CITY OF CHICAGO
DEPARTMENT OF FINANCE

MEMORANDUM

To: The Honorable Pat Dowell
Chairman, Committee on the Budget and Government Operations

From: Jennie Huang Bennett
Chief Financial Officer

CC: Manuel Perez
Mayor's Office of Intergovernmental Affairs

Date: October 29, 2020

Re: Request for Information from Annual Appropriation Committee Hearing

ID#: 27-01 Meters

The following information is provided in response to questions posed at our department's hearing on October 26 to discuss the proposed 2021 budget.

Alderman Hadden asked how many parking meters were added last year and how much revenue was projected from it.

	2019		2020*	
	Spaces	Estimated Value	Spaces	Estimated Value
New	524	$3.19M	446	$2.11M
Reinstalled	354	$1.99M	236	$844K
Removed	(706)	$(1.99M)	(481)	$(1.86M)
TOTAL	**172**	**$3.19M**	**201**	**$1.10M**

**Through mid-October*

The 2020 Budget Ordinance specifically called for the addition of approximately 1,000 new spaces, of which, to date, 281 have been installed.

As always, please let me know if you have any further questions.

CITY OF CHICAGO

DEPARTMENT OF FINANCE

MEMORANDUM

To: The Honorable Pat Dowell
Chairman, Committee on the Budget and Government Operations

From: Reshma Soni
City Comptroller
Department of Finance

CC: Manuel Perez
Mayor's Office of Intergovernmental Affairs

Date: October 28, 2020

Re: Request for Information from Annual Appropriation Committee Hearing

ID#: 27-02 Cameras

The following information is provided in response to questions posed at our department's hearing on October 26, 2020 to discuss the proposed 2021 budget.

Alderman Hadden asked for a breakdown of the new Speed Enforcement Camera revenue.

The increase of $38.8 million of fines and fees revenue in 2021 compared to 2020 is comprised of $10 million of additional accounts receivable collections and $28.8 million related to stricter enforcement of safety-related violations related to commercial vehicles in the central business district and speed-camera enforcement.

As always, please let me know if you have any further questions.

CITY OF CHICAGO

DEPARTMENT OF FINANCE

MEMORANDUM

To: The Honorable Pat Dowell
Chairman, Committee on the Budget and Government Operations

From: Department Head: Jennie Bennett
Title: Chief Financial Officer
Department: Office of the Mayor

CC: Manuel Perez
Mayor's Office of Intergovernmental Affairs

Date: October 28, 2020

Re: Request for Information from Annual Appropriation Committee Hearing

ID#: 27-03 Refinance

The following information is provided in response to questions posed at our department's hearing on October 26, 2020 to discuss the proposed 2021 budget.

Alderman Beale asked for:
1) A list of the bonds being refinanced by the proposed refunding
2) The interest rate on the refunded bonds and the interest rate on the refunding bonds
3) A savings report by maturity

14 series of bonds are currently expected to be refunded in whole or in part by the proposed transaction.

The interest rate (coupon) on the refunding bonds is currently projected to be approximately 4%. This rate is not final and may change based on market conditions and other considerations.

The interest rate (coupon) on the refunded bonds is currently projected to be approximately 5%. This rate is not final and may change based on market conditions and other considerations.

Providing public estimates of the specific series of bonds being refunded and savings by maturity at this time may adversely affect the City's ability to get the best possible pricing for the City as it will alter secondary market trading and influence the price of the anticipated bond issuance.

As always, please let me know if you have any further questions.

CITY OF CHICAGO

DEPARTMENT OF FINANCE

MEMORANDUM

To:	The Honorable Pat Dowell Chairman, Committee on the Budget and Government Operations
From:	Jennie Bennett Chief Financial Officer
CC:	Manuel Perez Mayor's Office of Intergovernmental Affairs
Date:	October 28, 2020
Re:	Request for Information from Annual Appropriation Committee Hearing
ID#:	27-04 Rating

The following information is provided in response to questions posed at our department's hearing on October 26, 2020 to discuss the proposed 2021 budget.

Alderman Hairston asked for a written statement from the rating agencies regarding the amount of reserve use by the City that would result in a downgrade.

Rating agencies are typically unable to provide direct guidance on what actions will lead to downgrades as rating agencies are barred from providing advice or direct feedback on scenarios which will affect a rating. Since the financial crisis and passage of Dodd-Frank, ratings agencies are precluded from providing this type of direct feedback on single rating metric. First, the process requires considering all metrics in total in determining a final rating outcome. Second, an analyst is unable to provide feedback individually: a rating impact can only be provided by a formal rating committee review. Even then, the impact of a specific metric is not singled out. The following quotes provide some guidance:

Fitch, October 28, 2020
Factors that could, individually or collectively, lead to negative rating action/downgrade:
The City does not present a comprehensive and plausible path to unwind non-structural fiscal measures and avoid a material erosion of reserves and financial resilience or exacerbation of the resource base to meet its long-term liability burden.

S&P, October 23, 2020
"If the city's final budget and management's plans to address potential pressures beyond 2021 don't make sufficient progress to return to structural balance, the rating will be pressured further. **In our view, a sustained deterioration in liquidity or reserves could also negatively pressure the rating**."

S&P, April 24, 2020
"If progress toward structural budget balance and full actuarial funding of pensions is impeded due to the recession, we could lower the rating. **A sustained deterioration in liquidity or reserves could also negatively pressure the rating**. A revision to a stable outlook would be predicated on successful implementation of a structurally sound approach to balancing operations in light of the economic pressures, particularly keeping pension funding on track."

Fitch, December 6, 2019
"The Stable Outlook incorporates Fitch's expectation that the city will continue to progress toward structural budgetary balance, including progress toward actuarially sustainable pension contributions, and **maintain reserves commensurate with the rating throughout the economic cycle. A reversal of this trend could lead to negative rating action."**

Kroll, December 4, 2019
"KBRA would view significant use of long-term reserves for operations as an unfavorable action with potential negative rating implications."

S&P, November 26, 2019
"Other actions that could result in a downward rating pressure include if: The City were to draw down on its reserves."

As always, please let me know if you have any further questions.

CITY OF CHICAGO

DEPARTMENT OF FINANCE

MEMORANDUM

To: The Honorable Pat Dowell
Chairman, Committee on the Budget and Government Operations

From: Department Head: Jennie Bennett
Title: Chief Financial Officer
Department: Office of the Mayor

CC: Manuel Perez
Mayor's Office of Intergovernmental Affairs

Date: October 28, 2020

Re: Request for Information from Annual Appropriation Committee Hearing

ID#: 27-05 Rating Report

The following information is provided in response to questions posed at our department's hearing on October 26, 2020 to discuss the proposed 2021 budget.

Alderman King asked for City of Chicago rating reports from the last five years.

Rating reports are enclosed.

As always, please let me know if you have any further questions.

FitchRatings

Fitch Rates $1.1B Chicago (IL) GO Bonds 'BBB-'; Outlook Stable

Fitch Ratings-New York-04 January 2017: Fitch Ratings has assigned a 'BBB-' rating to the following Chicago, Illinois general obligation (GO) bonds:

--$870.3 million GO bonds, project and refunding series 2017A;
--$275.3 million GO bonds, taxable project series 2017B.

Fitch also has affirmed the following Chicago ratings:

--Long-Term Issuer Default Rating (IDR) at 'BBB-';
--$9 billion outstanding unlimited tax general obligation bonds at 'BBB-'.

The Rating Outlook is Stable.

The 2017 bonds are expected to be sold the week of January 16th.

SECURITY
The bonds are payable from the city's full faith and credit and its ad valorem tax, without limitation as to rate or amount.

KEY RATING DRIVERS

The 'BBB-' rating and Stable Outlook incorporate the recently enacted material increase in funding to the city's pensions. The chronic underfunding of pensions over many years has resulted in a high and growing long-term liability burden and constrained expenditure-cutting flexibility. Aside from its pension funding issues, Chicago's financial profile has markedly improved in recent years, although full structural balance remains a challenge, and the city's financial cushion provides solid capacity to address cyclical downturns. The rating recognizes the city's role as an economic hub for the Midwestern region of the United States, supporting solid revenue growth prospects, as well as the city's unlimited independent legal authority to raise revenues, a key credit strength.

Economic Resource Base
Chicago serves as the economic and cultural center for the Midwestern region of the United States. The city's population totaled 2.7 million in 2015, up 1% from the 2010 census, and accounts for 21% of the state's population. Socioeconomic indicators are mixed with elevated individual poverty rates but above-average per capita income levels and strong educational attainment levels.

Revenue Framework: 'aa' factor assessment
Fitch expects slow, steady economic recovery to lead to continued solid revenue growth, excluding the effect of new or raised taxes and fees. The city's home rule status affords it access to a wide variety of revenue-raising options, many of which are legally unlimited.

Expenditure Framework: 'bb' factor assessment
Carrying costs for debt service and retiree benefits equal a substantial portion of operating resources. Public safety, which is fairly inflexible as a practical matter, comprises a majority of general fund spending, further constraining expenditure flexibility. Rising pension costs will continue to drive expenditures to grow at a much faster natural pace than revenues, likely necessitating ongoing revenue-raising measures and careful expenditure control.

Long-Term Liability Burden: 'bbb' factor assessment
The long-term liability burden is high relative to the resource base at 39% of personal income, and expected to rise as the city phases in actuarial funding of pension contributions.

Operating Performance: 'a' factor assessment
The city's ability to close recessionary revenue gaps is strong. This is a function of the city's strong revenue-raising flexibility and long-term reserves available to offset the expected level of revenue volatility in a downturn.

RATING SENSITIVITIES
Improved Pension Prospects: A demonstrated improvement in pension plan prospects as evidenced by a trend of rising asset-to-liability ratios as well as a reduction in the overall long-term liability burden could result in an upgrade. Failure to achieve such improvement in the medium term could put negative pressure on the rating.

Structural Balance: The Stable Outlook incorporates Fitch's expectation that the city will continue to make progress toward structural balance according to its announced plan and maintain reserves commensurate with the rating throughout the economic cycle. Achievement of recurring structural balance, including actuarially based pension funding, would improve prospects for the rating.

CREDIT PROFILE

Chicago acts as the economic engine for the Midwestern region of the U.S. The city's residents are afforded abundant employment opportunities within this deep and diverse regional economy. The city also benefits from an extensive infrastructure network, including a vast rail system, which supports continued growth. The employment base is represented by all major sectors with concentrations in the wholesale trade, professional and business services and financial sectors. Socioeconomic indicators are mixed as is typical for an urbanized area, with above-average per capita income and educational levels but also elevated individual poverty rates.

Revenue Framework

Operating revenues are diverse, with the largest source, state and local sales tax, comprising 19% of general fund revenues. Other large sources include the utility tax, transaction tax, fines, and income tax which account for 13%, 11%, 11% and 10%, respectively. Notably, property taxes do not fund general fund operations, but are directed to other funds in support of debt service, pensions, and a small amount of library contributions.

Growth prospects for revenue are solid. Fitch believes that natural revenue growth, without taking into account planned rate increases, will continue to perform in a manner that exceeds the rate of inflation, but falls short of national GDP. After a long period without major revenue-raising policy action, the city has raised a variety of taxes and fees to provide funding for dramatically increased pension funding.

The city is a home-rule unit of government, and as such, enjoys the ability to raise or impose a wide variety of taxes and fees, many of which are legally unlimited.

Expenditure Framework

The city devotes 60% of the general fund budget to public safety and 31% for general government.

Fitch expects the natural pace of spending growth to be well above that of revenues, requiring careful budget management. The fastest growing expenditure item is pension contributions as the city ramps up from statutory to actuarially-based contributions over the next several years. The city has identified revenue sources for much of these in the near term, and intends to continue raising revenues to offset these rising costs in the out years.

Expenditure flexibility is constrained, given the large proportion of the budget devoted to public safety, which may be difficult to cut as a practical matter, and very high fixed carrying costs. The carrying costs for debt service, actuarially required pension contributions and other post-employment benefit (OPEB) actual payments account for 38% of governmental fund spending, taking into account enterprise fund support. That percentage may decline somewhat in the near term as overall spending rises due to ramped-up pension payments that are closer to the actuarially determined contribution, but will still comprise an outsized proportion of the budget.

Long-Term Liability Burden

The long-term liability burden for total debt (direct and overlapping) and net pension liability (net of enterprise fund liability) is high, at 39% of personal income. Sixty percent of the liability relates to net pension liability (NPL), which Fitch anticipates will rise in the near term before ramped-up payments reverse the negative trend and the NPL stabilizes or declines. The fiscal 2015 combined NPL for all four of the city's plans was reported at $30 billion (excluding the enterprise funds' portion of the liability) with assets covering a scant 23% of liabilities, raising the real risk of plan depletion.

The city maintains four single-employer defined benefit pension plans, all of which have weak asset-to-liability ratios, due to an historical statutory funding formula that fell well short of actuarial requirements. In fiscal 2014 the combined actual pension contribution amounted to just a quarter of the actuarially required amount. That percentage improved in fiscal 2015, to 52%; while this is still well short of the mark, it represents the beginning of a multi-year step-up to higher, more actuarially sustainable pension contributions.

A new state law, effective fiscal 2016, requires increased funding for two of the city's plans: police and fire. The law requires a contribution that would be sufficient to bring both systems to a 90% funding level by 2055. It allows a five-year ramp-up period to the 90% actuarially based funding level which will be reached by 2020. The city council passed a multi-year property tax increase to accommodate the steep increase in payments ($330 million in fiscal 2016) for the public safety plans.

Following an adverse state supreme court decision which overturned the city's pension reform legislation for its Municipal and Laborers' plans, management negotiated in principal new pension solvency plans with labor that are designed to be compliant with Illinois' strict constitutional pension protections. The new plans identify sources for increased funding without diminishing existing benefits. The Laborers' plan will rely on a 911 cell phone fee for its increased payments in the near term, while the Municipal Employees' plan will receive revenue from a tax on water and sewer charges to fund its payment increases. Both new revenue sources have been approved by the city council.

The state legislature has not yet approved the changes to the Municipal and Laborers' (M&L) plans, but city officials expect passage in early 2017. Fitch believes the increased funding represented by these reform plans is crucial to avoiding M&L fund depletion and the onerous pay-as-you-go benefit payment schedule that could result. Assuming passage of the legislation, pension actuarial projections for the M&L plans show very slow improvement to a 90% funded level by 2060. With or without the reform plans, projections show contributions for the M&L plans peaking at roughly $2 billion in the 2055-2060 period. However, the reform plan allows for a smoother increase in payments, while under existing law the required payments would increase six-fold over a six-year period, going from $218 million in 2024 to $1.5 billion in 2030.

Operating Performance

Reserve levels -- including those stemming from prior asset sales/leases -- have stabilized over the last several years, standing at 23.7% of spending in fiscal 2015. The city relies on a variety of revenue sources to fund operations, some of which are economically sensitive. During a normal economic downturn, Fitch's FAST model estimates the city's revenues are at risk of a slightly elevated rate of decline, leaving the city with a fairly substantial shortfall to address. Fitch believes this would present a challenge to the city's financial operations in a downturn, but expects that financial flexibility would be recovered as conditions improve. Recent extensive revenue-raising measures that have been enacted make it unlikely the city would rely solely on its revenue-raising authority to close such a recessionary revenue gap. Similarly, the constrained expenditure flexibility makes it unlikely that the city could make meaningful spending cuts to address the gap. As such, Fitch believes that while the city may take some revenue- or expenditure-side policy action to address a recessionary revenue decline, reserve levels would bear the brunt of the shortfall, but would remain at levels consistent with the 'a' operating performance assessment throughout the economic cycle.

Chicago's budget management at times of economic recovery has improved markedly in recent years; although full structural balance remains a challenge even well into the economic recovery. Management has made significant progress toward matching ongoing revenues with annual expenditures. Fitch considers sustainable, affordable, actuarially-based pension funding, like those that have been recently enacted, a critical component of structural balance. Successful execution of the city's plan toward financially sustainable practices would be considered a positive rating factor. Remaining plan elements include the elimination of scoop-and-toss refundings by 2019, elimination of the use of current funds to pay routine legal settlements or judgments, and growth of the rainy day fund.

The fiscal 2015 general fund budget was balanced with a reduced but still significant amount of one-time measures, including scoop-and-toss refunding. The year ended with a $74.6 million net general fund operating surplus (2.2%), largely attributable to underspending of budgeted expenditures.

The $3.6 billion fiscal 2016 general fund budget closed the previously identified budget gap of $232.6 million through a variety of recurring and one-time measures and no appropriation of general fund balance. Preliminary fiscal 2016 results indicate even operations for the year.

The city did not appropriate reserves in fiscals 2015 or 2016. The fiscal 2017 budget includes a small amount of appropriated reserves ($37 million) and also includes funding for 1,000 new police officers.

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Additional information is available at 'www.fitchratings.com'.

In addition to the sources of information identified in the applicable criteria specified below, this action was informed by information from Lumesis and InvestorTools.

Applicable Criteria
U.S. Tax-Supported Rating Criteria (pub. 18 Apr 2016) (https://www.fitchratings.com/site/re/879478)

Additional Disclosures
Dodd-Frank Rating Information Disclosure Form (https://www.fitchratings.com/creditdesk/press_releases/content/ridf_frame.cfm?pr_id=1017185&cft=eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJzZXNzaW9uS2V5IjoiQ1hDNE5UV1dMU1NDMUtSWVA2MFpNOEhRV0VWSllVMkRLWlZDVEVWNyIsImV4cCI6MTQ5NjE1MzYxMywidXNlckIkIjoyNDg0NDU5fQ.xIS6NpKyyOINJB7doTGnkEmr6m5Pbpjri71_tyGC3y8)
Solicitation Status (https://www.fitchratings.com/gws/en/disclosure/solicitation?pr_id=1017185)
Endorsement Policy (https://www.fitchratings.com/regulatory)

Solicitation Status

Fitch Ratings was paid to determine each credit rating announced in this Rating Action Commentary (RAC) by the obligatory being rated or the issuer, underwriter, depositor, or sponsor of the security or money market instrument being rated, except for the following:

Endorsement Policy - Fitch's approach to ratings endorsement so that ratings produced outside the EU may be used by regulated entities within the EU for regulatory purposes, pursuant to the terms of the EU Regulation with respect to credit rating agencies, can be found on the EU Regulatory Disclosures (https://www.fitchratings.com/regulatory) page. The endorsement status of all International ratings is provided within the entity summary page for each rated entity and in the transaction detail pages for all structured finance transactions on the Fitch website. These disclosures are updated on a daily basis.

Chicago, Illinois

New Issue Report

Ratings

Long-Term Issuer Default Rating	BBB–
New Issues	
General Obligation Bonds Project and Refunding, Series 2017A	BBB–
General Obligation Bonds Taxable Project, Series 2017B	BBB–
Outstanding Debt	
General Obligation Bonds	BBB–

Rating Outlook

Stable

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New Issue Summary

Sale Date: The week of Jan. 16 via negotiation.

Series: $865,000,000 General Obligation Bonds Project and Refunding, Series 2017A, and $275,000,000 General Obligation Bonds Taxable Project, Series 2017B.

Purpose: Series A will finance certain 2017 capital projects and capitalized interest, refund certain bonds and pay the costs of issuance. Series B will finance certain 2017 capital projects, pay judgments and settlements, pay down lines of credit and pay the costs of issuance.

Security: General obligation, unlimited tax.

The 'BBB–' ratings and Stable Rating Outlook reflect the recently enacted material increase in funding to the city's pensions. The chronic underfunding of pensions over many years has resulted in a high and growing long-term liability burden and constrained expenditure-cutting flexibility.

Aside from its pension funding issues, Chicago's (the city) financial profile has markedly improved in recent years, although full structural balance remains a challenge, and the city's financial cushion provides solid capacity to address cyclical downturns. The ratings reflect the city's role as an economic hub for the Midwest region of the U.S., supporting solid revenue growth prospects, as well as the city's unlimited independent legal authority to raise revenues, a key credit strength.

Key Rating Drivers

Economic Resource Base: Chicago serves as the economic and cultural center for the Midwest region of the U.S. The city's population totaled 2.7 million in 2015, up 1% from the 2010 Census and accounts for 21% of the state's population. Socioeconomic indicators are mixed, with elevated individual poverty rates but above-average per-capita income levels and strong educational attainment levels.

Revenue Framework: 'aa' factor assessment. Fitch Ratings expects slow, steady economic recovery to lead to continued solid revenue growth, excluding the effect of new or raised taxes and fees. The city's home rule status affords it access to a wide variety of revenue-raising options, many of which are legally unlimited.

Expenditure Framework: 'bb' factor assessment. Carrying costs for debt service and retiree benefits equal a substantial portion of operating resources. Public safety, which is fairly inflexible as a practical matter, comprises a majority of general fund spending, further constraining expenditure flexibility. Rising pension costs will continue to drive expenditures to grow at a much faster natural pace than revenues, likely necessitating ongoing revenue-raising measures and careful expenditure control.

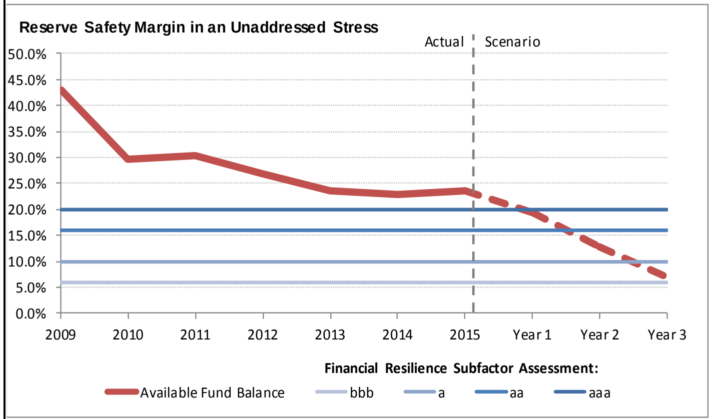
Long-Term Liability Burden: 'bbb' factor assessment. The long-term liability burden is high relative to the resource base, at 39% of personal income, and is expected to rise as the city phases in actuarial funding of pension contributions.

Operating Performance: 'a' factor assessment. The city's ability to close recessionary revenue gaps is strong. This is a function of the city's strong revenue-raising flexibility and long-term reserves available to offset the expected level of revenue volatility in a downturn.

Chicago (IL)

Scenario Analysis

v. 1.10 2016/06/22



Analyst Interpretation of Scenario Results:

Reserve levels have stabilized over the last several years, standing at 23.7% of spending in fiscal 2015. The city relies on a variety of revenue sources to fund operations, some of which are economically sensitive. During a normal economic downturn Fitch estimates the city's revenues are at risk of a slightly elevated rate of decline, leaving the city with a fairly substantial shortfall to address. Fitch believes this would present a challenge to the city's financial operations in a downturn but expects that financial flexibility would be recovered as conditions improve. Recent extensive revenue-raising measures make it is unlikely the city would rely solely on its revenue-raising authority to close such a recessionary gap. Similarly, the constrained expenditure flexibility makes it unlikely that the city could make meaningful spending cuts to address the gap. As such, Fitch believes that while the city may take some revenue- or expenditure-side policy action to address a revenue decline reserve levels would bear the brunt of the shortfall but would remain at levels consistent with the rating throughout the economic cycle.

Scenario Parameters:	Year 1	Year 2	Year 3
GDP Assumption (% Change)	(1.0%)	0.5%	2.0%
Expenditure Assumption (% Change)	2.0%	2.0%	2.0%
Revenue Output (% Change)	(4.0%)	(0.6%)	2.9%
Inherent Budget Flexibility	Midrange		

Revenues, Expenditures, and Fund Balance	Actuals							Scenario Output		
	2009	2010	2011	2012	2013	2014	2015	Year 1	Year 2	Year 3
Total Revenues	2,561,626	2,610,852	2,781,166	2,920,656	3,030,491	3,176,150	3,466,635	3,328,594	3,309,987	3,404,785
% Change in Revenues	-	1.9%	6.5%	5.0%	3.8%	4.8%	9.1%	(4.0%)	(0.6%)	2.9%
Total Expenditures	3,014,077	3,033,941	3,040,436	3,081,369	3,109,074	3,231,258	3,433,102	3,501,764	3,571,799	3,643,235
% Change in Expenditures	-	0.7%	0.2%	1.3%	0.9%	3.9%	6.2%	2.0%	2.0%	2.0%
Transfers In and Other Sources	474,635	519,002	467,744	86,617	21,018	39,700	53,851	51,707	51,418	52,890
Transfers Out and Other Uses	17,463	13,600	14,357	26,965	10,583	10,081	12,760	13,015	13,276	13,541
Net Transfers	457,172	505,402	453,387	59,652	10,435	29,619	41,091	38,691	38,142	39,349
Bond Proceeds and Other One-Time Uses	-	-	-	-	-	-	-	-	-	-
Net Operating Surplus(+)/Deficit(-) After Transfers	4,721	82,313	194,117	(101,061)	(68,148)	(25,489)	74,624	(134,479)	(223,670)	(199,101)
Net Operating Surplus(+)/Deficit(-) (% of Expend. and Transfers Out)	0.2%	2.7%	6.4%	(3.3%)	(2.2%)	(0.8%)	2.2%	(3.8%)	(6.2%)	(5.4%)
Unrestricted/Unreserved Fund Balance (General Fund)	2,658	81,151	311,478	210,417	142,269	116,780	191,404	56,925	(166,745)	(365,847)
Other Available Funds (Analyst Input)	1,297,480	825,917	618,895	624,849	590,198	626,045	624,465	624,465	624,465	624,465
Combined Available Funds Balance (GF + Analyst Input)	1,300,138	907,068	930,373	835,266	732,467	742,825	815,869	681,390	457,720	258,618
Combined Available Fund Bal. (% of Expend. and Transfers Out)	42.9%	29.8%	30.5%	26.9%	23.5%	22.9%	23.7%	19.4%	12.8%	7.1%

Reserve Safety Margins	Inherent Budget Flexibility				
	Minimal	Limited	Midrange	High	Superior
Reserve Safety Margin (aaa)	63.7%	31.9%	19.9%	11.9%	8.0%
Reserve Safety Margin (aa)	47.8%	23.9%	15.9%	10.0%	6.0%
Reserve Safety Margin (a)	31.9%	15.9%	10.0%	6.0%	4.0%
Reserve Safety Margin (bbb)	11.9%	8.0%	6.0%	4.0%	2.0%

Notes: Scenario analysis represents an unaddressed stress on issuer finances. Fitch's downturn scenario assumes a -1.0% GDP decline in the first year, followed by 0.5% and 2.0% GDP growth in Years 2 and 3, respectively. Expenditures are assumed to grow at a 2.0% rate of inflation. Inherent budget flexibility is the analyst's assessment of the issuer's ability to deal with fiscal stress through tax and spending policy choices, and determines the multiples used to calculate the reserve safety margin. For further details, please see Fitch's US Tax-Supported Rating Criteria.

Rating History (IDR)

Rating	Action	Outlook/ Watch	Date
BBB–	Affirmed	Stable	1/4/17
BBB–	Affirmed	Stable	8/30/16
BBB–	Downgraded	Negative	3/28/16
BBB+	Affirmed	Negative	7/3/15
BBB+	Downgraded	Negative[a]	5/15/15
A–	Downgraded	Negative	11/8/13
AA–	Affirmed	Negative[a]	6/26/13
AA–	Downgraded	Stable	10/28/10
AA	Downgraded	Negative	8/5/10
AA+	Revised	Negative	4/30/10
AA	Affirmed	Negative	10/2/09
AA	Upgraded	Stable	7/28/05
AA–	Affirmed	Positive	2/17/05
AA–	Affirmed	Stable	8/7/03
AA–	Upgraded	—	4/28/98
A+	Assigned	—	3/4/97

[a]Rating Watch.

Related Research

Fitch Rates $1.1B Chicago (IL) GO Bonds 'BBB–'; Outlook Stable (January 2017)

Related Criteria

U.S. Tax-Supported Rating Criteria (April 2016)

Rating Sensitivities

Improved Pension Prospects: A demonstrated improvement in pension plan prospects as evidenced by a trend of rising asset-to-liability ratios as well as a reduction in the overall long-term liability burden could result in an upgrade. Failure to achieve such improvement in the medium term could put negative pressure on the ratings.

Structural Balance: The Stable Rating Outlook reflects Fitch's expectation that the city will continue to make progress toward structural balance according to its announced plan and maintain reserves commensurate with the rating throughout the economic cycle. Achievement of recurring structural balance, including actuarially based pension funding, would improve prospects for the ratings.

New Issue Details

The 2017 bonds are expected to be sold the week of Jan. 16.

Credit Profile

Chicago acts as the economic engine for the Midwest region of the U.S. The city's residents are afforded abundant employment opportunities within this deep and diverse regional economy. The city also benefits from an extensive infrastructure network, including a vast rail system, which supports continued growth. The employment base is represented by all major sectors, with concentrations in the wholesale trade, professional and business services and financial sectors. Socioeconomic indicators are mixed, as is typical for an urbanized area, with above-average per capita income and educational levels but also elevated individual poverty rates.

Revenue Framework

Operating revenues are diverse, with the largest source, state and local sales tax, comprising 19% of general fund revenues. Other large sources include the utility tax, transaction tax, fines and income tax, which account for 13%, 11%, 11% and 10%, respectively. Notably, property taxes do not fund general fund operations but are directed to other funds in support of debt service, pensions and a small amount of library contributions.

Growth prospects for revenue are solid. Fitch believes that natural revenue growth, without taking into account planned rate increases, will continue to perform in a manner that exceeds the rate of inflation but falls short of national GDP. After a long period without major revenue-raising policy action, the city has raised a variety of taxes and fees to provide funding for dramatically increased pension funding.

The city is a home-rule unit of government and, as such, enjoys the ability to raise or impose a wide variety of taxes and fees, many of which are legally unlimited.

Expenditure Framework

The city devotes 60% of the general fund budget to public safety and 31% for general government.

Fitch expects the natural pace of spending growth to be well above that of revenues, requiring careful budget management. The fastest growing expenditure item is pension contributions as the city ramps up from statutory to actuarially based contributions over the next several years. The city has identified revenue sources for much of these in the near term and intends to continue raising revenues to offset these rising costs in the out years.

Expenditure flexibility is constrained, given the large proportion of the budget devoted to public safety, which may be difficult to cut as a practical matter, and very high fixed carrying costs. The carrying costs for debt service, actuarially required pension contributions and OPEB payments account for 38% of governmental fund spending, taking into account enterprise fund support. That percentage may decline somewhat in the near term, as overall spending rises due to ramped-up pension payments that are closer to the actuarially determined contribution, but will still comprise an outsized proportion of the budget.

Long-Term Liability Burden

The long-term liability burden for total debt (direct and overlapping) and net pension liability (net of enterprise fund liability) is high, at 39% of personal income. Sixty percent of the liability relates to net pension liability, which Fitch anticipates will rise in the near term before ramped-up payments reverse the negative trend and the net pension liability stabilizes or declines. The fiscal 2015 combined net pension liability for all four of the city's plans was reported at $30 billion (excluding the enterprise funds' portion of the liability), with assets covering a scant 23% of liabilities, raising the real risk of plan depletion.

The city maintains four single-employer defined-benefit pension plans, all of which have weak asset-to-liability ratios due to a historical statutory funding formula that fell well short of actuarial requirements. In fiscal 2014, the combined actual pension contribution amounted to just one-quarter of the actuarially required amount. That percentage improved in fiscal 2015, to 52%. While this is still well short of the mark, it represents the beginning of a multiple-year step up to higher, more actuarially sustainable pension contributions.

A new state law, effective fiscal 2016, requires increased funding for two of the city's plans: police and fire. The law requires a contribution that would be sufficient to bring both systems to a 90% funding level by 2055. It allows a five-year ramp-up period to the 90% actuarially based funding level, which will be reached by 2020. The city council passed a multiyear property tax increase to accommodate the steep increase in payments ($330 million in fiscal 2016) for the public safety plans.

Following an adverse state supreme court decision, which overturned the city's pension reform legislation for its municipal and laborers' (M&L) plans, management negotiated in principle new pension solvency plans with labor that are designed to be compliant with Illinois' strict constitutional pension protections. The new plans identify sources for increased funding without diminishing existing benefits. The laborers' plan will rely on a 911 cell phone fee for its increased payments in the near term, while the municipal employees' plan will receive revenue from a tax on water and sewer charges to fund its payment increases. Both new revenue sources have been approved by the city council.

The state Legislature has not yet approved the changes to the M&L plans, but city officials expect passage in early 2017. Fitch believes the increased funding represented by these reform plans is crucial to avoiding M&L fund depletion and the onerous pay-as-you-go benefit payment schedule that could result. Assuming passage of the legislation, pension actuarial projections for the M&L plans show very slow improvement to a 90%-funded level by 2060. With or without the reform plans, projections show contributions for the M&L plans peaking at roughly $2 billion in the fiscal years 2055–2060 period. However, the reform plan allows for a smoother increase in payments while, under existing law, the required payments would increase sixfold over a six-year period, going to $1.5 billion in fiscal 2030 from $218 million in fiscal 2024.

Operating Performance

Reserve levels have stabilized over the past several years, standing at 23.7% of spending in fiscal 2015. For details, see Scenario Analysis on page 2.

Chicago's budget management at times of economic recovery has improved markedly in recent years, although full structural balance remains a challenge even well into the economic recovery. Management has made significant progress toward matching ongoing revenues with annual expenditures. Fitch considers sustainable, affordable, actuarially based pension funding, like what has been recently enacted, a critical component of structural balance. Successful execution of the city's plan toward financially sustainable practices would be considered a positive rating factor. Remaining plan elements include the elimination of scoop-and-toss refundings by fiscal 2019, elimination of the use of current funds to pay routine legal settlements or judgments and growth of the rainy day fund.

The fiscal 2015 general fund budget was balanced with a reduced but still significant amount of one-time measures, including scoop-and-toss refunding. The year ended with a $74.6 million net general fund operating surplus (2.2%), largely attributable to underspending of budgeted expenditures.

The $3.6 billion fiscal 2016 general fund budget closed the previously identified budget gap of $232.6 million through a variety of recurring and one-time measures, with no appropriation of general fund balance. Preliminary fiscal 2016 results indicate even operations for the year.

The city did not appropriate reserves in fiscal years 2015 or 2016. The fiscal 2017 budget includes a small amount of appropriated reserves ($37 million) and funding for 1,000 new police officers.

The ratings above were solicited by, or on behalf of, the issuer, and therefore, Fitch has been compensated for the provision of the ratings.

FITCH RATES CHICAGO, IL $707.6MM GO BONDS 'BBB-'; OUTLOOK STABLE

Fitch Ratings-New York-14 March 2019: Fitch Ratings has assigned a 'BBB-' rating to the following Chicago, IL bonds:

--$707,645,000 general obligation (GO) bonds, series 2019A.

Fitch has also affirmed the following 'BBB-' ratings:

--Approximately $7.4 billion outstanding unlimited tax GO bonds;
--Long-Term Issuer Default Rating (IDR).

The Rating Outlook is Stable.

Bond proceeds will provide financing for various capital projects, along with capitalized interest and costs of issuance. Proceeds will also retire $150 million of commercial paper, which was used to provide interim capital financing of certain projects. The bonds are expected to price the week of March 25.

SECURITY
The bonds are payable from the city's full faith and credit and its ad valorem tax, without limitation as to rate or amount.

ANALYTICAL CONCLUSION

The 'BBB-' IDR and GO ratings and Stable Outlook recognize the city's role as an economic hub for the Midwestern region of the U.S., supporting solid revenue growth prospects, as well as the city's unlimited independent legal authority to raise revenues. The ratings also consider the city's high and growing long-term liability burden, constrained expenditure flexibility and improving financial profile. The city's reserve cushion provides solid capacity to address cyclical downturns, given expected revenue volatility.

Economic Resource Base
Chicago serves as the economic and cultural center for the Midwestern region of the U.S.. The city's population totaled 2.7 million in 2017 up 0.8% from the 2010 census, and accounts for 21% of the state's population. Socioeconomic indicators are mixed with elevated individual poverty rates but income levels that exceed the state and nation and strong educational attainment levels.

KEY RATING DRIVERS

Revenue Framework: 'aa'
Fitch expects slow, steady economic expansion to lead to continued solid revenue growth, excluding the effect of new or raised taxes and fees. The city's home rule status affords it access to a wide variety of revenue-raising options, many of which are legally unlimited.

Expenditure Framework: 'bb'
Carrying costs for debt service and retiree benefits equal a substantial portion of operating resources. Public safety, which is fairly inflexible as a practical matter, comprises a majority of general fund spending, further constraining expenditure flexibility. Rising pension costs

will continue to drive expenditures to grow at a much faster natural pace than revenues, likely necessitating ongoing revenue-raising measures and careful expenditure control.

Long-Term Liability Burden: 'bbb'
The long-term liability burden is high relative to the resource base at 37% of personal income, and expected to climb further as the city phases into actuarial funding of pension contributions.

Operating Performance: 'a'
The city's ability to close recessionary revenue gaps is strong and is a function of the city's high revenue raising flexibility and long-term reserves that are available to offset the expected level of revenue volatility in a downturn.

RATING SENSITIVITIES
Continued Pension Pressure: The 'BBB-' rating recognizes the improved pension funding framework the city recently implemented as well as the continued challenges associated with stabilizing or decreasing adjusted net pension liabilities. Upward rating momentum is unlikely until annual contributions are sufficient to accomplish this stabilization, but failure to show progress according to the city's plan could put negative pressure on the rating.

Structural Balance: The Stable Outlook incorporates Fitch's expectation that the city will continue to make progress toward structural budgetary balance, including progress toward actuarially-sustainable pension contributions, and maintain reserves commensurate with the rating throughout the economic cycle. A reversal of this trend could lead to negative rating action.

CREDIT PROFILE

Chicago acts as the economic engine for the Midwestern region of the U.S. and offers abundant and diverse employment opportunities. The city also benefits from an extensive infrastructure network, including a vast rail system, which supports continued economic growth. The employment base is represented by all major sectors including wholesale trade, professional and business services and financial sectors, with no one sector dominating. Socioeconomic indicators are mixed as is typical for an urbanized area, with above-average per capita income and educational levels but also elevated individual poverty rates.

Revenue Framework
Operating revenues are diverse, with the largest source, state and local sales taxes, comprising 14% of 2017 general fund revenues. Sales taxes comprise a reduced percentage of general fund revenues since the creation of the Sales Tax Securitization Corporation (STSC) part way through 2017. The residual sales tax revenues, after STSC debt service, form a large part of the transfers in to the general fund. Other large sources include the transaction tax, utility tax, and income tax which accounted for 13%, 12%, and 11% of 2017 revenues, respectively. Notably, property taxes do not fund general fund operations, but are directed to other funds in support of debt service, pensions and a small amount of library contributions.

Growth prospects for revenue are solid. Fitch believes that natural revenue growth, without taking into account planned rate increases, will continue to exceed the rate of inflation, but fall short of national GDP growth. After a long period without major revenue-raising policy action, the city has raised a variety of taxes and fees to provide funding for dramatically increased pension funding.

The city is a home-rule unit of government, and as such, enjoys the ability to raise or impose a wide variety of taxes and fees, many of which are legally unlimited.

Expenditure Framework
The city devotes 65% of the general fund budget to public safety and 27% for general government.

Fitch expects the natural pace of spending growth to be well above that of revenues, requiring careful budget management. The fastest growing expenditure item will be pension contributions as the city ramps up from statutory to actuarially-based contributions over the next several years. The city has identified revenue sources for much of these contribution increases in the near-term, and intends to continue raising revenues to offset these rising costs in the out years.

Expenditure flexibility is constrained, given the large proportion of the budget devoted to public safety, which may be difficult to cut as a practical matter, and very high fixed carrying costs. The carrying costs for debt service, actuarially-required pension contributions and other post-employment benefit (OPEB) actual payments, accounted for a high 47% of 2017 governmental fund spending. That percentage may decline somewhat in the near term, as overall spending climbs due to ramped up pension payments that are closer to the actuarially determined contribution, but will still comprise an outsized proportion of the budget for the foreseeable future.

The city contributes to four single employer plans covering municipal employees, laborers, police and firefighters. Annual funding contributions had reflected calculations pursuant to state statute, leading to severe underfunding and further raising the actuarial contributions necessary to prefund the plans. Contribution levels have been increasing given recent policy changes that are devoting various new revenue streams toward contributions for each of the four plans. In 2017, the city paid over $1 billion in pension contributions, which was a 73% increase over the year before, but still only amounted to 42% of the actuarially-determined contribution (ADC).

Even if the city meets its target contributions for all four plans, which is expected in 2022, they will still fall short of the ADC, as the target is designed to reach an amount sufficient to provide a 90% funding ratio, rather than full prefunding. The city expects the 90% ratio to be achieved in 2055 for the police and fire plans and 2057 for the municipal and labor plans. Actuarial assumptions include a 30-year open amortization; one of several factors that are likely to produce little funding progress absent the plans' consistently exceeding their 7.0% to 7.5% investment return targets (which Fitch views as unlikely). Fitch calculates that the annual cost to amortize the Fitch-adjusted NPLs over 20 years with a 5% interest rate would equal $3.5 billion, or 1.4x the ADC.

Long-Term Liability Burden
The long-term liability burden for total debt (direct and overlapping) and adjusted net pension liability (NPL) is high, at 37% of personal income. Almost 60% of the liability relates to net pension liability. The city's recent assumed increases to contributions have been incorporated into the actuarial reports for the plans. These assumption changes contributed to the NPL declining by $7.7 billion in 2017. The Municipal plan's depletion date has been eliminated and the other three plans' depletion dates have been extended. The 2017 total adjusted NPL measures $33 billion, and the ratio of assets to liabilities improved to a still very weak 26% (23% when adjusted by Fitch to reflect a 6% discount rate).

For the city's public safety plans, a 2016 state law requires a five-year ramp up to an actuarial contribution by 2020. The city council passed a multi-year property tax increase to accommodate the resulting steep increase in contributions. For the laborers' plan, a 911 cell phone fee will support increased contributions, while the municipal employees' plan will receive revenue from a tax on water and sewer charges. Together, pension contributions for the four plans are slated to increase from approximately $1.2 billion in 2018 to $2.1 billion in 2022.

Amortization of GO, motor fuel and STSC debt is slow with about 30% scheduled for retirement in 10 years. STSC, a separate legal entity, has issued bonds to refund the city's outstanding sales tax bonds as well as some city GO debt.

Operating Performance
Reserve levels have stabilized over the last several years, standing at 25% of spending in 2017. The city relies on a variety of revenue sources to fund operations, some of which are economically sensitive. During a normal downturn Fitch estimates revenues are at risk of a slightly elevated rate of decline, leaving the city with a fairly substantial shortfall to address. This would present a challenge to the city's financial operations in a downturn, but financial flexibility would likely be recovered as conditions improve. Recent extensive revenue-raising measures make it unlikely the city would rely solely on its revenue-raising authority to close such a recessionary gap. Similarly, the constrained expenditure flexibility makes it unlikely that the city could make meaningful spending cuts to address the gap. As such, Fitch believes that while the city may take some revenue- or expenditure-side policy action to address a revenue decline, reserve levels would bear the brunt of the shortfall but would remain at levels consistent with the rating throughout the economic cycle.

Chicago's budget management at times of economic recovery has improved markedly in recent years, although full structural balance remains a challenge even during the current economic expansion. Management has made significant progress toward matching ongoing revenues with annual expenditures. Fitch considers sustainable, affordable, actuarially-based pension funding a critical component of structural balance. Successful execution of the city's plan to firmly establish financially sustainable practices would be considered a positive rating factor. The city has pledged not to engage in scoop-and-toss refundings, although Fitch notes that refundings may still extend maturities. Remaining plan elements include the elimination of the use of current funds to pay routine legal settlements or judgments, and growth of the 'rainy day fund.'

The 2018 corporate fund budget relied upon approximately $120 million of tax increment surplus and debt service savings from refunding (including principal deferrals), $50 million in expected growth in revenues, $39 million in revenue adjustments, $20 million in spending cuts, $11 million in improved enforcement and debt collection, and $37 million (less than 1% of spending) of appropriated unassigned general fund balance. As it has in recent years, the budget included a $5 million deposit into its rainy day fund. Fitch expects final results will not deviate materially from the budget.

The $10.7 billion 2019 general fund budget closed a $98 million budget gap-- the lowest such gap since 2007-- and provided $114 million of new spending. This achievement resulted from $74 million of spending cuts and reform, $27 million of cost recovery and charges for services (including reimbursement from Chicago Public Schools for security costs), $74 million of debt service and finance policy reforms (including account sweeps, refunded debt service savings, TIF surplus and changes to revenue projections), and $38 million related to the public safety investment fund. The budget includes funding for a variety of strategic investments, including implementation of a police department consent decree and a $10 million deposit to the rainy day fund.

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In addition to the sources of information identified in Fitch's applicable criteria specified below, this action was informed by information from Lumesis.

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Additional information is available on www.fitchratings.com

Applicable Criteria
U.S. Public Finance Tax-Supported Rating Criteria (pub. 03 Apr 2018)
https://www.fitchratings.com/site/re/10024656

FitchRatings

Public Finance
Tax-Supported
U.S.A

Chicago, Illinois

Ratings

Long Term Issuer Default Rating	BBB-

New Issue

$176,745,000 General Obligation Refunding Bonds, Series 2019B	BBB-

Outstanding Debt Details on Page 3

Rating Outlook

Stable

Applicable Criteria

U.S. Public Finance Tax-Supported Rating Criteria (April 2018)

Related Research

Fitch Rates Chicago, IL's $177MM GO Bonds 'BBB-'; Outlook Stable (November 2019)

New Issue Summary

Sale Date: Week of Dec. 9.
Series: General Obligation (GO) Bonds Refunding Series 2019B
Purpose: The bonds will refund various series of outstanding bonds for interest savings.
Security: Unlimited tax, general obligation.

The 'BBB-' Issuer Default Rating (IDR) and GO bond rating and Stable Outlook recognize the city's role as an economic hub for the Midwestern region of the U.S., supporting solid revenue growth prospects, as well as the city's unlimited independent legal authority to raise revenues. The rating also considers the city's high and growing long-term liability burden, constrained expenditure flexibility and improving financial profile. The city's reserve cushion provides solid capacity to address cyclical downturns, given expected revenue volatility.

Economic Resource Base: Chicago serves as the economic and cultural center for the Midwestern region of the U.S. The city's population totaled 2.7 million in 2018, up 0.4% from the 2010 census but has been declining in recent years; it accounts for 21% of the state's population. Socioeconomic indicators are mixed with elevated individual poverty rates, but income levels that exceed the state and nation and strong educational attainment levels.

Key Rating Drivers

Revenue Framework: 'aa': Fitch Ratings expects slow, steady economic expansion to lead to continued solid revenue growth, excluding the effect of new or raised taxes and fees. The city's home rule status affords it access to a wide variety of revenue-raising options, many of which are legally unlimited.

Expenditure Framework: 'bb': Carrying costs for debt service and retiree benefits equal a substantial portion of operating resources. Public safety, which is fairly inflexible as a practical matter, comprises a majority of general fund spending, further constraining expenditure flexibility. Rising pension costs will continue to drive expenditures to grow at a much faster natural pace than revenues, likely necessitating ongoing revenue-raising measures and careful expenditure control.

Long-Term Liability Burden: 'bbb': The long-term liability burden is high relative to the resource base at 37% of personal income and expected to climb further even as the city phases into actuarial funding of pension contributions.

Operating Performance: 'a': The city's ability to close recessionary revenue gaps is strong and is a function of the city's high revenue raising flexibility and long-term reserves that are available to offset the expected level of revenue volatility in a downturn.

Rating Sensitivities

Continued Pension Pressure: The 'BBB-' rating recognizes the improved pension funding framework the city recently implemented as well as continued challenges associated with stabilizing or decreasing adjusted net pension liabilities. Upward rating momentum is unlikely until annual contributions are sufficient to accomplish this stabilization, but failure to show progress according to the city's plan could put negative pressure on the rating.

Structural Balance: The Stable Outlook incorporates Fitch's expectation that the city will continue to progress toward structural budgetary balance, including progress toward actuarially sustainable pension contributions, and maintain reserves commensurate with the rating throughout the economic cycle. A reversal of this trend could lead to negative rating action.

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Current Developments

Chicago's new mayor took office earlier this year and identified budget gaps for the next three fiscal years: $838 million for fiscal 2020, $1.187 billion for fiscal 2021, and $1.157 billion for fiscal 2022. These gaps are much larger than those identified in recent years but include items that previous gap analysis did not, including rising contributions related to the pension funding ramp. The 2020 budget includes actuarial funding (albeit with a 90% funding target) for the city's police and fire pension plans. The municipal and laborers' plans are still ramping up and should reach actuarial funding (90% target) in 2022.

The administration has released a plan to address the budget gaps and anticipates achieving structural balance by fiscal 2022, assuming the city obtains approval for some new revenues included in the plan, including for a graduated real estate transfer tax (RETT) that would generate an additional $100 million annualized. The change to the RETT would require approval either by the state legislature or by voters. The city is also petitioning the state to change the tax structure that was included in the recent casino authorization legislation to make it more attractive to private sector investors. If that is not achieved and new casinos do not open, a large shortfall would result beginning with the 2021 budget plan. The city has drawn up a number of contingency plans that could be implemented if the RETT and/or the casino project is not achieved. These include additional debt refundings and, as a last resort, a new property tax.

The $4.5 billion fiscal 2020 corporate fund budget addresses the $838 million gap with a variety of structural and one-time elements. The budget includes $226 million of new fees/taxes, excluding the RETT that was originally slated to generate partial year revenue of $50 million; the city amended the budget to exclude the RETT after the state concluded its recent veto session without authorizing the change. Other gap closing measures include a mixture of expenditure reductions ($121 million), increased pension contributions from Chicago Public Schools ($60 million), personnel reductions ($40 million), improved accounts receivable enforcement ($25 million) and appropriation of unassigned general fund balance ($43 million in line with existing city policy of appropriating an amount equivalent to 1% of the budget). Additional one-time measures include $210 million from debt refunding, $43 million related to medical transportation/ambulance fees, $39 million from account sweeps and $31 million of declared tax increment (TIF) surplus.

Credit Profile

Chicago acts as the economic engine for the Midwestern region of the U.S. and offers abundant and diverse employment opportunities. The city also benefits from an extensive infrastructure network, including a vast rail system, which supports continued economic growth. The employment base is represented by all major sectors including trade, professional and business services and financial sectors, with no one sector dominating. Socioeconomic indicators are mixed as is typical for an urbanized area, with above-average per capita income and educational levels but also elevated individual poverty rates.

The city has been experiencing a significant amount of redevelopment activity. Two of the most notable projects underway are the Old Main Post Office project and the "78." The Old Main Post Office's largest tenant will be Uber, which recently signed a 10-year lease for its new 450,000-sf freight headquarters, expected to bring 2,000 new jobs over three years. The "78" is a $7 billion mixed-use development project that broke ground this past summer, with 13 million sf of new residential, commercial, and retail space planned along with a seven-acre park and a new train station. Most of these development projects are structured with local, state and some federal tax incentives, so future impact on the property tax revenues is uncertain. However, the new jobs created and increased economic activity, if realized, should benefit the city over time.

While the prior administration focused efforts on redevelopment along the Chicago river and within the city center, the new mayor is focusing redevelopment efforts in the outer neighborhoods, particularly those on the city's border, with a stated goal of reversing recent population losses and reducing income inequality.

Rating History (IDR)

Rating	Action	Outlook/ Watch	Date
BBB-	Affirmed	Stable	11/26/19
BBB-	Review - No Action	Stable	12/06/17
BBB-	Affirmed	Stable	8/30/16
BBB-	Downgraded	Negative	3/28/16
BBB+	Affirmed	Negative	7/03/15
BBB+	Downgraded	Negative[a]	5/15/15
A-	Downgraded	Negative	11/08/13
AA-	Affirmed	Negative[a]	6/26/13
AA-	Downgraded	Stable	10/28/10
AA	Downgraded	Negative	8/05/10
AA+	Revised	Negative	4/30/10
AA	Affirmed	Negative	10/02/09
AA	Upgraded	Stable	7/28/05
AA-	Affirmed	Positive	2/17/05
AA-	Affirmed	Stable	8/07/03
AA-	Upgraded	—	4/28/98
A+	Assigned	—	3/04/97

[a]Rating Watch.

Revenue Framework

Operating revenues are diverse, with the largest source state and local sales taxes. Sales taxes comprise a reduced percentage of general fund revenues since the creation of the Sales Tax Securitization Corporation (STSC) in 2017. The residual sales tax revenues, after STSC debt service, form a large part of the transfers in to the general fund. Absent the diversion to the STSC, general fund revenues would have grown by 7.9%. Other large sources include the transaction, utility, and income taxes. Equalized assessed valuation recorded a 12.5% increase for the 2018 levy year (triennial reassessment year), which allowed a decline in the tax rate that had been ticking upward over the past several years. Notably, property taxes do not fund general fund operations but are directed to other funds in support of debt service and pensions.

Growth prospects for revenue are solid. Fitch believes that natural revenue growth, without taking into account planned rate increases, will continue to exceed the rate of inflation but fall short of national GDP growth. After a long period without major revenue-raising policy action, the city has raised a variety of taxes and fees to provide funding for dramatically increased pension funding.

The city is a home-rule unit of government, and as such, enjoys the ability to raise or impose a wide variety of taxes and fees, many of which are legally unlimited.

Expenditure Framework

The city devotes 62% of the general fund budget to public safety and 30% for general government.

Fitch expects the natural pace of spending growth to be well above that of revenues, requiring careful budget management. The fastest growing expenditure item will be pension contributions as the city ramps up to actuarially based contributions (with a 90% funding target) over the next several years. The city has identified revenue sources for much of these contribution increases in the near term and intends to continue raising revenues to offset these rising costs in the out years.

Expenditure flexibility is constrained, given the large proportion of the budget devoted to public safety, which may be difficult to cut as a practical matter, and very high fixed carrying costs. The carrying costs for debt service, actuarially required pension contributions and other post-employment benefit (OPEB) actual payments accounted for a high 45% of 2018 governmental fund spending. That percentage may decline somewhat in the near term, as overall spending climbs due to ramped up pension payments that are closer to the actuarially determined contribution (ADC) but will still comprise an outsized proportion of the budget for the foreseeable future.

The city contributes to four single employer plans covering municipal employees, laborers, police and firefighters. Annual funding contributions had reflected calculations pursuant to state statute, leading to severe underfunding and further raising the actuarial contributions necessary to prefund the plans. Contribution levels have been increasing given recent policy changes devoting various new revenue streams toward contributions for each of the four plans. In 2018, the city paid over $1.2 billion in pension contributions, twice the amount paid in 2016 but still only 49% of the ADC.

Even if the city meets its target contributions for all four plans, which is expected in 2022, they will still fall short of the ADC, as the target is designed to reach an amount sufficient to provide a 90% funding ratio, rather than full prefunding. The city expects the 90% ratio to be achieved in 2055 for the police and fire plans and 2057 for the municipal and labor plans. Actuarial assumptions include a 30-year open amortization, one of several factors that is likely to produce little funding progress absent the plans consistently exceeding their 6.75% to 7.25% investment return targets (which Fitch views as unlikely). Fitch calculates that the annual cost to amortize the Fitch-adjusted net pension liabilities (NPLs) over 20 years with a 5% interest rate would equal $3.1 billion, or 1.2x the ADC, which suggests that the assets-to-liabilities ratio would likely improve under full ADC funding.

Long-Term Liability Burden

The long-term liability burden for total debt (direct and overlapping) and adjusted NPL is high, at 37% of personal income. Almost 60% of the liability relates to NPL. The city's recent

Outstanding Debt

(City Colleges of Chicago Capital Improvement Project) General Obligation Bonds	BBB-
(Emergency Telephone System) General Obligation Refunding Bonds	BBB-
(Modern Schools Across Chicago Program) General Obligation Bonds	BBB-
(Modern Schools Across Chicago Program) General Obligation Bonds (Taxable Build America Bonds)	BBB-
(Neighborhoods Alive 21 Prog) General Obligation Bonds	BBB-
(Neighborhoods Alive 21 Prog) General Obligation Variable Rate Demand Bonds	BBB-
General Obligation Bonds	BBB-
General Obligation Bonds (Taxable)	BBB-
General Obligation Direct Access Bonds	BBB-
General Obligation Library Bonds	BBB-
General Obligation Project & Refunding Bonds	BBB-
General Obligation Project & Refunding Bonds (Taxable)	BBB-
General Obligation Project (Taxable) Bonds	BBB-
General Obligation Project Bonds	BBB-
General Obligation Project Bonds (Taxable) (Build America Bonds - Direct Payment)	BBB-
General Obligation Project Bonds (Taxable) (Recovery Zone Economic Development Bonds - Direct Payment)	BBB-
General Obligation Refunding Bonds	BBB-
General Obligation Refunding Bonds (Taxable)	BBB-
General Obligation Variable Rate Demand Project & Refunding Bonds	BBB-
General Obligation bond Project (Taxable Build America Bonds-Direct Payment)	BBB-
Project & Refunding Bonds (Taxable)	BBB-

assumed increases to contributions have been incorporated into the actuarial reports for the plans. These assumption changes contributed to the NPL declining by $7.7 billion in 2017. The Municipal plan's depletion date has been eliminated and the other three plans' depletion dates have been extended. The 2018 total adjusted NPL measures $35 billion, and the ratio of assets to liabilities improved to a still very weak 23% (20% when adjusted by Fitch to reflect a standard 6% discount rate).

For the city's public safety plans, a 2016 state law requires a five-year ramp up to an actuarial contribution (90% funding target) by 2020. The city council passed a multi-year property tax increase to accommodate the resulting steep increase in contributions. For the laborers' plan, a 911 cell phone fee will support increased contributions, while the municipal employees' plan will receive revenue from a tax on water and sewer charges. Together, pension contributions for the four plans are slated to increase from approximately $1.2 billion in 2018 to $2.1 billion in 2022. The planned increases in contributions are on track, with the budgeted fiscal 2020 police and fire plan contributions at the 90% actuarial contribution target.

The state has announced plans to consolidate local government public safety pension plans across the state; this plan specifically excludes Chicago's pensions, but the city continues to work with representatives in the state legislature to be included in any statewide solution offered.

Amortization of GO, motor fuel and STSC debt is slow with about 30% scheduled for retirement in 10 years. STSC, a separate legal entity, has issued bonds to refund the city's outstanding sales tax bonds as well as some city GO debt. Fitch includes both city and STSC debt in the city's long-term liability and carrying cost calculations. The city plans several debt refundings, with upfront savings, as part of its fiscal 2020 budget gap closing plan.

Operating Performance

Reserve levels, including those stemming from prior asset sales/leases, have been stable over the last several years, standing at 26% of spending in 2018. The city relies on a variety of revenue sources to fund operations, some of which are economically sensitive. During a normal downturn, the Fitch Analytical Stress Test (FAST) model estimates revenues are at risk of a slightly elevated rate of decline, leaving the city with a fairly substantial shortfall to address. Fitch believes this would present a challenge to the city's financial operations in a downturn but expects that financial flexibility would recover as conditions improve.

Recent and ongoing extensive revenue-raising measures make it unlikely the city would rely solely on its revenue-raising authority to close such a recessionary gap. Similarly, the constrained expenditure flexibility makes it unlikely that the city could make meaningful spending cuts to address the gap. As such, Fitch believes that, while the city may take some revenue- or expenditure-side policy action to address a revenue decline, reserve levels would bear the brunt of the shortfall but would remain at levels consistent with the 'a' operating performance assessment throughout the economic cycle.

Chicago's budget management at times of economic recovery has improved markedly in recent years, although full structural balance remains a challenge even during the current economic expansion. Management has significantly progressed toward matching ongoing revenues with annual expenditures, but large projected budget gaps and reliance on one-time measures remain. Fitch considers sustainable, affordable, actuarially based pension funding a critical component of structural balance. The new mayor plans to focus additional resources on risk management with the goal of reducing settlement and judgment costs. Successful execution of the city's plan to firmly establish financially sustainable practices would be considered a positive rating factor.

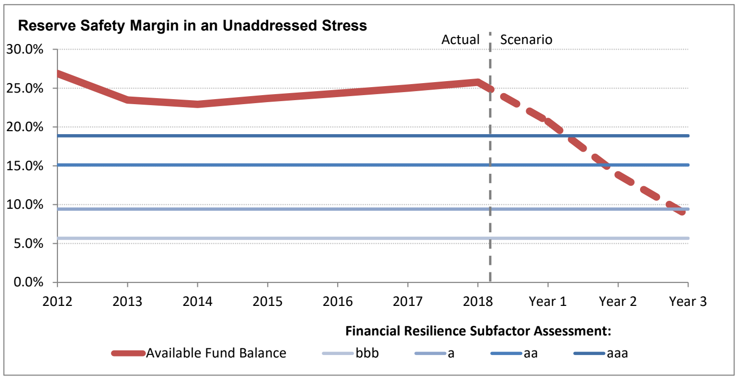
The city projects it will end fiscal 2019 with a $26.5 million net operating surplus, due mainly to revenue overperformance.

ESG Considerations

Unless otherwise disclosed in this section, the highest level of ESG credit relevance is a score of 3 — ESG issues are credit neutral or have only a minimal credit impact on the entity, either due to their nature or the way in which they are being managed by the entity. For more information on our ESG Relevance Scores, visit www.fitchratings.com/esg.

Chicago (IL)

Scenario Analysis



Analyst Interpretation of Scenario Results:
Reserves have been stable over the last several years, standing at 26% of spending in 2018. The city relies on a variety of revenue sources to fund operations, some of which are economically sensitive. During a normal economic downturn, Fitch's FAST model estimates the city's revenues are at risk of a slightly elevated rate of decline, leaving the city with a fairly substantial shortfall to address. Fitch believes this would present a challenge to the city's financial operations in a downturn, but expects that financial flexibility would recover as conditions improved. Ongoing extensive revenue-raising measures make it unlikely the city would rely solely on its revenue-raising authority to close such a recessionary revenue gap. Similarly, the constrained expenditure flexibility makes it unlikely that the city could make meaningful spending cuts to address the gap. As such, Fitch believes that while the city may take some policy action to address a recessionary revenue decline, reserves would bear the brunt of the shortfall, but would remain at levels consistent with the 'a' operating performance assessment.

Scenario Parameters:	Year 1	Year 2	Year 3
GDP Assumption (% Change)	(1.0%)	0.5%	2.0%
Expenditure Assumption (% Change)	2.0%	2.0%	2.0%
Revenue Output (% Change)	(3.8%)	(0.1%)	3.6%
Inherent Budget Flexibility		Midrange	

Revenues, Expenditures, and Fund Balance	Actuals							Scenario Output		
	2012	2013	2014	2015	2016	2017	2018	Year 1	Year 2	Year 3
Total Revenues	2,920,656	3,030,491	3,176,150	3,466,635	3,682,612	3,559,459	3,141,749	3,023,148	3,021,213	3,131,397
% Change in Revenues	-	3.8%	4.8%	9.1%	6.2%	(3.3%)	(11.7%)	(3.8%)	(0.1%)	3.6%
Total Expenditures	3,081,369	3,109,074	3,231,258	3,433,102	3,473,208	3,454,858	3,597,453	3,669,402	3,742,790	3,817,646
% Change in Expenditures	-	0.9%	3.9%	6.2%	1.2%	(0.5%)	4.1%	2.0%	2.0%	2.0%
Transfers In and Other Sources	86,617	21,018	39,700	53,851	14,998	180,227	627,542	603,852	603,466	625,474
Transfers Out and Other Uses	26,965	10,583	10,081	12,760	169,955	268,263	127,390	129,938	132,537	135,187
Net Transfers	59,652	10,435	29,619	41,091	(154,957)	(88,036)	500,152	473,914	470,929	490,287
Bond Proceeds and Other One-Time Uses	-	-	-	-	-	-	-	-	-	-
Net Operating Surplus(+)/Deficit(-) After Transfers	(101,061)	(68,148)	(25,489)	74,624	54,447	16,565	44,448	(172,340)	(250,648)	(195,962)
Net Operating Surplus(+)/Deficit(-) (% of Expend. and Transfers Out)	(3.3%)	(2.2%)	(0.8%)	2.2%	1.5%	0.4%	1.2%	(4.5%)	(6.5%)	(5.0%)
Unrestricted/Unreserved Fund Balance (General Fund)	210,417	142,269	116,780	191,404	245,852	262,416	306,864	134,524	(116,123)	(312,085)
Other Available Funds (GF + Non-GF)	624,849	590,198	626,045	624,465	640,241	668,287	652,456	652,456	652,456	652,456
Combined Available Funds Balance (GF + Other Available Funds)	835,266	732,467	742,825	815,869	886,093	930,703	959,320	786,980	536,333	340,371
Combined Available Fund Bal. (% of Expend. and Transfers Out)	26.9%	23.5%	22.9%	23.7%	24.3%	25.0%	25.8%	20.7%	13.8%	8.6%

Reserve Safety Margins	Inherent Budget Flexibility				
	Minimal	Limited	Midrange	High	Superior
Reserve Safety Margin (aaa)	60.4%	30.2%	18.9%	11.3%	7.6%
Reserve Safety Margin (aa)	45.3%	22.7%	15.1%	9.4%	5.7%
Reserve Safety Margin (a)	30.2%	15.1%	9.4%	5.7%	3.8%
Reserve Safety Margin (bbb)	11.3%	7.6%	5.7%	3.8%	2.0%

Notes: Scenario analysis represents an unaddressed stress on issuer finances. Fitch's downturn scenario assumes a -1.0% GDP decline in the first year, followed by 0.5% and 2.0% GDP growth in Years 2 and 3, respectively. Expenditures are assumed to grow at a 2.0% rate of inflation. Inherent budget flexibility is the analyst's assessment of the issuer's ability to deal with fiscal stress through tax and spending policy choices, and determines the multiples used to calculate the reserve safety margin. For further details, please see Fitch's US Tax-Supported Rating Criteria.

The ratings above were solicited and assigned or maintained at the request of the rated entity/issuer or a related third party. Any exceptions follow below.

RATING ACTION COMMENTARY

Fitch Affirms Chicago, IL's IDR at 'BBB-'; Outlook Revised to Negative

Wed 28 Oct, 2020 - 3:40 PM ET

Fitch Ratings - New York - 28 Oct 2020: Fitch Ratings has affirmed the 'BBB-' rating on the Issuer Default Rating (IDR) and outstanding general obligation (GO) bonds of the city of Chicago, Illinois.

The Rating Outlook is revised to Negative from Stable.

Fitch also affirms the 'AA-' rating and revises the Rating Outlook to Negative from Stable on the Chicago Sales Tax Securitization Corporation (STSC) outstanding sales tax securitization bonds and second lien sales tax securitization bonds. The outlook revision on the STSC bonds is based on the outlook revision on Chicago's IDR, as the bankruptcy-remote, statutorily defined nature of the STSC and a bond structure involving a true sale of the pledged sales tax revenues lead Fitch to assign a bond rating at the maximum permitted by criteria of six notches above the city's IDR.

SECURITY

The GO bonds are payable from the city's full faith and credit and its ad valorem tax, without limitation as to rate or amount.

ANALYTICAL CONCLUSION

ANALYTICAL CONCLUSION

The 'BBB-' IDR and GO rating recognize the city's role as an economic hub for the Midwestern region of the U.S., supporting solid revenue growth prospects in the post-pandemic period, as well as the city's unlimited independent legal authority to raise revenues which supports a midrange level of inherent budget flexibility. The rating also considers the city's high and growing long-term liability burden, constrained expenditure flexibility, high revenue volatility, and improving financial profile and solid reserve cushion.

The Negative Outlook reflects credit pressure associated with significant budget gaps totaling $798 million in fiscal 2020 and $1.2 billion in fiscal 2021 against a corporate fund budget of roughly $4.0 billion. The city proposes to close the budget gaps through a combination of debt refunding and restructuring targeting budget relief of up to $450 million in 2020 and $501 million in 2021, property tax and other revenue increases, and personnel reductions, among other measures. Fitch believes that the city's fiscal plan entails some degree of execution risk, and is sensitivity to the unpredictable nature of the current economic and revenue environment. The effectiveness of recurring budget measures is critical to the rating outlook and the city's prospects for returning to structural balance in the post-pandemic period. The budget proposal does not assume additional federal stimulus, relies on modest use of corporate fund reserves, and continues to fund the pension ramp-up for municipal employees and laborers and the full actuarially-based pension contribution for police and fire.

ECONOMIC RESOURCE BASE

Chicago serves as the economic and cultural center for the Midwestern region of the U.S. The city has a population of 2.7 million (equivalent to 21% of the state population) which has experienced modest declines in recent years. Socioeconomic indicators are mixed with elevated individual poverty rates but income levels that exceed the state and nation and strong educational attainment levels. Common of many densely populated urban U.S. cities Chicago has experienced a high number of coronavirus-related cases, business closures, job loss, and declining consumer activity, all of which have had significant adverse effects on revenue and pressure the city's operating budget.

KEY RATING DRIVERS

Revenue Framework: 'aa'

Fitch expects slow, steady economic expansion to lead to continued solid revenue growth, excluding the effect of new or raised taxes and fees. The city's home rule status affords it access to a wide variety of revenue-raising options, many of which are legally unlimited.

Expenditure Framework: 'bb'

Carrying costs for debt service and retiree benefits equal a substantial portion of operating resources. Public safety, which is fairly inflexible as a practical matter, comprises a majority of general fund spending, further constraining expenditure flexibility. Rising pension costs will continue to drive expenditures to grow at a much faster natural pace than revenues, likely necessitating ongoing revenue-raising measures and careful expenditure control.

Long-Term Liability Burden: 'bbb'

The long-term liability burden is high relative to the resource base at 37% of personal income, and expected to climb further even as the city phases into actuarial funding of pension contributions.

Operating Performance: 'a'

The city's ability to close recessionary revenue gaps is strong and is a function of the city's high revenue raising flexibility and long-term reserves that are available to offset the expected level of revenue volatility in a downturn.

RATING SENSITIVITIES

Factors that could, individually or collectively, lead to positive rating action/upgrade:

--Budgetary solutions to the current fiscal stress that preserve the city's 'a' level of financial resilience and sustain the city's progress toward structural budgetary balance, including actuarially-sustainable pension contributions, in the post-pandemic period.

--A quick recovery in the city's economy resulting in lower than expected near-term revenue declines and greater than expected revenue recovery in the post-pandemic period.

--Further timely and substantial federal action that offsets the likely deep economic and revenue declines the city will face over the next few months. This could take the form of significant direct aid for revenue losses or sufficient economic stimulus that supports a rapid rebound in economic activity.

--For the STSC bonds, positive rating action on the city's IDR, in conjunction with the quick stabilization of the pledged revenue stream and expectation for it to return to pre-virus growth levels in the post-pandemic period.

Factors that could, individually or collectively, lead to negative rating action/downgrade:

--The city does not present a comprehensive and plausible path to unwind non-structural fiscal measures and avoid a material erosion of reserves and financial resilience or exacerbation of an already stressed long-term liability burden.

--Sustained and deep revenue declines that compromise the city's ability to institute fiscal policies sufficient to address resultant budgetary gaps or that fundamentally weakens the ability of the resource base to meet its long-term financial obligations.

--For the STSC bonds, negative rating action on the city's IDR and/or severe declines in pledged revenues that exceed Fitch's coronavirus scenarios and that weakens our view of the dedicated tax bond structure's financial resilience.

BEST/WORST CASE RATING SCENARIO

International scale credit ratings of Sovereigns, Public Finance and Infrastructure issuers have a best-case rating upgrade scenario (defined as the 99th percentile of rating transitions, measured in a positive direction) of three notches over a three-year rating horizon; and a worst-case rating downgrade scenario (defined as the 99th percentile of rating transitions, measured in a negative direction) of three notches over three years. The complete span of best- and worst-case scenario credit ratings for all rating categories ranges from 'AAA' to 'D'. Best- and worst-case scenario credit ratings are based on historical performance. For more information about the methodology used to determine sector-specific best- and worst-case scenario credit ratings, visit [https://www.fitchratings.com/site/re/10111579].

CURRENT DEVELOPMENTS

The outbreak of coronavirus and related government containment measures worldwide has created an uncertain global environment for U.S. state and local governments and related entities. Fitch's ratings are forward-looking in nature, and Fitch will monitor the severity and duration of the budgetary impact on state and local governments and incorporate revised expectations for future performance and assessment of key risks.

While the initial phase of economic recovery has been faster than expected, GDP in the U.S. is projected to remain below its 4Q19 level until at least 4Q21. In its baseline scenario, Fitch assumes continued strong GDP growth in 3Q20 followed by a slower recovery trajectory from 4Q20 onward amid persisting social distancing behavior and restrictions, high unemployment and a further pullback in private-sector investment. Additional details, including key assumptions and implications of the baseline scenario and a downside scenario, are described in the report titled, "Fitch Ratings Coronavirus Scenarios: Baseline and Downside Cases - Update", published on Sept. 8, 2020, and "Fitch Ratings Updates Coronavirus Scenarios for U.S. States and Local Tax-Supported Issuers", published on Oct. 1, 2020 on www.fitchratings.com.

Economic implications of the pandemic and related public health measures remain significant for Chicago as is the case across many high-density U.S. cities. The pandemic and related public health measures have significantly affected the city's economy, which had posted relatively modest job growth relative to the U.S. in the years preceding the outbreak. August 2020 employment was 12.2% below the same month level in 2019 (compared to -6.9% for the U.S. non-seasonally adjusted) notwithstanding the phased reopening of the economy. The city's September unemployment rate registered a still high 13.8%, down from a peak of 18.7% in April (unemployment dipped to a low of 12.6% in January 2010 during the Great Recession). Chicago's daily coronavirus case rate has spiked to levels last seen in late April. In response, Governor Pritzker ordered a ban on indoor bar and restaurant service and a limit on group gatherings commencing October 30 until positivity rates improve. Fitch expects economic and employment data to remain volatile and difficult to forecast until an effective vaccine or treatment are widely available, reinforcing Fitch's concerns over the ability of the city to meet its near-term revenue forecasts.

Chicago Financial Update

Entering fiscal 2020 (Dec. 31 YE) Chicago's operating performance was trending upward, reflecting improved fiscal management, progress toward eliminating a structural gap in the corporate fund budget and stable reserve levels exceeding $1 billion (inclusive of balances stemming from prior assets sales/leases) or 25% of spending at fiscal YE 2019.

Chicago adopted a $4.5 billion corporate fund budget for fiscal 2020, closing an original budget gap of $838 million with a variety of one-time measures (including $210 million in refunding savings), $226 million in structural revenue enhancements, and $289 million in recurring efficiencies and expenditure reductions (including $121 million in departmental cuts and a $60 million increase in pension contributions from Chicago Public Schools). The downturn in economic activity following the outbreak of the coronavirus opened a significant revenue gap of $886 million in fiscal 2020 (about 20% of the budget) since reduced by $88 million via departmental cost savings. If not for the pandemic-related revenue loss the city estimates it would have generated a surplus of $88 million on the year. The city's revenue loss closely approximates the decline indicated by the Fitch Analytical Stress Test (FAST) model, which relates the city's historical general fund revenue volatility to GDP to support the assessment of operating performance under Fitch's criteria. FAST has been adjusted to reflect GDP parameters consistent with Fitch's global coronavirus forecast assumptions.

To close the gap the city plans to use $350 million of the $470 million in Coronavirus Relief Funds (CRF) received to cover eligible virus response costs, and the issuance of up to $1.7 billion of GO and STSC bonds to refund and restructure outstanding GO bonds for approximately $450 million in budgetary savings. The debt restructuring also targets $501 million in budget relief in fiscal 2021. The city reports a fiscal 2021 gap of $1.2 billion, based on a continuation of restrictions on economic activity until the second half of 2021 and total corporate fund revenue of $3.64 billion - essentially in line with fiscal 2020 estimates or a nearly 18% decline from the fiscal 2020 budget. The fiscal 2021 budget proposal reflects the use of $30 million in corporate fund reserves, $30 million in TIF surplus, and $30 million from fund sweeps/asset sales.

Fitch views the city's planned debt restructuring and use of other one-shots as forms of deficit financing, a fiscal tool that has been explored more frequently by U.S. state and local governments, particularly those that are lower-rated, to help mitigate the severe revenue stress associated with the coronavirus pandemic. The restructuring inherently increases the sensitivity of the rating to the timing and strength of revenue recovery in the post-pandemic period. The debt restructuring adds significant costs over time, but Fitch believes their implication for the city's near-term fiscal recovery are more neutral.

The city proposes to balance these one-time options against $562 million in structural measures to close the fiscal 2021 budget gap. Fitch views the city's focus on recurring fiscal solutions as critical to returning the budget to structural balance over the next several years. The 2021 budget proposal recommends a $94 million increase in the property tax levy and an inflationary increase to the levy beginning in 2021. Roughly $91 million in additional new revenue is proposed including an increase to the personal property lease tax and vehicle fuel tax rates. Fitch expects these revenue actions to be subject to scrutiny during budget hearings given the economic climate. That said, these proposals highlight the broad revenue flexibility of the city, which we view as an important fiscal tool and a strength of the credit.

A total of $106 million in personnel savings from the reduction of 1,921 corporate fund positions (about 7.6% of the workforce) and $89 million in non-personnel cuts have also been proposed. The city is not anticipating additional federal stimulus funds, the prospect for which varies depending on the outcome of the upcoming November elections. The budget proposal funds a $135 million increase in pension contributions, reaching $1.8 billion in total to the city's four pension funds, and includes the full actuarially-based pension contribution (albeit with a 90% funding target) for the city's police and fire pension plan for a second consecutive year. The city is expected to complete the five-year ramp up to actuarial funding of the municipal employees and laborers pension plans in fiscal 2022, which will contribute to a steep increase in pension payments to $2.25 billion.

STSC Overview

The bankruptcy-remote, statutorily defined nature of the STSC and a bond structure involving a true sale of the pledged sales tax revenues are key credit strengths that lead Fitch to assign a bond rating at the maximum permitted by criteria of six notches above the IDR of the city of Chicago. The city has sold all right, title and interest in the pledged revenues to the corporation, a limited purpose entity. The state directs all pledged sales tax revenues to the trustee for the benefit of bondholders and the residual flows to the city for any lawful purpose.

Pledged revenues include the portions of the city's home rule sales taxes that are collected by the state as well as its local share of state sales taxes. The Illinois Use Tax and Illinois Service Use Tax are both subject to appropriation by the Illinois General Assembly. These revenues, which represent about 15% of fiscal 2019 pledged revenues, are excluded from Fitch's dedicated tax analysis because their value is limited to one notch below the state's IDR (BBB-/Negative).

STSC Resilience Analysis

Fitch's current resilience assessment for the senior and subordinate structures is 'aaa' and 'aa', respectively. The resilience assessments are based on the maximum annual debt service (MADS) level permissible under the senior and subordinate ABTs, which require a minimum MADS coverage ratio of 4.0x and 1.75x, respectively. The exclusion of pledged revenues subject to state appropriation in Fitch's dedicated tax analysis yields an effective

MADS coverage ratio of 3.4x senior and 1.5x subordinate based on the minimum coverage requirement under the ABTs.

Fitch-adjusted pledged revenues could decline 71% to 1.0x senior MADS or 33% to 1.0x all-in MADS. The coverage cushions are considered in the context of the FAST model, which yields a 4.2% decline in the -1% U.S. GDP scenario, and the largest decline in Fitch-adjusted pledged revenues over the period covered by the revenue sensitivity analysis, or an 11.2% drop from fiscal 2007-2009.

To evaluate the sensitivity of the dedicated tax bond structure in the current environment, Fitch also applies a revenue stress of 34% (annualized) to the latest audited annual totals, based on Fitch's nationwide assumption of declines in retail sales, and compares that against annual debt service scheduled over the next three years. Fitch estimates senior lien coverage remaining solid at a minimum of 2.3x and all-in coverage at 1.7x (subordinate lien debt service does not commence until fiscal 2022). In both cases, the coronavirus stress results exclude the pledged revenue subject to state appropriation.

By way of comparison, the city is forecasting a nearly 12% decline in pledged revenues in fiscal 2020 based on YTD collections, followed by growth of 9% in fiscal 2021 and 8% in fiscal 2022 under its base case forecast. Fitch could revise its resilience assessments downward, which could result in negative rating action on the bonds, if the decline in pledged revenue through fiscal 2021 is equal to or greater than Fitch's coronavirus stress absent conclusive evidence of a near-term stabilization and resumption of growth.

CREDIT PROFILE

Chicago spans 228 square miles with a population of nearly 2.7 million people, is a "home rule" unit of government under Illinois law. The city has a mayor-council form of government, wherein the mayor function as the chief executive officer. The city provides a full range of municipal services including police and fire, economic, cultural and community development, and water and wastewater, among other services. Chicago also operates O'Hare and Midway international airports.

In addition to the sources of information identified in Fitch's applicable criteria specified below, this action was informed by information from Lumesis.

REFERENCES FOR SUBSTANTIALLY MATERIAL SOURCE CITED AS KEY DRIVER OF RATING

The principal sources of information used in the analysis are described in the Applicable Criteria.

ESG CONSIDERATIONS

Unless otherwise disclosed in this section, the highest level of ESG credit relevance is a score of '3'. This means ESG issues are credit-neutral or have only a minimal credit impact on the entity, either due to their nature or the way in which they are being managed by the entity. For more information on Fitch's ESG Relevance Scores, visit www.fitchratings.com/esg.

RATING ACTIONS

ENTITY/DEBT	RATING			PRIOR
Chicago Sales Tax Securitization Corporation (IL)				
• Chicago Sales Tax Securitization Corporation (IL) /Sales Tax Revenues - Second Lien/1 LT	LT	AA-	Affirmed	AA-
• Chicago Sales Tax Securitization Corporation/Sales Tax Revenues/1 LT	LT	AA-	Affirmed	AA-

VIEW ADDITIONAL RATING DETAILS

Additional information is available on www.fitchratings.com

APPLICABLE CRITERIA

U.S. Public Finance Tax-Supported Rating Criteria (pub. 27 Mar 2020) (including rating assumption sensitivity)

APPLICABLE MODELS

Numbers in parentheses accompanying applicable model(s) contain hyperlinks to criteria providing description of model(s).

FAST States & Locals - Fitch Analytical Stress Test Model, v2.4.0 (1)

ADDITIONAL DISCLOSURES

Dodd-Frank Rating Information Disclosure Form

Solicitation Status

Endorsement Policy

ENDORSEMENT STATUS

Chicago (IL)	EU Endorsed
Chicago Sales Tax Securitization Corporation (IL)	EU Endorsed

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ENDORSEMENT POLICY

Fitch's approach to ratings endorsement so that ratings produced outside the EU may be used by regulated entities within the EU for regulatory purposes, pursuant to the terms of the EU Regulation with respect to credit rating agencies, can be found on the EU Regulatory Disclosures page. The endorsement status of all International ratings is provided within the entity summary page for each rated entity and in the transaction detail pages for all structured finance transactions on the Fitch website. These disclosures are updated on a daily basis.

US Public Finance | Infrastructure and Project Finance | North America | United States

Chicago, Illinois

Full Rating Report

Ratings

Long-Term Issuer Default Rating	BBB–

Outstanding Debt

General Obligation Bonds	BBB–

Rating Outlook

Stable

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Analytical Conclusion

The 'BBB–' IDR and GO ratings and Stable Outlook recognize the city's role as an economic hub for the Midwestern region of the U.S., supporting solid revenue growth prospects, as well as the city's unlimited independent legal authority to raise revenues. The ratings also consider the city's high and growing long-term liability burden, constrained expenditure flexibility and improving financial profile. The city's reserve cushion provides solid capacity to address cyclical downturns, given expected revenue volatility.

Economic Resource Base: Chicago serves as the economic and cultural center for the Midwestern region of the U.S. The city's population totaled 2.7 million in 2016 up 0.3% from the 2010 census and accounts for 21% of the state's population. Socioeconomic indicators are mixed with elevated individual poverty rates but above average per capita income levels and strong educational attainment levels.

Key Rating Drivers

Revenue Framework: 'aa'
Fitch expects slow, steady economic recovery to lead to continued solid revenue growth, excluding the effect of new or raised taxes and fees. The city's home rule status affords it access to a wide variety of revenue-raising options, many of which are legally unlimited.

Expenditure Framework: 'bb'
Carrying costs for debt service and retiree benefits equal a substantial portion of operating resources. Public safety, which is fairly inflexible as a practical matter, comprises a majority of general fund spending, further constraining expenditure flexibility. Rising pension costs will continue to drive expenditures to grow at a much faster natural pace than revenues, likely necessitating ongoing revenue-raising measures and careful expenditure control.

Long-Term Liability Burden: 'bbb'
The long-term liability burden is high relative to the resource base at 41% of personal income, and expected to rise as the city phases into actuarial funding of pension contributions.

Operating Performance: 'a'
The city's ability to close recessionary revenue gaps is strong. This is a function of the city's strong revenue-raising flexibility and long-term reserves available to offset the expected level of revenue volatility in a downturn.

Rating Sensitivities

Continued Pension Pressure: The 'BBB-' rating recognizes the improved pension funding framework the city recently implemented as well as the continued challenges associated with stabilizing or decreasing adjusted net pension liabilities. Upward rating momentum is unlikely until annual contributions are sufficient to accomplish this stabilization, but failure to show progress according to the city's plan could put negative pressure on the rating.

Structural Balance: The Stable Outlook incorporates Fitch's expectation that the city will continue to make progress toward structural balance according to its announced plan and maintain reserves commensurate with the rating throughout the economic cycle. A reversal of this trend could lead to negative rating action.

Rating History (IDR)

Rating	Action	Outlook/ Watch	Date
BBB-	Affirmed	Stable	2/28/18
BBB-	Review - No Action	Stable	12/06/17
BBB-	Affirmed	Stable	8/30/16
BBB-	Downgraded	Negative	3/28/16
BBB+	Affirmed	Negative	7/03/15
BBB+	Downgraded	Negative[a]	5/15/15
A-	Downgraded	Negative	11/08/13
AA-	Affirmed	Negative[a]	6/26/13
AA-	Downgraded	Stable	10/28/10
AA	Downgraded	Negative	8/05/10
AA+	Revised	Negative	4/30/10
AA	Affirmed	Negative	10/02/09
AA	Upgraded	Stable	7/28/05
AA-	Affirmed	Positive	2/17/05
AA-	Affirmed	Stable	8/07/03
AA-	Upgraded		4/28/98
A+	Assigned		3/04/97

[a]Rating Watch

Related Research

Fitch Affirms Chicago, IL IDR and GO Bonds at 'BBB-'; Outlook Stable (February 2018)

Related Criteria

U.S. Public Finance Tax-Supported Rating Criteria (May 2017)

Credit Profile

Chicago acts as the economic engine for the Midwestern region of the U.S. and offers abundant and diverse employment opportunities. The city also benefits from an extensive infrastructure network, including a vast rail system, which supports continued economic growth. The employment base is represented by all major sectors including wholesale trade, professional and business services and financial sectors, with no one sector dominating. Socioeconomic indicators are mixed as is typical for an urbanized area, with above-average per capita income and educational levels but also elevated individual poverty rates.

Revenue Framework

Operating revenues are diverse, with the largest source, state and local sales tax, comprising 18% of general fund revenues. Other large sources include the transaction tax, utility tax, and income tax, which account for 13%, 12%, and 11%, respectively. Notably, property taxes do not fund general fund operations but are directed to other funds in support of debt service, pensions and a small amount of library contributions.

Growth prospects for revenue are solid. Fitch believes that natural revenue growth, without taking into account planned rate increases, will continue to exceed the rate of inflation, but fall short of national GDP. After a long period without major revenue-raising policy action, the city has raised a variety of taxes and fees to provide funding for dramatically increased pension funding.

The city is a home-rule unit of government, and as such, enjoys the ability to raise or impose a wide variety of taxes and fees, many of which are legally unlimited.

Expenditure Framework

The city devotes 63% of the general fund budget to public safety and 29% for general government.

Fitch expects the natural pace of spending growth to be well above that of revenues, requiring careful budget management. The fastest growing expenditure item will be pension contributions as the city ramps up from statutory to actuarially based contributions over the next several years. The city has identified revenue sources for much of these in the near term, and intends to continue raising revenues to offset these rising costs in the out years.

Expenditure flexibility is constrained, given the large proportion of the budget devoted to public safety, which may be difficult to cut as a practical matter, and very high fixed carrying costs. The carrying costs for debt service, actuarially required pension contributions and other post-employment benefit (OPEB) actual payments, account for 46% of governmental fund spending, or approximately 43% when taking into account enterprise fund support. That percentage may decline somewhat in the near term as overall spending rises due to ramped up pension payments that are closer to the actuarially determined contribution, but will still comprise an outsized proportion of the budget for the foreseeable future.

The city contributes to four single-employee plans covering municipal employees, laborers, police and firefighters. Annual funding contributions had reflected calculations pursuant to state statute, leading to severe underfunding and further raising the actuarial contributions necessary to prefund the plans. Contribution levels have been rising given recent policy changes that are devoting various new revenue streams toward contributions for each of the four plans. As of 2016, the city paid only $590 million in pension contributions, compared to $2.2 billion in actuarially determined contributions (ADC). Even if the city meets its target contributions for all four plans, which is expected in 2022, they will still fall short of the ADC, reaching an amount sufficient to provide a 90% funding ratio, rather than full prefunding. This ratio is expected to be achieved in 2055 for the police and fire plans and 2057 for the municipal and labor plans.

Actuarial assumptions include a 30-year open amortization, among other factors that are likely to produce little funding progress absent the plans' consistently exceeding their 7.25% to 7.5% investment return targets, which Fitch views as unlikely. Fitch calculates that the annual cost to amortize the Fitch-adjusted NPLs over 20 years with a 5% interest rate would equal $3.7 billion, or 1.7x the ADC.

Long-Term Liability Burden

The long-term liability burden for total debt (direct and overlapping) and adjusted net pension liability (NPL) is high at 41% of personal income. Sixty-three percent of the liability relates to net pension liability; Fitch leaves the NPL of three of the city's four single-employer plans unadjusted given their use of blended discount rates below Fitch's 6% target for measuring liabilities; all four plans report depletion dates. The 2016 total adjusted NPL measures $38 billion, and assets covered a scant 20% of adjusted liabilities, which had raised the real risk of plan depletion before the recent contribution increases.

For the city's public safety plans, a 2016 state law requires a five-year ramp up to an actuarial contribution by 2020. The city council passed a multiyear property tax increase to accommodate the resulting steep increase in contributions. For the laborers' plan, a 911 cell phone fee will support increased contributions, while the municipal employees' plan will receive revenue from a tax on water and sewer charges. Together, pension contributions for the four plans are slated to increase from approximately $1.2 billion in 2018 to $2.2 billion in 2022.

Amortization of GO, motor fuel and Sales Tax Securitization Corporation (STSC) debt is slow with about 30% scheduled for retirement in 10 years. STSC, a separate legal entity, has issued bonds to refund the city's outstanding sales tax bonds as well as some city GO debt. While these refundings extend maturities in some cases, the overall amortization rate is relatively unchanged.

Operating Performance

Reserve levels have stabilized over the last several years, standing at 24% of spending in fiscal 2016. For details, see Scenario Analysis, page 5.

Chicago's budget management at times of economic recovery has improved markedly in recent years, although full structural balance remains a challenge even well into the economic recovery. Management has made significant progress toward matching ongoing revenues with annual expenditures. Fitch considers sustainable, affordable, actuarially based pension funding a critical component of structural balance. Successful execution of the city's plan toward financially sustainable practices would be considered a positive rating factor over time. Remaining plan elements include the elimination of scoop-and-toss refundings by 2019, elimination of the use of current funds to pay routine legal settlements or judgments, and growth of the rainy day fund.

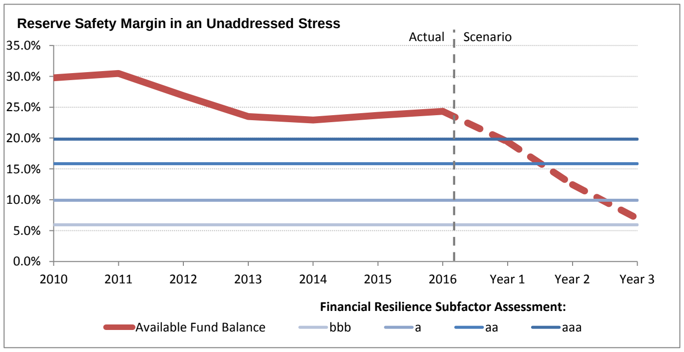
The 2017 general fund budget was balanced with a reduced but still significant amount of one-time measures, including scoop-and-toss refunding and a small amount of appropriated reserves ($53 million), but also included funding for 1,000 new police officers. The $3.6 billion general fund budget closed the previously identified budget gap of $137.6 million through a variety of recurring and one-time measures and no appropriation of general fund balance. The year ended with a $54.4 million net general fund operating surplus (1.5%).

The 2018 general fund budget is balanced with reliance upon approximately $120 million of tax increment surplus and debt service savings from refunding (including principal deferrals), $50 million in expected growth in revenues, $39 million in revenue adjustments, $20 million in spending cuts, $11 million in improved enforcement and debt collection, and $37 million (less than 1% of spending) of appropriated unassigned general fund balance. As it has in recent years, the budget includes a $5 million deposit into its rainy day fund.

Chicago (IL)

Scenario Analysis

v. 2.0 2017/03/24



Analyst Interpretation of Scenario Results:

Reserve levels have stabilized over the last several years, standing at 24% of spending in fiscal 2016. The city relies on a variety of revenue sources to fund operations, some of which are economically sensitive. During a normal downturn Fitch estimates revenues are at risk of a slightly elevated rate of decline, leaving the city with a fairly substantial shortfall to address. This would present a challenge to the city's financial operations in a downturn but financial flexibility would likely be recovered as conditions improve. Recent extensive revenue-raising measures make it unlikely the city would rely solely on its revenue-raising authority to close such a recessionary gap. Similarly, the constrained expenditure flexibility makes it unlikely that the city could make meaningful spending cuts to address the gap. As such, Fitch believes that while the city may take some revenue- or expenditure-side policy action to address a revenue decline, reserve levels would bear the brunt of the shortfall but would remain at levels consistent with the rating throughout the economic cycle.

Scenario Parameters:	Year 1	Year 2	Year 3
GDP Assumption (% Change)	(1.0%)	0.5%	2.0%
Expenditure Assumption (% Change)	2.0%	2.0%	2.0%
Revenue Output (% Change)	(4.0%)	(0.3%)	3.4%
Inherent Budget Flexibility	Midrange		

Revenues, Expenditures, and Fund Balance	Actuals							Scenario Output		
	2010	2011	2012	2013	2014	2015	2016	Year 1	Year 2	Year 3
Total Revenues	2,610,852	2,781,166	2,920,656	3,030,491	3,176,150	3,466,635	3,682,612	3,536,670	3,527,015	3,647,568
% Change in Revenues	-	6.5%	5.0%	3.8%	4.8%	9.1%	6.2%	(4.0%)	(0.3%)	3.4%
Total Expenditures	3,033,941	3,040,436	3,081,369	3,109,074	3,231,258	3,433,102	3,473,208	3,542,672	3,613,526	3,685,796
% Change in Expenditures	-	0.2%	1.3%	0.9%	3.9%	6.2%	1.2%	2.0%	2.0%	2.0%
Transfers In and Other Sources	519,002	467,744	86,617	21,018	39,700	53,851	14,998	14,404	14,364	14,855
Transfers Out and Other Uses	13,600	14,357	26,965	10,583	10,081	12,760	169,955	173,354	176,821	180,358
Net Transfers	505,402	453,387	59,652	10,435	29,619	41,091	(154,957)	(158,950)	(162,457)	(165,502)
Bond Proceeds and Other One-Time Uses	-	-	-	-	-	-	-	-	-	-
Net Operating Surplus(+)/Deficit(-) After Transfers	82,313	194,117	(101,061)	(68,148)	(25,489)	74,624	54,447	(164,952)	(248,967)	(203,730)
Net Operating Surplus(+)/Deficit(-) (% of Expend. and Transfers Out)	2.7%	6.4%	(3.3%)	(2.2%)	(0.8%)	2.2%	1.5%	(4.4%)	(6.6%)	(5.3%)
Unrestricted/Unreserved Fund Balance (General Fund)	81,151	311,478	210,417	142,269	116,780	191,404	245,852	80,900	(168,068)	(371,798)
Other Available Funds (Analyst Input)	825,917	618,895	624,849	590,198	626,045	624,465	640,241	640,241	640,241	640,241
Combined Available Funds Balance (GF + Analyst Input)	907,068	930,373	835,266	732,467	742,825	815,869	886,093	721,141	472,173	268,443
Combined Available Fund Bal. (% of Expend. and Transfers Out)	29.8%	30.5%	26.9%	23.5%	22.9%	23.7%	24.3%	19.4%	12.5%	6.9%

Reserve Safety Margins	Inherent Budget Flexibility				
	Minimal	Limited	Midrange	High	Superior
Reserve Safety Margin (aaa)	63.4%	31.7%	19.8%	11.9%	7.9%
Reserve Safety Margin (aa)	47.6%	23.8%	15.9%	9.9%	5.9%
Reserve Safety Margin (a)	31.7%	15.9%	9.9%	5.9%	4.0%
Reserve Safety Margin (bbb)	11.9%	7.9%	5.9%	4.0%	2.0%

Notes: Scenario analysis represents an unaddressed stress on issuer finances. Fitch's downturn scenario assumes a -1.0% GDP decline in the first year, followed by 0.5% and 2.0% GDP growth in Years 2 and 3, respectively. Expenditures are assumed to grow at a 2.0% rate of inflation. Inherent budget flexibility is the analyst's assessment of the issuer's ability to deal with fiscal stress through tax and spending policy choices, and determines the multiples used to calculate the reserve safety margin. For further details, please see Fitch's US Tax-Supported Rating Criteria.

The ratings above were solicited and assigned or maintained at the request of the rated entity/issuer or a related third party. Any exceptions follow below.

City of Chicago, IL

Assigned	Rating	Outlook
General Obligation Bonds Refunding Series 2019B	A	Stable
Affirmed	**Rating**	**Outlook**
General Obligation Bonds	A	Stable

Methodology:

U.S. Local Government GO Methodology

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Rating Summary: The City of Chicago's (the "City") general obligation bonds are direct and general obligations of the City and are payable from any moneys, revenues, receipts, income, assets or funds of the City legally available for such purpose and are secured by the City's full faith and credit pledge without limitation as to rate or amount. Proceeds of the Series 2019B Bonds will be combined with planned subordinate lien Sales Tax Securitization Bonds to refund outstanding general obligation motor fuel tax bonds, and Chicago Infrastructure Trust (CIT) notes. The expected $210 million savings is fully incorporated in the City's FY 2020 general fund budget.

The current administration assumed office in May 2019 with priorities related to neighborhood reinvestment, reduced violence, good governance, transparency, and maintaining sustainable City finances. KBRA believes that efficiencies and reforms enacted during this brief tenure, including personnel management, workers' compensation, department consolidations and zero-based budgeting are all positive measures toward greater social, economic and financial stability, and build on actions taken under the prior administration. Particularly noteworthy is an initiative to invest public resources and encourage private resources in long-neglected neighborhoods that are characterized by poverty, violence, and low life expectancy, where access to quality food, healthcare, and educational options are limited.

The new administration also confronted and closed a large FY 2020 budget gap, reflecting the commencement of actuarial funding for the Police and Fire pension funds and the ongoing ramp-up of the two non-uniform pension funds as actuarial funding is approached in FY 2023. Although there continues to be reliance on non-structural solutions (39%) in the adopted budget, the City has documented a path, which KBRA believes is attainable, to achieve structural balance by FY 2022. KBRA views positively the City's back-up plan to increase property taxes in the event necessary real estate transfer tax and gaming revenue approvals are not granted by the State legislature. Nonetheless, in KBRA's view, there is a critical challenge to identify long-term revenue sources to meet annual actuarial funding requirements for the City's four severely underfunded pension plans.

In July 2017, KBRA published a study **Chicago's Pension Liabilities: A Look Beyond Headlines and Ratios**. In that study, KBRA examined the City's tax and wealth base, the debt and continuing obligations of the City and overlapping jurisdictions, and the operational flexibility of these entities to make necessary adjustments to meet funding challenges. We found that despite the large cost increase, the City's wealth base would be able to absorb these obligations in an affordable manner. In addition, home rule authority confers significant operating flexibility.

City financial operations are characterized by a reliance on economically sensitive revenue sources. The adverse impact of the Great Recession resulted in liberal use of long-term reserve funds to subsidize the City's operating budget, in lieu of expenditure reduction or revenue enhancement decisions. The reserves were established from long-term asset leases and were drawn down considerably in the 2009-11 period. In 2012, the City amended its ordinance to restrict transfers to interest earnings only. At year-end 2018, the reserve funds held $652.5 million, equivalent to about 17.5% of Corporate Fund expenditures. These balances supplement the Corporate Fund balance with an unassigned reserve equal to 4.3% of Corporate Fund expenditures. In addition, the City maintains an Operating Liquidity Fund, with a balance of $30 million. These three unrestricted sources are referred to collectively as the Budget Stabilization Fund, and in combination currently are in excess of the minimum threshold of two months operating expenditures. KBRA would view significant use of long-term reserves for operations as an unfavorable action with potential negative rating implications.

Chicago's total debt, including overlapping debt is high and has been growing. Debt burden is 7.7%, and overlapping debt constitutes more than 55% of overall debt. Unlike the City, many of the overlapping entities are highly dependent on property taxes. Except for Cook County, which has home rule authority and enacted a 1% increase in sale tax rates to help fund pension obligations, the other entities are unlikely to be able to raise significant revenues from other sources to meet unfunded pension liabilities. These non-home rule units are subject to the Property Tax Extension Limitation Law (PTELL), which limits reassessment-based property levy growth to the lesser of 5% or the consumer price index.

KBRA views the City's municipal resource base as strong and diversified. Chicago is the third most populous city in the U.S., and a regionally important hub for the Midwest. It is home to more than 400 corporate headquarters, numerous Fortune 500 companies, 650 companies that have either expanded or relocated, and more than 60 post-secondary institutions. The City has an extensive mass transportation network for both intra-city and suburb-city commuter travel.

The Stable Outlook reflects the City's closure of the FY 2020 budget gap and expected progress under the three-year financial plan to achieve structural balance by FY 2022. However, challenges remain as permanent funding sources must be identified for the City's four pension funds, reliance on one-time revenues continues, debt service and pension costs represent large fixed budgetary components, and public safety labor negotiations remain to be completed.

Key Rating Strengths

- Effective management team strives to reduce reliance on non-recurring revenues, and strengthen budgeting, forecasting and operational policies.
- City's substantial tax base and deep and diverse economic base commensurate with its position as the nation's third largest city, and role of regional center for a large surrounding area.
- Ample available reserve balances supplement Corporate Fund reserves and liquidity position. City management is making progress in achieving structural balance.

Key Rating Concerns

- Need to identify significant long-term funding sources as pension funding transitions to an actuarial schedule.
- Continued reliance on economically sensitive revenue sources to fund operations.
- Slow bond amortization due to prior use of "scoop and toss" debt restructurings to augment operating resources. This practice, with respect to GO refunding bonds, ended in 2018, one year prior to target date, but refinancing by Sales Tax Securitization Corporation has historically extended the maturity of the debt refunded.

Drivers for Rating Change

Drivers	
• Lowered debt ratios, reflecting moderation of borrowing by City and overlapping jurisdictions and continued resource base expansion. • Identification and implementation of revenue sources to meet actuarial pension requirements	+
• If management does not maintain established financial and debt policies and/or act in a fiscally responsible manner. • Inability to effectively accommodate increased pension funding requirements.	-

Key Ratios	Pro Forma
Overall Direct and Indirect Debt Per Capita (Current)*	$8,671
Overall Debt as a % of Full Market Value	7.67%
Debt Amortization within 10 Years	26.9%
Days Cash on Hand	63 Days
Unassigned GF Balance as a % of GF Expenditures	4.50%
Fixed costs as a % of Total Governmental Expenditures (pro forma)**	24.6%
Per Capita Income as % of Illinois	103.8%

Note that Corporate Fund equals 99% of the General Fund

* Overlapping debt includes STSC and Cook County Sales Tax in addition to Chicago's portion of its coterminous' GO debt

**pro forma debt service, pension, and est. OPEB Contributions in FY 2020/FY 2018 Gov't Exp

Rating Determinants (RD)	
1. Management Structure and Policies	AA+
2. Debt and Additional Continuing Obligations	BBB
3. Financial Performance and Liquidity Position	A+
4. Municipal Resource Base	AA

RD 1: Management Structure and Policies

Governance and Management Structure and Policies

KBRA views the City's management structure and policies as providing a strong framework for managing debt, financial operations, and service delivery. The City's management team is highly experienced, and comes from a wide variety of disciplines, supplementing traditional management skills and adding new perspectives. Financial responsibilities are domiciled under the leadership of the Chief Financial Officer, Budget Director, and City Comptroller. City government is divided into executive and legislative branches.

The Mayor is the chief executive and is responsible for administration of various city departments, while the City Council, elected from 50 wards (municipal districts), is the legislative body. Elections are held every four years, with no term limits. Official action is taken through the passage of ordinances and resolutions. In addition to the mayor, Chicago's two other city-wide elected officials are the clerk, and treasurer, whose role is to invest City funds. The Mayor also appoints all board members of the Chicago Park District and Chicago Public Schools.

KBRA believes that the City's management team has hit the ground running since assuming office in May 2019 and has several accomplishments to point to as it undertakes priorities related to south and west Side neighborhood investment, reduction in violence, sustainable finances, good governance and investment in youth. A position of Deputy Mayor for Public Safety has been established, a Director of Violence Intervention has been hired, and greater coordination between the City and overlapping governments has been fostered. Ethics reforms have been set forth through the elimination of aldermanic prerogative, restrictions on outside employment for alderman, expanded oversight, increased fines for ethics violations and a broadened definition of lobbyists. Greater transparency results from a more transparent Budget Forecast and more open communications with stakeholders, including a budget gap that now includes all line items such as debt service, pensions, and settlements and judgments. Government efficiencies are noted through personnel management including the hiring of the first ever Chief Risk Officer tasked with implementing enterprise risk management and departmental consolidations. An outside auditor was brought in to review the Workers Compensation Program as well as a third-party administrator to reduce costs and resolve legacy claims.

City government priorities and activities are established in the budget ordinance usually adopted in November of each year, following submission by the Mayor. In addition, the City as part of its long-term financial planning, published the Annual Financial Analysis (AFA) each year since 2012, and replaced the AFA with the more detailed Budget Forecast this year. These reports evaluate the City's financial performance, including a historical analysis of the City's revenues and expenditures, a financial forecast and analyses of the City's reserves, capital program, debt and pensions. For fiscal year 2020, a structural deficit of $838.2 million was identified. which is significantly larger than the $97.9 million gap recognized in the FY 2019 budget deliberations. The increase partially reflects a change in the manner the City calculates the gap, by now including long-term liabilities like debt service and pensions. Besides aligning revenues and expenditures, and reducing reliance on non-recurring sources, the Administration has sought greater efficiency and innovative solutions to rising expenditure pressures. During fiscal year 2016, the City enacted a fiscal stabilization policy that requires an unrestricted budgetary fund balance of no less than two months operating expenses. Asset Lease and Concession Reserves, Operating Liquidity Fund and unassigned General Fund balance are the three sources of unrestricted fund balance and are collectively the Budget Stabilization Fund. These sources currently total more than $844 million.

Progress has also been made in addressing the City's significantly underfunded four single-payer defined benefit pension funds. Overcoming adverse court decisions, the prior City administration effectively worked with labor unions and Illinois General Assembly membership to identify and dedicate permanent revenue streams for its pension funds (property tax increase, water-sewer tax, 911 surcharge). KBRA views the adoption of these measures favorably, as they establish a bridge to pension fund solvency. While additional funding and identification of long-term sources is required for actuarial funding – FY 2020 budget year for Police/Fire , FY 2022 budget year for Municipal/Laborers, - based on **KBRA's analysis** the magnitude of required increases is expected to be affordable and sustainable based on the City's wealth base. The total unfunded actuarial accrued liability of the four pension funds was $29.2 billion at year-end 2018. The City has phased out OPEB health care subsidies for most retirees, following favorable court decisions.

The contributing factors to this large unfunded liability are complex and interwoven. Under the Illinois Pension Code, pension contributions were state-mandated; the City had no input into contribution levels. Both benefit levels and funding were set by State law. A static statutorily-required formula, rather than an actuarially-based formula, that does not adjust for changes in investment returns, the changing demographics of retiring employees, or benefit enhancements, including automatic cost of living adjustments, all contributed to this complexity. These funding issues were compounded by economic downturns in 2000 and 2007-2009, which sharply reduced funded ratios.

Budget Forecast

Government priorities and activities are established in a budget ordinance usually adopted in November of each year, following submission by the Mayor. By law, the City must have a balanced budget approved by December 31 of the year preceding the budget year. In addition to annual budgets, the City as part of its long-term financial planning, formerly released the AFA by each year and this year published the Budget Forecast. This report evaluates the City's financial performance, including a historical analysis of the City's revenues and expenditures, a financial forecast and analyses of the City's reserves, capital program, debt and pensions.

The Budget Forecast includes current year estimates, preliminary budget projections, and three revenue and expenditure scenarios for the subsequent two years. The Budget Forecast forms the framework for the subsequent year's budget and capital budget and guides the City's financial and operational decisions. This process is the result of an Executive Order by the Mayor. The City's fiscal year is the calendar year.

Budget Process

All departments and agencies whose budgets will become part of the City's proposed budget for the following fiscal year are considered by the Budget Director. The final budget recommendation is submitted to the City Council for consideration by the Council's Committee on the Budget and Government Operations, and the revenue package is approved by the Committee on Finance. The proposed budget may be changed by the City Council through amendments made as part of the City Council hearing and review process. The Committee on the Budget and Government Operations and then the full City Council vote on the budget and any amendments. The Council-approved budget in the form of an annual appropriation ordinance is then forwarded to the Mayor for approval. If the Mayor vetoes the approved annual appropriation ordinance, the City Council may override the veto with a two-thirds vote.

Public quarterly budget reports are released and present an overview of the City's operating revenues and expenditures as compared to budgeted amounts and explain any notable aberrations or trend in these numbers. Proposed amendments to the annual appropriation ordinance are referred to the Council's Committee on the Budget and Governmental Operations for consideration and approval at a committee hearing, followed by a full City Council vote. If approved by a majority of members, the amendment is adopted, and the appropriation ordinance is amended accordingly. Amendments to the City's annual appropriation ordinance must be made at the series level, e.g., personnel, contractual services, travel, commodities and materials. Budgeting has generally been conservative in recent years, without the need for significant intra-year adjustment, and year-end results approximating budget.

The Budget uses the budgetary basis of accounting. For budgetary purposes, encumbrances are recorded as expenditures, but are included in "assigned" fund balance for GAAP purposes. Proceeds of long-term debt and transfers in are classified as revenues. Audited Governmental Fund financial statements are reported using the current financial resources measurement focus and the modified accrual basis of accounting. The City considers revenues to be available if they are collected within 90 days of the end of the current fiscal period, apart from property tax revenue, which is recorded as deferred inflows unless taxes are received within 60 days after year-end. License and permit fees, charges for services and miscellaneous revenues are not considered to be susceptible to accrual and are recorded as revenues when received in cash.

Home Rule Status

The City is a home rule unit of government under the Illinois Constitution of 1970, which designates any municipality in the State with a population greater than 25,000 as a home rule unit. Municipalities of less than 25,000 may elect by referendum to become a home rule unit. KBRA believes this designation provides wide latitude to the City in structuring its government and municipal policies without interference from the State. It has afforded management flexibility in implementing additional taxes, most notably the home rule sales tax, but also including utilities, hotels, real estate transfers, restaurants, alcohol, tobacco products, and lease receipts. Home rule status also exempts Chicago from operating tax rate limits, the effects of the Property Tax Extension Limitation Law, although the City has adopted its own tax limitation ordinance that mirrors the state statute.

Bankruptcy Assessment

KBRA has consulted with external counsel regarding the statutory framework regarding municipal bankruptcy in the State of Illinois. KBRA understands that the City is established as a political subdivision by Illinois statute. As such an entity, it meets the definition of a municipality under Chapter 9 of the U.S. Bankruptcy Code. State law does not currently permit municipalities in the State to file for protection under the U.S. Bankruptcy Code, except in accordance with the provisions of the Local Government Financial Planning and Supervision Act (the "Act"). 50 ILCS 320/1. Under the Act, applicable only to units of local government that have a population under 25,000, a financial planning and supervision commission has the power to recommend to a unit of local government that the unit file a petition under Chapter 9 of the U.S. Bankruptcy Code and submit this recommendation to the State. 50 ILCS 320/9(b)(4). State law, however, does not currently include any provisions specifically authorizing any municipal entity other than the Illinois Power Agency to file a bankruptcy petition. Further, it is KBRA's understanding that the existing broad grant of home rule powers to home rule municipalities such as Chicago, under the Illinois Constitution and other Illinois law, are unlikely to satisfy the standard for specific authorization required to permit the City to file for protection under the U.S. Bankruptcy Code. However, it is possible that the State of Illinois may in the future permit municipalities such as the City of Chicago to file for bankruptcy relief, and a bill that would grant such authority has been introduced from time to time in the General Assembly.

RD 2: Debt and Additional Continuing Obligations

Direct and Overlapping Debt

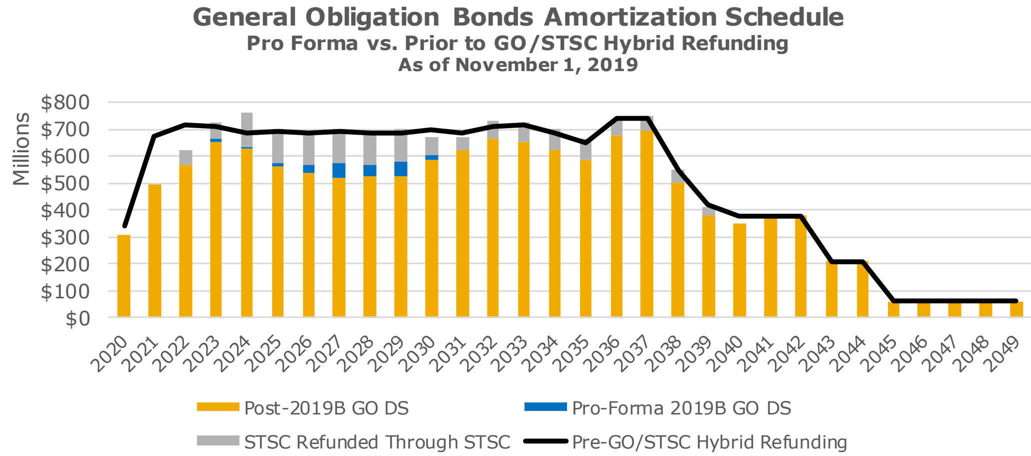
The City of Chicago and its overlapping jurisdictions (Chicago Park District, Chicago Public Schools, City Colleges of Chicago, Cook County, Cook County Forest Preserve District, and Metropolitan Water Reclamation District) have issued significant amounts of debt in recent years. KBRA views the City's overall debt per capita at $8,671 and the debt burden valuation, at 7.67% as moderately high. Direct debt represents over 47% of overall debt. General obligation debt increased substantially over the past ten years, as the City issued approximately $3.5 billion of bonds to fund its capital program, but a substantial portion has been refunded by Sales Tax Securitization Corporation issuance, which has also refinanced outstanding sales tax revenue bonds. Issuance by the Corporation currently totals $2.64 billion. Unfunded pension liabilities are also a significant obligation.

All outstanding City long-term general obligation debt is now in the form of fixed rate obligations, and there are no associated interest rate swaps (GO amortization schedule in Figure 1). The City has used its short-term Borrowing Program for working capital in anticipation of receipts of other revenue and to fund capital projects but has also used this source for non-capital expenditures such as settlements and judgments, and retroactive payment of employee salaries and wages, which are typically repaid from proceeds of later issuances of general obligation bonds or other revenue sources. The City has moved greater reliance on funding such costs on a current basis and eliminated "scoop and toss" debt restructurings in 2018, one year prior to the targeted 2019 date. In June 2019, the City reduced its $510 million Corporate Fund line of credit to $100 million in recognition of its favorable liquidity position and development of improved operational and cash flow forecasting. Approximate savings of $16 million are anticipated for the General Fund for FY 2020.

In the fourth quarter of 2017, the City established a sales tax securitization structure through a separate corporation to achieve debt service savings. This structure shifts funding for debt repayment from the property tax to the sales tax. Approximately $2.64 billion of bond issuance ensued that refinanced all $502.4 million in outstanding sales tax revenue bonds, and almost $2 billion of general obligation bonds. The most recent STSC issue sold in January 2019. In addition to the present general obligation transaction, the City plans to sell, at an undetermined date, an initial issue of second lien STSC Bonds to refinance outstanding general obligation, motor fuel tax bonds and CIT notes.

Overlapping jurisdictions, particularly Chicago Public Schools and Cook County, have pension-related challenges of their own, which may impact Chicago taxpayers. In KBRA's view, City of Chicago taxpayers, who already pay high sales taxes, will likely experience other tax increases to address the funding inadequacy of multiple layers of government. In KBRA's estimation, pension funding now represents and will persist as a significant contingent liability for both the City and its overlapping jurisdictions. All overlapping jurisdictions, apart from Cook County, are non-home rule units of government, and therefore cannot raise all these needed resources from increased property taxes because of the Property Tax Extension Limitation Law (PTELL). KBRA sees available options for non-home rule units as limited. Cook County also has large unfunded pension liabilities. While the degree of underfunding is less severe than the City's, concerns over meeting these obligations was among the reasons for the adoption of a 1% increase in the County home rule sales tax, effective January 1, 2016. Nevertheless, based on the findings of our report "**Chicago's Pension Liabilities: A Look Beyond Headlines and Ratios**", KBRA believes that funding requirements are affordable based on the City's wealth base.

Figure 1



	($ millions)
Total GO Principal Prior to Refunding	8,093
Total GO Principal Post Refunding	6,808
2019B Refunding Bonds Principal	177

Source: City of Chicago, IL General Obligation Bonds Refunding Series 2019B POS

Chicago Pension Funds

City employees participate in one of four defined-benefit pension plans: (1) the Municipal Employees' Annuity and Benefit Fund of Chicago (MEABF) – covers most civil service employees of the City, and non-teacher employees of the Chicago Public Schools; (2) Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago (LABF) – covers employees who are members of certain unions; (3) Firemen's Annuity and Benefit Fund of Chicago (FABF) – covers City's sworn firefighters and paramedics; (4) Policemen's Annuity and Benefit Fund of Chicago (PABF) – covers City's sworn police officers, captains, lieutenants, and sergeants.

Each of the four funds is at present significantly underfunded. As of December 31, 2018, the net present liability of the four funds was $29.2 billion according to actuarial valuations. The funded ratios, on an actuarial basis, range from 18.4% for the FABF to 44.7% for the LABF.

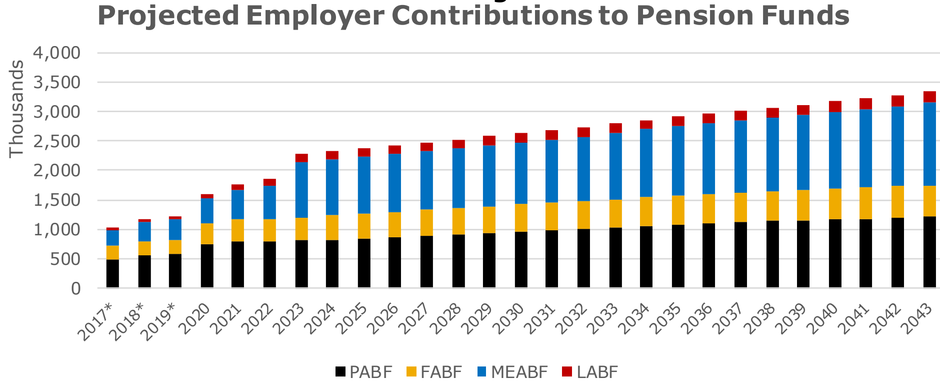
In October 2015, the City Council approved a four-year property tax increase of $543 million solely to fund increases to the Police and Fire pension funds. The increased property taxes supported a ramp-up to actuarial funding. Full actuarial funding commences in 2020, at which time police and fire pension funding requires a $281.2 million city increase over the 2019 contribution, according to the City's Budget Forecast (Figure 2 & 3). In addition, for the MEABF and LABF funds, the City will switch to actuarially required contributions for budget year 2022 (payment year 2023) ($388.7 million increase over 2021) and has dedicated revenue streams (MEABF – water/sewer usage tax; LABF – monies freed by a 911 surcharge increase) to ramp-up funding amounts over five years. Police and fire are expected to reach 90% funding by levy year 2055, and MEABF and LABF are expected to reach this threshold by levy year 2057 (payment year 2058). Prior to legislative changes enacted over the last several years, the City made contributions in an amount determined by a statutory funding formula, which required employer contributions in a multiple of the amount contributed by employees two years prior to the year in which the property tax used to generate the contribution was levied. This statutory formula did not change to allow for shifts in demographic factors, such as longer retiree lifespans, and did not recognize the effect of benefit enhancement – including automatic cost of living adjustments, and early retirement incentives which reduce contributions and increase benefit costs. Many years of non-actuarially based funding were compounded by economic downturns in 2000 and 2007-09 that sharply lowered investment returns and further reduced funded ratios. The City's workforce has declined in the past ten years, which has adversely affected contributions.

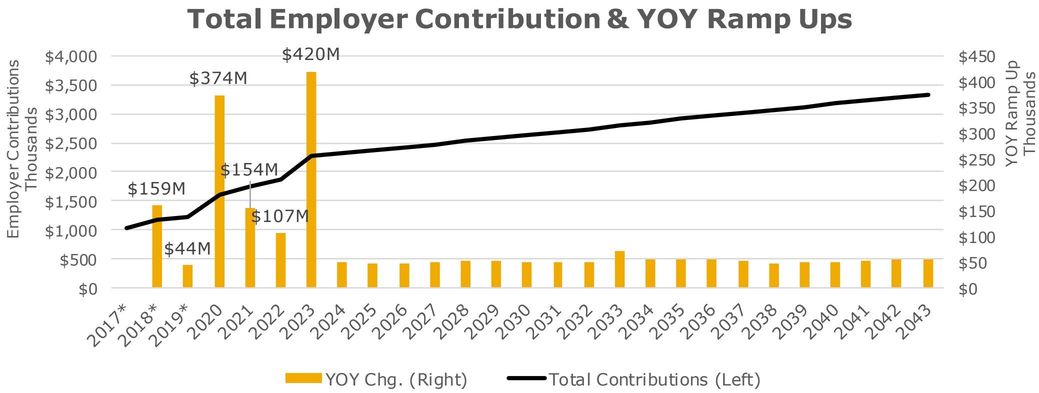
Figure 2

Dedicated Funding Sources for City of Chicago's Pension Funds		
Fund	**Funding Source**	**Statutory Funding Schedule**
PABF & FABF	$543 million property tax increase begun in 2015	Funding ramp up to ARC by 2020, 90% funded target by 2055
MEABF	Municipal water and wastewater tax implemented in 2017	Funding ramp up to ARC by 2023, 90% funded target by 2058
LABF	911 surcharge increase allowing for increased Corporate Fund contribution	Funding ramp up to ARC by 2023, 90% funded target by 2058

Source: City of Chicago

Figure 3





Source: FY 2018 Actuarial Valuation Reports published by each perspective funds
*Represents contributions expected to be made by the City during the fiscal year pursuant to the Pension Code.

Capital Program

The City's capital improvement program (CIP) is a 5-year plan of projects that encompasses general City, water and sewer, and airport infrastructure and facilities. Funding comes from general obligation bond issues, revenue bond issuance (mainly water, sewer, and aviation improvements), state and federal funding, operating revenue and tax increment financing. A total of $8.5 billion of improvements is included in the 2019-23 program, including $2.9 billion related to general City purposes. The CIP anticipates $931.5 million of bond proceeds and other revenue. Transportation projects represent approximately $1.2 billion, and include bridge, viaducts, intersections and major streets, and transit, bicycle, pedestrian programs. The CIP is not part of the operating budget cycle, but City Council approval is required for most funding sources.

RD 3: Financial Performance and Liquidity

Pro-Active Financial Management

Notwithstanding the pension and debt service funding issues that represent significant fixed costs going forward, KBRA believes that the City's management team has the wherewithal and determination to further stabilize and improve financial operations. Sustainable City finances have been set as one of the Administration's top priorities. Therefore, KBRA would expect that a structurally balanced budget would be adopted for FY 2022, and financial improvement would build on the foundation set by the prior administration. The City adopted a budget stabilization policy in fiscal 2016, that KBRA views favorably, requiring maintenance of unrestricted fund balances in excess of two months of operating expenditures and does not appropriate more than one percent of the value of the annual corporate budget from the prior year's audited unassigned fund balance in the current year's budget. The Budget Stabilization Fund includes three sources of unrestricted fund balance, which reside in the Special Revenue and Corporate Funds: (1) Asset Lease and Concession Reserves ($652.5 million) – Chicago Skyway and metered parking system; (2) Operating Liquidity Fund ($30 million) – created in 2016; (3) unassigned fund balance. The unassigned fund balance has increased from $33.8 million (1.1% of General Fund expenditures) at FYE 2013 to $161.9 million (4.3% of General Fund expenditures) at year-end 2018. Budget Stabilization Fund resources approximate 22.7% of General Fund expenditures (Figure 4).

Figure 4

City of Chicago
Balance Sheet - General Fund

FYE Dec 31 ($ 000)	2014	2015	2016	2017	2018
Assets					
Cash & Investments	103,502	56,947	97,586	173,923	336,584
Cash and Cash Equivalents	*1,102*	*2,555*	*2,856*	*3,500*	*197,712*
Investments	*102,400*	*54,392*	*94,730*	*170,423*	*138,872*
Other Receivables	209,386	225,580	237,311	226,081	250,109
Due from Other Funds & Component Units	109,514	154,104	119,312	233,028	220,143
Due from Other Governments	241,878	262,522	270,907	204,948	49,768
Other Assets	24,887	23,828	23,730	25,945	25,463
Total Assets	**689,167**	**722,981**	**748,846**	**863,925**	**882,067**
Liabilities					
Accounts Payable	185,783	219,649	191,990	214,162	224,475
Deferred Rev	2,164	8,851	1,790	1,405	603
Due to Other Funds & Component Units	276,805	167,001	129,311	185,342	163,969
Other Liabilities	83,137	112,248	144,964	172,687	157,768
Total Liabilities (excluding Deferred Inflows)	547,889	507,749	468,055	573,596	546,815
Deferred Inflows of Resources	0	0	11,209	1,968	2,925
Total Liabilities	**547,889**	**507,749**	**479,264**	**575,564**	**549,740**
Fund Balance					
Nonspendable	24,498	23,828	23,730	25,945	25,463
Assigned	65,223	98,377	92,115	106,900	145,000
Unassigned	51,557	93,027	153,737	155,516	161,864
Total Fund Balance	**141,278**	**215,232**	**269,582**	**288,361**	**332,327**

Source: City of Chicago, IL CAFR

Figure 5

City of Chicago Statement of Revenues, Expenditures and Changes in Fund Balance					
FYE Dec 31 ($ 000)	**2014**	**2015**	**2016**	**2017**	**2018**
Revenues					
Total Taxes	2,175,787	2,376,190	2,603,020	2,436,923	2,091,631
Federal/State Grants	2,335	1,845	1,869	2,514	3,444
Internal Service	305,716	345,426	342,606	347,738	270,172
Licenses and Permits	119,940	126,727	130,399	133,500	139,792
Fines	338,329	366,309	318,388	344,925	336,900
Investment Income	1,573	911	8,251	6,978	1,627
Charges for Services	141,850	126,109	192,672	189,802	193,489
Miscellaneous	90,620	123,118	85,407	97,079	104,694
General Fund Rev	**3,176,150**	**3,466,635**	**3,682,612**	**3,559,459**	**3,141,749**
YOY % Chg.	*5%*	*9%*	*6%*	*-3%*	*-12%*
Expenditures					
General Government	929,918	1,064,470	993,682	929,471	1,064,874
Public Safety	2,020,072	2,061,540	2,195,201	2,228,705	2,229,455
Public Works	195,390	199,644	195,310	197,491	206,499
Health	25,902	26,001	29,430	30,083	30,767
Culture & Recreation	0	0	482	0	0
Debt Service	10,369	8,275	20,822	19,039	10,224
Principal Retirement	*7,830*	*1,930*	*15,874*	*6,145*	*2,250*
Interest and Other Fiscal Charges	*2,539*	*6,345*	*4,948*	*12,894*	*7,974*
Other Expenditures	49,607	73,172	38,281	50,069	55,634
General Fund Expenditures	**3,231,258**	**3,433,102**	**3,473,208**	**3,454,858**	**3,597,453**
YOY % Chg.	*4%*	*6%*	*1%*	*-1%*	*4%*
General Fund Surplus (Deficit)	***-55,108***	***33,533***	***209,404***	***104,601***	***-455,704***
Transfers In	39,700	34,551	14,998	180,227	627,542
Other Sources	0	19,300	0	0	0
Transfers Out	-10,081	-12,760	-169,955	-268,263	-127,390
Net Transfers & Other	**29,619**	**41,091**	**-154,957**	**-88,036**	**500,152**
Net General Fund Surplus (Deficit)	**-25,489**	**74,624**	**54,447**	**16,565**	**44,448**
Fund Balance - Beginning	167,057	141,278	215,232	269,582	287,879
Adjustment	-290	-670	-97	2,214	-482
Fund Balance - Ending	**141,278**	**215,232**	**269,582**	**288,361**	**331,845**
YOY % Chg.	*-15%*	*52%*	*25%*	*7%*	*15%*

Source: City of Chicago, IL CAFR

Figure 6

General Fund Tax Revenues						
($000)	**2014**	**2015**	**2016**	**2017**	**2018**	**% Total**
Utility Tax	473,496	437,780	434,409	438,979	432,060	21%
Sales Tax (local)*	285,773	308,878	308,089	229,861	56,986	3%
Transportation Tax	185,076	197,877	247,100	274,999	307,084	15%
State Income Tax	278,031	336,959	413,673	388,236	392,449	19%
State Sales Tax*	334,526	356,915	366,426	270,499	0	0%
Transaction Tax	316,201	390,308	463,607	434,218	477,507	23%
Recreation Tax	193,680	227,510	246,608	253,140	279,515	13%
Other Taxes	109,004	119,963	123,108	146,991	146,030	7%
Total Revenue	**2,175,787**	**2,376,190**	**2,603,020**	**2,436,923**	**2,091,631**	**100%**

YOY % Chg.	**2014**	**2015**	**2016**	**2017**	**2018**
Utility Tax	3.6%	-7.5%	-0.8%	1.1%	-1.6%
Sales Tax (local)*	6.8%	8.1%	-0.3%	-25.4%	-75.2%
Transportation Tax	1.4%	6.9%	24.9%	11.3%	11.7%
State Income Tax	-10.0%	21.2%	22.8%	-6.1%	1.1%
State Sales Tax*	5.8%	6.7%	2.7%	-26.2%	-100.0%
Transaction Tax	9.6%	23.4%	18.8%	-6.3%	10.0%
Recreation Tax	14.5%	17.5%	8.4%	2.6%	10.4%
Other Taxes	-0.6%	10.1%	2.6%	19.4%	-0.7%

Source: City of Chicago, IL CAFR

* Portions of sales tax revenues sold to the Sales Tax Securitization Corporation in FY 2017 and FY 2018

Note that Corporate Fund is 99% of the General Fund

KBRA believes that the City's management team has made several significant financial and operational improvements. Financial reporting has been improved through the Annual Financial Analysis (AFA) and now the Budget Forecast, which consider a three-year horizon that evaluates financial performance, and forms the framework for the subsequent year's operating budget and guides financial and operational decisions. Beginning with the 2012 budget, management began the practice of aligning revenues and expenses, and phased-out use of reserves derived from concession agreements. Now only the interest earnings are used for operations. Practices prior to 2012 had largely drawn down Parking Meter balances, which originated from the long-term concession of the City's metered parking program ($1.15 billion). Significant amounts of these reserves had been used for operations, particularly in the 2009-2011 period. While the FY 2020 structural deficit was pegged at $838.2 million, considerably higher than the $97.9 million gap identified in FY 2019 budget deliberations, the large year-over-year increase reflects a more conservative approach that includes long-term liabilities like debt service and pensions. KBRA would view reduction of long-term reserves as a negative action with potential adverse rating implications.

In KBRA's view, the prior administration strived for greater efficiency and sought innovative solutions to increasing expenditure pressures. The first months of the current administration have evidenced a similar commitment. The FY 2020 budget identifies $338 million in General Fund expenditure reductions and reforms in due to zero-based budgeting, improved fiscal management, enhanced revenue collection, personnel reduction and department mergers.

Revenue and Expenditure Sources

Revenue sources are diverse, with property taxes at 18.6% of fiscal 2018 Total Governmental Fund revenues, the largest source. State and local sales taxes represent 10.0%. Utility taxes account for 9.3%, special area tax (tax increment) revenues represent 9.3%, transaction taxes represent 10.0%, while transportation and state income taxes contribute 6.7% and 5.2%, respectively. Total tax revenues represent 69.1% of Governmental Fund revenues. Federal/state grants are an additional 9.8%, while fines represent 4.7%, and internal service earnings are 4.0%. Expenditures are concentrated, with public safety (31.0%) and general government (27.4%) the largest components. City pension contributions totaled $1.24 billion in fiscal year 2018, equivalent to 15.9% of expenditures, while OPEB contributions approximated $70.6 million, or 0.9% of expenditures. Debt service comprised 12.1% of expenditures in fiscal year 2018.

Corporate Fund Operations

The City's Corporate Fund (99% of the General Fund), its general operating fund, supports an array of services and activities, including police and fire protection, emergency management, trash collection, and public health programs. Revenues are derived from various locally generated taxes, intergovernmental taxes, and non-tax revenue sources. These include local taxes, such as public utility taxes, transaction taxes, transportation taxes, recreation taxes, and business taxes. Intergovernmental taxes include sales and use taxes, the state income tax, and personal property replacement taxes. Non-tax sources include licenses and permit fees, fines, charges for services, leases and rentals, and internal service earnings – transfers to Corporate Fund for services provided to other City funds and agencies. The property tax is not used for general operations, but is instead a funding source for libraries, pensions, and debt service requirements.

Key Revenue Performance

Public utility taxes, which consist of telecommunications services, electricity, natural gas and cable television, currently constitute about 11.5% of Corporate Fund revenues. Revenues from these sources have ranged from $501 million in 2007, to $432 million in 2018. Electricity and natural gas are highly dependent upon weather conditions and price and are also affected by technological change that impacts consumer behavior and energy use. Long-standing reductions in telecommunications taxes are due to a decline in the use of landlines, as more customers choose only wireless service. Telecommunication revenues have declined from $154.5 million in fiscal 2007 to $87.4 million in fiscal 2018. Electricity tax revenues have declined modestly over that period from $197 million to an $189.4 million. During fiscal year 2008, natural gas prices were historically high, and city revenues reached $153.2 million. It has since been reduced to $128.6 million in 2018.

Transaction taxes include real property transfer tax, personal property lease transaction tax, and short-term lease of motor vehicles and comprised 12.7% of Corporate Fund revenues in FY 2018. Real property transfer taxes track the economy and real estate market and have grown significantly in recent years as the housing market strengthened and commercial real estate activity expanded. Real property transfer taxes reached $242.3 million in 2006 and declined to $61.9 million in 2009 during the height of the recession. The real estate market did not exhibit significant growth until 2012. In subsequent years there were multiple large property transfers that contributed to transfer tax revenues, including the Aon Center and Willis Tower in 2015, and the Chicago Skyway and Millennium Park Garages in 2016, and real estate transfer taxes peaked in FY 2016 at $197.1 million, followed by a 18% decline to $161.7 million in FY 2017, before recovering to $175.5 million in FY 2018.

Transportation taxes accounted totaled $307.1 million (11.7% increase) and accounted for 8.1% of Corporate Fund revenues in FY 2018, and include taxes on vehicle fuel, parking facilities and ground transportation. Revenues have grown in recent years due to changes in taxes applicable to the rideshare industry and strong growth, along with parking garage tax rate changes. Ground transportation taxes total $119.4 million in FY 2018, an almost 40% increase over the prior year, with the bulk of the gain attributable to the rideshare industry.

Intergovernmental tax revenues consist of the City's share of the Illinois state sales and use taxes, income tax, and the personal property replacement tax. The City's share of the state sales tax is supplemented by a 1.25% home rule sales tax. The total Chicago sales tax is 10.25% and had been the single largest revenue source in the Corporate Fund. The City has sold to the Sales Tax Securitization Corporation (STSC) the City's right to receive sales tax revenues collected by the State. Sales tax revenues will be used to meet debt service requirements are STSC Bonds, with residual amounts remitted by the STSC and recorded in the Corporate Fund as proceeds and transfers in.

Income tax revenues have followed an irregular pattern. Growth was recorded in pre-recession years, followed by declines in the years after 2008. From 2004 to 2007, income tax revenues grew an average of 10% per year and reached $268.8 million in 2008. Revenues declined by 25.5% to $201 million in 2009. While there was a rebound in 2010, revenues decreased again in 2011 due to continued high unemployment rates (peak of 11.3%), the decline in population reflected in the 2010 census, and a delay in state distributions. Beginning in the second half of 2011, income tax revenue performance, closely reflected improvement in the overall economy, and reached a peak of $286.5 million in FY 2015. Since then, individual income tax receipts have declined, due to more limited capital gains, and contracting corporate income tax receipts, despite recent employment and wage gains. Income tax revenue ended FY 2018 at $255.0 million

Personnel Spending

Public safety represents the largest component of Corporate Fund spending (59.9%), comprised of police services representing 70.8%, fire department 26.0%, and the Office of Emergency Management and Communications 1.2%. Corporate Fund expenditures for City services had remained relatively stable between 2007 and 2014, but in recent years expenses have increased due to investments in public safety and community service programs. Over the past ten years, the City workforce has declined from 40,108 budgeted full-time equivalents (FTEs) in 2008 to 36,596 budgeted FTEs in 2019. Despite the overall workforce reductions, the 2017 and 2018 budgets increased the number of FTEs by a total of 4.0%, mainly due to the addition of 970 sworn police officer positions, divided evenly between the two years. Personnel-related expenditures are the largest component of Corporate Fund spending. Spending on personnel approximates 80% of Corporate Fund expenditures, including healthcare expenses.

Over ninety percent of City positions are represented by unions. The City enters into collective bargaining agreements with 40 different unions. The two largest bargaining units are the Fraternal Order of Police (FOP) and the Coalition of Union Public Employees (COUPE), which represents trades positions. Other large bargaining groups are the firefighters, the American Federation of State, County, and the American Federation of State, County and Municipal Employees (AFSCME) and the Service Employees International Union. Contracts are in place with COUPE and AFSCME for the 2017-2022 period, providing for average annual wage increases of 2.1%, reduction in the City share healthcare contributions, and increased work rule flexibility for the City. Collective bargaining agreements for Police and Fire have expired and negotiations are ongoing for new contracts. The old agreements remain in effect until new agreements are signed.

Fiscal Year 2019 Projections

An approximate $26.5 million surplus is projected in the Corporate Fund for FY 2019 on a budgetary basis. Total Corporate Fund resources are forecast to grow by 1.2% over the prior year actual results and $26.0 million over budgeted levels. Transaction tax revenues (real property transfer tax, personal property lease transaction tax, and short-term lease of motor vehicles) are expected to exceed 2019 budgeted amounts by $19.4 million. This increase is driven primarily by Lease of Personal Property Tax, which is expected to end the year $26.1 million over budget at $300.3 million. Ground Transportation Tax and the Amusement Tax are expected to end 2019 approximately at budget estimates of $146.4 million and $190.5 million respectively. Beginning January 1, 2019, the Ground Transportation Tax applied to rides provided through transportation network providers increased to $0.60 per trip from $0.55. As part of the 2018 budget, the Amusement Tax was amended to close an existing loophole and better align the tax structure with the City's cultural, theatrical, and musical performance goals. Personal Property Replacement Tax ("PPRT") is anticipated to end 2019 over budget estimates by $26.6 million, totaling $158.6 million. This is due in part to increased corporate profits resulting from 2017 federal tax reform. Local non-tax revenue is anticipated to end 2019 under budget by 3.1%. This is driven by an anticipated decrease in Fines, Forfeitures and Penalties, in part due to policy changes implemented in mid-2019.

Corporate Fund expenditures are expected to end FY 2018 at about the budgeted $3.82 billion. The projection reflects higher than expected expenses in certain personnel-related categories. Personnel services is expected to end 2019 over budget by $13.8 million, driven primarily by overtime spending. Additionally, benefits expenditures are anticipated to end 2019 over budget by $8.4 million, of which $7.5 million is due to higher than anticipated costs related to medical claims for employees. This is offset by $20.6 million of anticipated savings in contractual services due to the timing of contract expenditures, lower than expected personnel-related expenditures, salary and wage savings through normal position turnover, and lower than budgeted healthcare costs due to pharmaceutical rebates, increased utilization of generic drugs and lower enrollment.

Figure 7

Proposed Budget All Funds			
($ in millions)	**2019 Budget**	**2020 Proposed**	***% Chg.***
Corporate Fund	3,815.7	4,465.2	*17.0%*
Special Revenue Funds	831.3	919.2	*10.6%*
Pension Funds	1,358.5	1,705.3	*25.5%*
Debt Service Funds	802.6	802.4	*0.0%*
Enterprise Funds	2,783.5	3,002.4	*7.9%*
Grant Funds	1,810.9	1,758.7	*-2.9%*
Total	*11,402.6*	*12,653.2*	*11.0%*
Transfers between Funds	634.1	885.7	*39.7%*
Bond Proceeds	98.1	115.0	*17.2%*
Total	*732.2*	*1,000.7*	*36.7%*
Grand Total	**10,670.4**	**11,652.5**	*9.2%*

Corporate Fund			
Resources	**2019 Budget**	**2020 Proposed**	***% Chg.***
Local Tax	1,662.7	1,839.8	*10.7%*
Proceeds and Transfers In	604.6	642.5	*6.3%*
Intergovernmental Revenue	398.2	433.2	*8.8%*
Local Non-Tax Revenue	1,074.3	1,469.7	*36.8%*
Total	*3,739.8*	*4,385.2*	*17.3%*
Net Assets Beginning of Yr	76.0	80.0	*5.3%*
Grand Total	**3,815.8**	**4,465.2**	*17.0%*
Expenditures	**2019 Budget**	**2020 Proposed**	***% Chg.***
Personnel Services	2,875.4	3,050.7	*6.1%*
Contractual Services	421.0	435.2	*3.4%*
Travel	0.9	1.0	*11.1%*
Commodities	81.4	73.5	*-9.7%*
Equipment	0.8	0.6	*-25.0%*
Specific Items and Contingencies	436.2	904.2	*107.3%*
Grand Total	**3,815.7**	**4,465.2**	*17.0%*

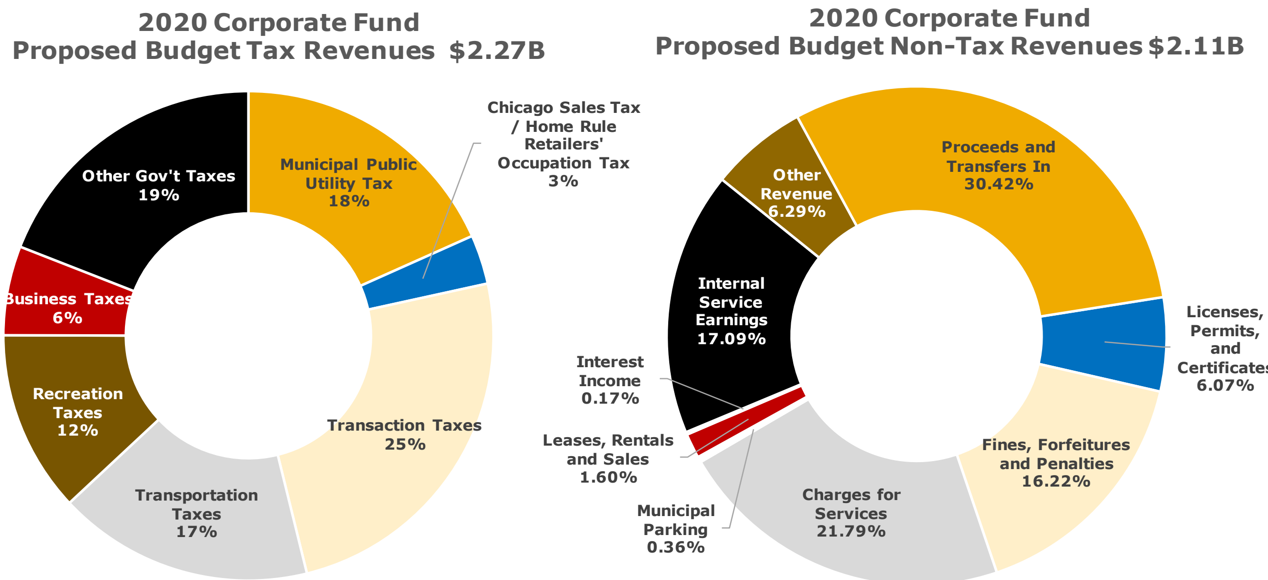
Source: City of Chicago 2020 Budget Overview

Fiscal Year 2020 Budget

The City's FY 2020 budget was adopted by the City Council on November 26, 2019 by a vote of 39 to 11. Total Corporate Fund revenue of the City is estimated at $4.47 billion, with almost 51% of revenues generated from various taxes. (Figure 8). The budget proposes Corporate Fund spending of $4.50 billion, 17% higher than the 2019 budget reflecting a sharp increase in personnel and pension costs. The budgeted personnel expense accounts for required contractual salary and prevailing rate increases for current collective bargaining agreements as well as certain estimated salary and wage growth for collective bargaining agreements currently under negotiation. In the 2020 budget, the City's Corporate Fund budgeted full-time equivalents ("FTE") will decrease by 252 FTEs. Pension costs rise substantially, as police and fire pension will be on actuarially determined funding schedules for the first time. The budget closes a preliminary $838.2 million Corporate Fund budget gap, with a combination of $537 million in savings and financial efficiencies, and approximately $352 million in new revenues. Structural measures include a ground emergency medical transportation / ambulance fee increase ($120 million), rideshare/parking meter increases ($47 million), departmental expenditure reductions ($121 million), and a $60 million Chicago Public Schools (CPS) contribution to the Municipal Employees Annuity and Benefit Fund (MEABF). Previously, the City covered all CPS-related MEABF costs. The ambulance fee increase remains to be approved by the Centers for Medicare and Medicaid (CMS), but such approval is anticipated. One-time revenues include the GO/STSC refunding ($210 million), unassigned corporate fund balance ($43 million), aging fund balance sweeps ($39 million) and tax increment financing district (TIF) surplus

The City maintains a policy of not appropriating more than 1% of the value of the annual Corporate Fund budget from the prior year's unassigned fund balance. The budget provides increased funding for settlements and judgments and funding for the City's police consent decree. The budget does not include proposed changes in the real estate transfer tax ($50 million from one-half year collection) and gaming revenues from a planned Chicago casino. The Illinois General Assembly did not approve requisite legislation in the recently concluded veto session but is expected to consider such legislation in the spring 2020 session. The City expects to include revenues associated with these sources in the FY 2021 budget. If these revenues are not authorized or there are delays in approval, the City has prepared a contingency plan to increase property taxes. Officials expect to make further progress in reaching structural balance in next year's budget and adopt a FY 2022 budget 100% structurally balanced.

Figure 8

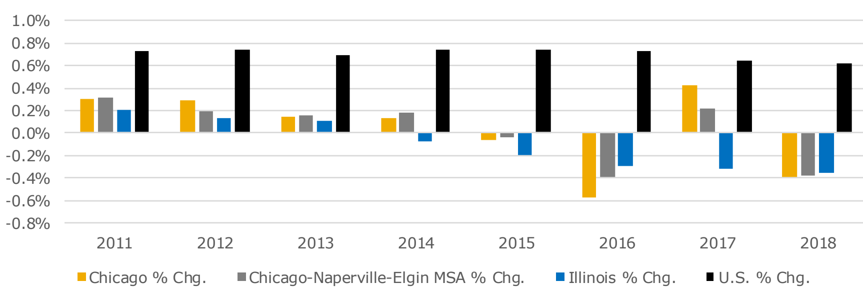


Source: City of Chicago 2020 Budget Overview

RD 4: Municipal Resource Base

The City of Chicago is the largest city in the Midwest and the third largest city in the United States by population. The City has a population of approximately 2.7 million including roughly 1.0 million households. Population growth has been relatively stable for the last seven years, with a mix of small increases and small declines (Figure 9).

Figure 9
% Change in Population



	2010	2018	8 Yr Δ
City of Chicago	2,698,831	2,705,988	0.3%
Chicago-Naperville-Elgin MSA	9,474,211	9,497,790	0.2%
State of Illinois	12,840,762	12,741,080	-0.8%
United States	309,326,085	327,167,434	5.8%

Source: U.S. Bureau of Economic Analysis

The City is the county seat for Cook County and a regional hub for commerce and culture. The Chicago-Naperville-Elgin MSA is home to over 400 corporate headquarters, including 35 in the Fortune 500, and more than 60 post-secondary education institutions. KBRA notes that Chicago exhibits characteristics of an important world business center and houses one of the world's largest and most diversified economies based on employment. The City is ranked number eight on A.T. Kearney's 2019 Global Cities Index based on business activity, human capital, information exchange, cultural experience, and political engagement. The City is the second largest financial center in the U.S. and accounts for 20% of the world's global derivatives trading and half of the exchange-based derivatives trading in North America. Chicago also ranks as a top U.S. city for direct foreign investment for the past seven years.

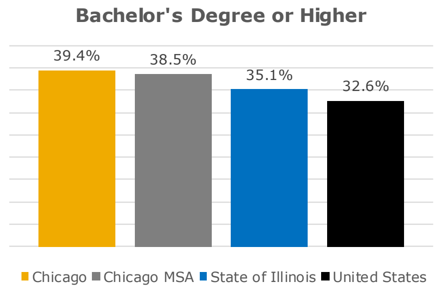
The City has a very diverse employment base that is not concentrated in any single employer. The top ten employers represent only 11.6% of total City employment and are not in cyclical industries (Figure 10).

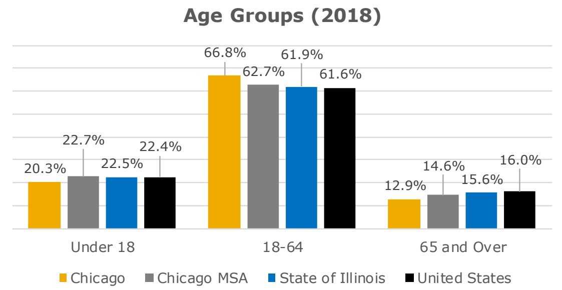
Figure 10

Top Employers of City of Chicago (2018)			
Company	**Sector**	**# of Employees**	**Employees as % of Total Employments**
Northwestern Memorial Healthcare	Health Care	19,886	1.54%
Advocate Health Care	Health Care	19,513	1.51%
University of Chicago	Higher Education	17,345	1.35%
Amita Health	Health Care	16,231	1.26%
United Continental Holdings Inc	Airline	14,582	1.13%
Amazon.com Inc.	E-Commerce	14,018	1.09%
JPMorgan Chase & Co.	Finance	13,795	1.07%
Walgreens Boots Alliance Inc.	Pharmaceutical / Retail	12,311	0.96%
Walmart Inc.	Retail	11,420	0.89%
Northwestern University	Higher Education	10,865	0.84%
Total		149,966	11.6%
Source: City of Chicago CAFR			
	Total Employments 2018	1,288,755	

The City's employment base is attractive to employers with over 39.4% of the population having a B.A. degree or higher, which is above the comparable state and national levels (Figure 11).

Figure 11





Educational Attainment			
	2010	**2018**	**Point Δ 2010 to 2018**
Chicago	33.3%	39.4%	0.06
Chicago MSA	n.a.	38.5%	n.a.
State of Illinois	30.8%	35.1%	0.04
United States	28.2%	32.6%	0.05

Age Groups			
	Under 18	**18-64**	**65 and Over**
Chicago	20.3%	66.8%	12.9%
Chicago MSA	22.7%	62.7%	14.6%
State of Illinois	22.5%	61.9%	15.6%
United States	22.4%	61.6%	16.0%

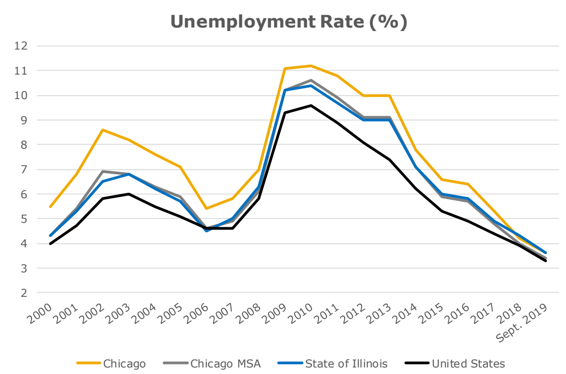
Source: U.S. Census Bureau

And despite the severity of the Great Recession, Chicago has now returned to pre-recession peaks in employment (Figure 12). KBRA expects the City's employment base, higher education facilities, and cultural attractions will continue to attract and retain talented individuals.

Figure 12

Employment (Not Seasonally Adjusted) (in thousands)								
	City of Chicago		Chicago MSA		State of Illinois		United States	
	Employment	**Δ YOY**	**Employment**	**Δ YOY**	**Employment**	**Δ YOY**	**Employment**	**Δ YOY**
2000	1,308		4,560		6,211		136,891	
2001	1,283	-2.0%	4,509	-1.1%	6,114	-1.6%	136,933	0.0%
2002	1,224	-4.6%	4,369	-3.1%	5,934	-2.9%	136,485	-0.3%
2003	1,203	-1.7%	4,344	-0.6%	5,875	-1.0%	137,736	0.9%
2004	1,198	-0.4%	4,375	0.7%	5,933	1.0%	139,252	1.1%
2005	1,195	-0.2%	4,423	1.1%	6,034	1.7%	141,730	1.8%
2006	1,222	2.3%	4,565	3.2%	6,231	3.3%	144,427	1.9%
2007	**1,243**	1.7%	**4,645**	1.8%	**6,334**	1.7%	**146,047**	1.1%
2008	1,231	-1.0%	4,600	-1.0%	6,239	-1.5%	145,362	-0.5%
2009	1,174	-4.6%	4,381	-4.8%	5,943	-4.7%	139,877	-3.8%
2010	1,206	2.7%	4,358	-0.5%	5,937	-0.1%	139,064	-0.6%
2011	1,208	0.2%	4,378	0.5%	5,948	0.2%	139,869	0.6%
2012	1,228	1.6%	4,439	1.4%	5,991	0.7%	142,469	1.9%
2013	1,236	0.7%	4,461	0.5%	5,957	-0.6%	143,929	1.0%
2014	1,258	1.8%	4,542	1.8%	6,052	1.6%	146,305	1.7%
2015	1,273	1.2%	4,602	1.3%	6,123	1.2%	148,834	1.7%
2016	1,284	0.9%	4,653	1.1%	6,170	0.8%	151,436	1.7%
2017	1,288	0.3%	4,665	0.3%	6,171	0.0%	153,337	1.3%
2018	1,289	0.0%	4,679	0.3%	6,191	0.3%	155,761	1.6%
September 2018	1,284		4,669		6,187		156,191	
September 2019	1,292	0.6%	4,706	0.8%	6,251	1.0%	158,478	1.5%
Growth 2007 Peak to September 2019	**3.7%**		**1.3%**		**-1.3%**		**8.5%**	

Source: U.S. Bureau of Labor Statistics

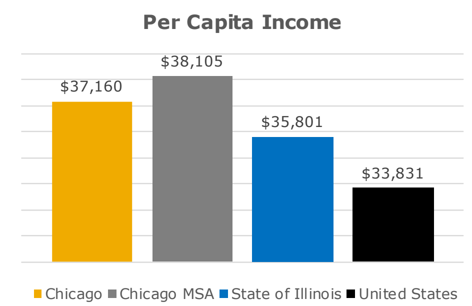


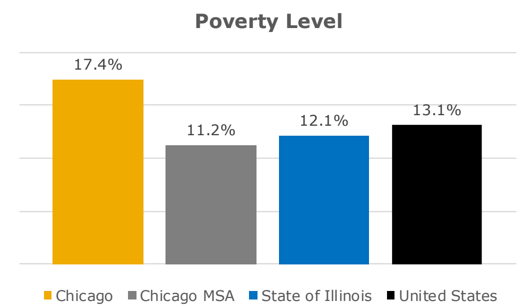
	Chicago	Chicago MSA	State of Illinois	United States
Peak	11.2	10.6	10.4	9.6
Current	3.6	3.4	3.6	3.3
Point Δ Since Peak	-7.6	-7.2	-6.8	-6.3

Source: U.S. Bureau of Labor Statistics

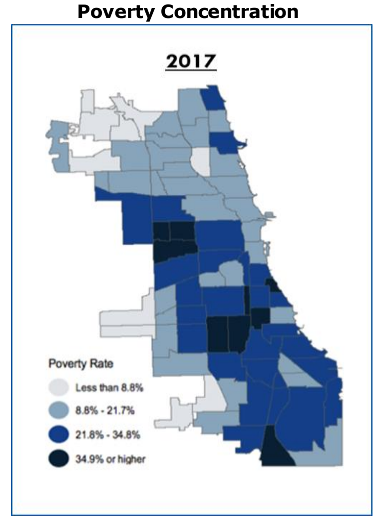
Chicago's growth in wealth levels are strong, with income per capita growing 33.6% from 2010 to 2017, which is higher than both the State and the U.S. The City, however, has a sizable amount of poverty. Poverty rate in the City increased to over 17% in 2018 from approximately 15% in 2010 (Figure 13). Chicago's neighborhoods exhibit wide disparities in poverty levels, life expectancy, and levels of violence. In recognition of the high poverty, lower life expectancy and high violence level in certain neighborhoods on the City's west and south sides, and more limited access to quality food, healthcare and educational opportunities, City officials have enacted reforms designed to catalyze change and reduce neighborhood disparities. These areas have lost a large percentage of their middle-income population over the past 20 years. The City aims to partner with the private sector in making investments in these areas that will drive improvement. Concurrently, important initiatives are underway to curb violence including weekly Chicago Police Department briefings, the creation of the position of Deputy Mayor for Public Safety and the hiring of a Director of Violence Intervention. The City is also developing a comprehensive violence reduction strategy and aligning its departments, overlapping governments and community partners.

Figure 13





Poverty Concentration



Per Capita Income

	2010	2018	Δ 2010 to 2018
Chicago	$25,650	$37,160	44.9%
Chicago MSA	n.a.	$38,105	n.a.
State of Illinois	$27,325	$35,801	31.0%
United States	$26,059	$33,831	29.8%

Source: U.S. Census Bureau

Poverty Level

	2010	2018	Point Δ 2010 to 2018
Chicago	15.3%	17.4%	0.02
Chicago MSA	n.a.	11.2%	n.a.
State of Illinois	13.8%	12.1%	0.0
United States	15.3%	13.1%	-0.02

Source: The Voorhees Center at the University of Illinois at Chicago

The figure below shows how Chicago's demographic profile compares to the largest cities in the Illinois and it is consistent with the trend observed.

Figure 14

Demographic Profiles of Largest Cities in Illinois

City	County	2018 Population	2018 Per Capita Income	2018 Poverty Rate	Unemployment Rate 2017	Unemployment Rate 2018	Unemployment Rate 2019 Sept[1]
Chicago	Cook	2,704,965	$37,160	17.4%	5.3%	4.2%	3.6%
Aurora	Du Page	206,389	$29,804	11.6%	4.8%	4.4%	3.5%
Naperville	Du Page	147,823	$55,761	3.7%	3.8%	3.0%	2.7%
Rockford	Winnebago	148,640	$23,297	22.2%	7.7%	6.8%	6.6%
Joliet	Will	149,356	$27,748	10.9%	6.1%	4.9%	3.6%
Peoria	Peoria	115,720	$32,472	20.3%	6.1%	5.7%	5.1%
Springfield	Sangamon	114,512	$32,061	18.2%	4.6%	4.5%	3.8%
Elgin	Cook	114,521	$29,682	10.1%	5.6%	5.4%	3.8%

Source: U.S Census | Bureau of Labor Statistics

[1] Preliminary

The City is a major transportation and tourism hub. **Chicago O'Hare International Airport** (A+/Stable) is the third busiest airport in the U.S. Together with the City's **Midway Airport** (A/Stable), the airport system served over 52 million passengers in 2018. In addition, Chicago set another record high number of 57 million visitors in 2018, which surpassed its goal of attracting 55 million visitors annually by 2020.

Available hotel room nights increased 18.6% in the past five years or 3.5% YOY increase from 2017. Daily room rates increased 11.1% over the last five years. Hotel tax revenue hit a record high in 2018 at over $140 million (Figure 15).

Figure 15

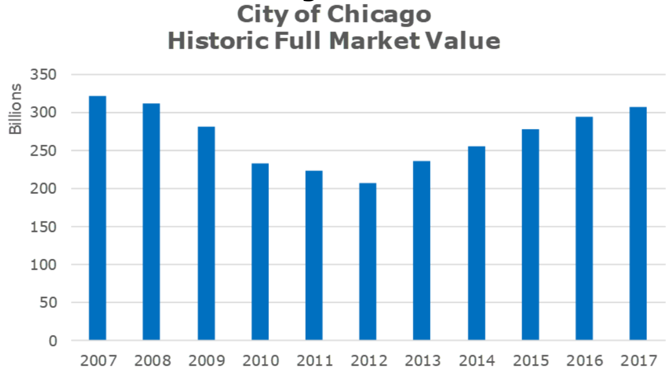
Chicago Central Business District Historic Hotel Performance and Visitor Trends						
	Available Hotel Room Nights (millions)	**Average Hotel Occupancy Rate (%)**	**Average Daily Rate ($)**	**Chicago Hotel Tax Revenue ($ millions)**	**Total Domestic Visitors (millions)**	**Total Overseas Visitors (millions)**
2013	13.19	75.3%	191.83	106.28	46.96	1.38
2014	13.53	75.7%	198.76	113.57	48.71	1.33
2015	14.06	**76.0%**	207.74	123.89	50.97	**1.62**
2016	14.60	75.1%	207.73	127.06	52.35	1.47
2017	15.12	74.7%	203.84	128.53	53.73	1.54
2018	**15.65**	75.4%	**213.09**	**140.23**	**56.09** (1)	1.58
% Change 2018 vs 2013	18.6%	0.1%	11.1%	31.9%	19.4%	14.7%

Source: Choose Chicago

(1) Preliminary | ***Bolded values indicate a record for the City***

Along with rebounding employment and income data, other signs of Chicago's rebound from the Great Recession include its residential and commercial property values. Total full market value (FMV) was hit hard by the Great Recession and experienced declines between 2008 and 2013. Since then, FMV has stabilized and is recovering steadily to $306 billion in 2017, an increase of 48% since 2012 (Figure 16).

Figure 16



Source: City of Chicago | The Civic Federation

City of Chicago, IL
General Obligation Bonds

Executive Summary

Kroll Bond Rating Agency (KBRA) has revised the City of Chicago long-term general obligation bond rating to A from BBB+ with a **Stable Outlook.** The upgrade reflects identification and dedication of permanent ramp-up revenue sources to address severely underfunded pensions, and KBRA's expectation that addressing these pension obligations long-term will prove to be affordable and sustainable for the City's wealth base. Please see our report "**Chicago's Pension Liabilities: A Look Beyond Headlines and Ratios**" for additional information. The rating revision also reflects the proactive role of City management in securing necessary legislative reforms by overcoming obstacles presented by the State administration and courts. As of December 31, 2017, the City had $9.5 billion general obligation direct debt outstanding.

Ratings			
Issuer: **City of Chicago, IL**			
Series/Bond	**Rating**	**Outlook**	**Action**
General Obligation Bonds	A	Stable	Upgrade

KBRA's long-term ratings do not apply to bonds backed by a letter of credit or liquidity facility, unless otherwise noted.

This rating is based on KBRA's **U.S. Local Government General Obligation Rating Methodology.** The rating determinants, as well as KBRA's corresponding rating determinant ratings for the general obligation bonds, are summarized below:

- Governance and Management Structure and Policies: AA+ (revised from AA)
- Municipal Resource or Economic Base: AA
- Debt and Additional Continuing Obligations: BBB
- Financial Performance and Liquidity: A+ (revised from A)

Security

The City of Chicago's ("the City") general obligation bonds are direct and general obligations of the City and are payable as to principal and interest from any moneys, revenues, receipts, income, assets or funds of the City legally available for such purpose, including, but not limited to, the proceeds of direct annual tax levied by the City in the Bond Ordinance upon all taxable property located in the City sufficient to pay principal and interest on the Bonds. The Bonds are secured by the City's full faith and credit pledge without limitation as to rate or amount.

Key Rating Strengths

- Effective management team has improved the stability of financial operations by reducing reliance on non-recurring revenues, and enhanced the City's budgeting, forecasting and operational policies.
- City's substantial tax base and deep and diverse economic base commensurate with its position as the nation's third largest city, and role of regional center for a large surrounding area.
- Ample available reserve balances supplement a growing Corporate Fund reserve and liquidity position. City management is making progress in achieving structural balance.
- Home rule authority confers significant additional operational flexibility as demonstrated by adoption of large increases in the property tax levy for police and fire pensions.

Key Rating Concerns

- Moderate to high debt levels and borrowing needs, increasing public safety expenditures, and long-term pension funding costs will all exert budgetary pressure going forward. Significant debt issuance by overlapping jurisdictions, some of which also have pension funding challenges
- Need to identify significant long-term funding sources as pension funds transition to an actuarial schedule.
- Continued reliance on economically sensitive revenue sources to fund operations.

- Slow bond amortization due to prior use of "scoop and toss" debt restructurings to augment operating resources. Administration has now ended "scoop and toss", one year prior to the 2019 target date.

Rating Summary

The rating revision to A from BBB+ for the City's general obligation bonds reflects the following factors in combination:

- Effective City management that was able to secure State legislative reforms that set in motion a path to fiscal solvency for the City's four pension plans, despite obstacles presented by gubernatorial vetoes and adverse court rulings, and a State Constitution that is highly favorable to the rights of pensioners.
- **KBRA research** which demonstrated our view that the City's wealth base has the capacity to support significant funding increases needed to achieve actuarial funding for the four pension funds
- City management's role in favorably influencing the State administration by advocating pension reforms and "hold harmless" state aid provisions that have benefitted the Chicago Board of Education
-

KBRA believes that there are still associated uncertainties, including large funding increases as actuarial funding for the Policemen's Annuity and Benefit Fund of Chicago (PABF) and Firemen's Annuity and Benefit Fund of Chicago (FABF) commences in 2020, and in 2022 for Municipal Employees' Annuity and Benefit Fund of Chicago (MEABF) and Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago (LABF). Furthermore, post ramp-up funding sources remain to be identified. In July 2017, KBRA published a study "**Chicago's Pension Liabilities: A Look Beyond Headlines and Ratios**". In that study, KBRA examined the City's tax and wealth base, the debt and continuing obligations of the City and overlapping jurisdictions, and the operational flexibility of these entities to make necessary adjustments to meet funding challenges. We found that despite the large cost increase, the City's wealth base would be able to absorb these obligations in an affordable and sustainable manner.

KBRA believes that the City of Chicago's management team continues to effect significant progress toward achieving structural balance through greater efficiencies and reduced reliance on non-recurring revenue sources. The identification of funding sources, including a large increase in the property tax levy during the ramp-up period to full actuarial funding for the City's four pension funds is also of critical importance. However, KBRA also believes there are related challenges, particularly the need to identify funding sources once the interim period ends and full actuarial funding begins in levy year 2020 for police and fire and 2022 for non-uniformed personnel. The City's pension funds are severely underfunded, and funded ratios will deteriorate before unfunded liabilities are stabilized and eventually reversed. KBRA believes that city leaders have demonstrated commitment and the capacity to tighten budget growth and to raise revenues from diverse sources. Chicago has also shown it has the ability and willingness to identify and implement new non-property tax revenue streams to support the increasing pension payment schedule. Home rule authority confers significant ongoing operational authority in establishing and collecting these revenue streams. In KBRA's view, this bodes well for Chicago's plan to control expenditure growth and gradually raise new resources – including but not exclusively property taxes – to meet its growing pension payments.

Nevertheless, Chicago's total debt, including overlapping debt is high and has been growing. Debt burden is 8.9%, and overlapping debt constitutes more than 55% of overall debt. Unlike the city, many of the overlapping entities are highly dependent on property taxes. Except for Cook County, which has home rule authority and enacted a 1% increase in sale tax rates to help fund pension obligations, the other entities are unlikely to be able to raise significant revenues from other sources. These non-home rule units are subject to the Property Tax Extension Limitation Law (PTELL), which limits reassessment-based property levy growth to the lesser of 5% or the consumer price index. This adds greater importance to the city's plan to continue to diversify its sources of incremental revenues. All of the City's general obligation debt is in fixed rate obligations. Debt and continuing obligations loom large in the overall rating assignment. If not for debt and pension credit concerns, the City's general obligation rating would be higher.

Notwithstanding the pension issues, KBRA believes that the City's management team has made a number of significant financial and operational improvements. Financial reporting has been improved through the Annual Financial Analysis (AFA), a three-year forecast, which evaluates financial performance, forms the framework for the subsequent year's operating budget and capital budget, and guides financial and operational decisions. The city's management has made a practice of aligning revenues and expenses, and phased-out use of reserves to balance operations.

The Service Concession and Reserve Fund, a long-term reserve established by ordinance totaled $620 million at year-end 2017. Only the interest earnings are used for operations. The prior administration had largely drawn down balances, which originated from the long-term lease of the Chicago Skyway ($1.8 billion) and the long-term concession of the City's metered parking program ($1.15 billion).

In KBRA's view, management has strived for greater efficiency, and sought innovative solutions to increasing expenditure pressures. Notable instances include a competitive bidding program for recycling services, a re-worked waste collection system, a process to evaluate vacant positions, implementation of an employee wellness program, and workers' compensation reforms. Worker's compensation reforms, which contributed to savings, include a reassessment of the medical billing review process, increased investigations to prevent fraud, implementation of return-to-work programs for injured employees, and more active case management.

KBRA views the City's municipal resource base as strong and diversified. Chicago is the third most populous city in the U.S., and a regionally important hub for the Midwest. It is home to more than 400 corporate headquarters, numerous Fortune 500 companies, 650 companies that have either expanded or relocated, and in excess of 60 post-secondary institutions. Although the City experienced significant employment losses during the Great Recession, recovery continues. The employment base is well diversified across industry sectors; with no one sector representing a disproportionate share of total employment. Chicago is also a significant convention and tourist destination. Cultural institutions flourish, with 35 museums and 200 theater companies. Total visitors exceeded 55 million in 2017, a 2.5% increase over 2016, which represents a goal that was attained two years early. The City has a large park system, and extensive mass transportation network for both intra-city and suburb-city commuter travel.

Population had declined somewhat through 2010, but appears to have stabilized, with modest increases reported in recent years. City unemployment peaked in 2010 at 11.7%, which was well above pre-recession levels but consistent with State and national trends. Preliminary figures for November 2017 show unemployment at 5.3%, a reduction from the 2016 annual unemployment rate of 6.5%.

City financial operations are characterized by a reliance on economically sensitive revenue sources. The adverse impact of Great Recession resulted in liberal use of long-term reserve funds to subsidize the City's operating budget, in lieu of expenditure reduction or revenue enhancement decisions. The reserves were established from long-term asset leases, and were drawn down considerably in the 2009-11 period.

Beginning in 2011, progress toward structural balance began. In 2012, the City amended its ordinance to restrict transfers to interest earnings only. At year-end 2017, the reserve funds held $620 million, equivalent to about 17.9% of Corporate Fund expenditures. These balances supplement Corporate Fund balance with an unassigned reserve equal to 4.4% of Corporate Fund expenditures. In addition, the City maintains an Operating Liquidity Fund, with a balance of $10 million, and plans to add an additional $5 million in both FY 2017 and FY 2018. These three unrestricted sources are referred to collectively as the Budget Stabilization Fund, and in combination currently are in excess of the minimum threshold of two months operating expenditures. In KBRA's opinion, since the City continues to rely on economically vulnerable sources, which may result in the erosion of reserves in the absence of difficult revenue enhancement or expenditure reduction decisions. KBRA would view significant use of long-term reserves for operations as an unfavorable action with potential negative rating implications.

Outlook:
The Stable Outlook reflects the City's identification and dedication of permanent revenue sources to address its severely underfunded pensions. In KBRA's opinion, this is not a panacea, as additional revenue sources will be required once the ramp-up is concluded and the pension funds are on an actuarial schedule. This represents a longer term financial risk that will have to be addressed in the future, and require critical decision-making. KBRA will continue to monitor progress in identifying options. Nevertheless, KBRA views the administration's recent actions as establishing a roadmap for solvency, and based on **KBRA's July 2017 study**, we are comfortable that there are sustainable and affordable options. The stable outlook also reflects an improving local economy, significant progress in aligning revenues and expenditures and reducing the structural budget deficit, and budget stabilization policies that ensure adequate liquidity.

In KBRA's view, the following factors may contribute to a rating upgrade:

- Sustained economic recovery that includes continued tax base growth and improved major revenue source performance.
- Attainment and maintenance of structurally balanced operations.
- Lowered debt ratios, reflecting moderation of borrowing by City and overlapping jurisdictions and continued resource base expansion.
- Identification and implementation of revenue sources to meet actuarial requirements

In KBRA's view, the following factors may contribute to a rating downgrade:

- Disruption in forward progress with respect to financial operations requiring the City to again resort to use of non-recurring sources, including established reserves.
- A change in posture from the current administration or a new administration that does not maintain established debt and financial policies and/or act in a fiscally responsible manner.
- Inability to effectively accommodate increased pension funding requirements.
- Unanticipated large capital borrowing by City and/or overlapping jurisdictions that sharply increases debt levels.

Key Rating Determinants

Rating Determinant 1: Governance and Management Structure and Policies

Governance and Management Structure and Policies
KBRA views the City's management structure and policies as providing a strong framework for managing debt, financial operations, and service delivery. The City's management team is highly experienced, and comes from a wide variety of disciplines, supplementing traditional management skills and adding new perspectives. Financial responsibilities are domiciled under the leadership of the Chief Financial Officer, Budget Director, and City Comptroller. City government is divided into executive and legislative branches.

The Mayor is the chief executive and is responsible for administration of various city departments, while the City Council, elected from 50 wards (municipal districts), is the legislative body. Elections are held every four years, with no term limits. Official action is taken through the passage of ordinances and resolutions. In addition to the mayor, Chicago's two other city-wide elected officials are the clerk, and treasurer, whose role is to invest City funds. The Mayor also appoints all board members of the Chicago Park District and Chicago Public Schools.

KBRA believes that the City of Chicago's management team has made significant progress toward achieving structural balance through greater efficiencies and reduced reliance on non-recurring sources. A commitment to raising revenues and controlling expenses has been demonstrated. City government priorities and activities are established in the budget ordinance usually adopted in November of each year, following submission by the Mayor. In addition, the City as part of its long-term financial planning, publishes the Annual Financial Analysis (AFA) by July 31 of each year. This report evaluates the City's financial performance, including a historical analysis of the City's revenues and expenditures, a financial forecast and analyses of the City's reserves, capital program, debt and pensions. For fiscal year 2018, the AFA identified a structural deficit of $114.2 million, which while large, is significantly smaller than the $635.7 million identified 2012 budget gap. Besides aligning revenues and expenditures, and reducing reliance on non-recurring sources, the Administration has sought greater efficiency and innovative solutions to rising expenditure pressures. During fiscal year 2016, the City enacted a fiscal stabilization policy that requires an unrestricted budgetary fund balance of no less than two months operating expenses. Asset Lease and Concession Reserves, Operating Liquidity Fund and unassigned General Fund balance are the three sources of unrestricted fund balance and are referred to collectively as Fund Stabilization. These sources currently total more than $780 million.

Favorable progress has also been made in addressing the City's significantly underfunded four single-payer defined benefit pension funds. Overcoming adverse court decisions, City officials effectively worked with labor unions and Illinois General Assembly membership to identify and dedicate permanent revenue streams for its pension funds (property tax increase, water-sewer tax, 911 surcharge). KBRA views the adoption of these measures favorably, as they establish a roadmap to pension fund solvency. While additional funding will be required once an actuarial funding schedule begins - 2022 for Municipal/Laborers, and 2020 for Police/Fire, based on KBRA's analysis the magnitude of required increases are expected to be affordable and sustainable based on the city's wealth base. The total unfunded actuarial accrued liability of the four pension funds was $35.8 billion at year-end 2016.

The contributing factors to this large unfunded liability are complex and interwoven. Under the Illinois Pension Code, pension contributions were state-mandated; the City had no input into contribution levels. Both benefit levels and funding were set by State law. A static statutorily-required formula, rather than an actuarially-based formula, that does not adjust for changes in investment returns, the changing demographics of retiring employees, or benefit enhancements, including automatic cost of living adjustments, all contributed to this complexity. These funding issues were compounded by economic downturns in 2000 and 2007-2009, which sharply reduced funded ratios.

The City has phased out health care subsidies for most retirees, following favorable court decisions. The estimated savings from the phase-out, which became effective December 31, 2016 is approximately $90 million, and will likely grow in subsequent years given healthcare premium inflation.

Annual Financial Analysis

Government priorities and activities are established in a budget ordinance usually adopted in November of each year, following submission by the Mayor. By law, the City must have a balanced budget approved by December 31 of the year preceding the budget year. In addition to annual budgets, the City as part of its long-term financial planning, releases the Annual Financial Analysis (AFA) by July 31 of each year. This report evaluates the City's financial performance, including a historical analysis of the City's revenues and expenditures, a financial forecast and analyses of the City's reserves, capital program, debt and pensions.

The AFA includes current year estimates, preliminary budget projections, and three revenue and expenditure scenarios for the subsequent two years. The AFA forms the framework for the subsequent year's budget and capital budget and guides the City's financial and operational decisions. It is developed by the Budget Director, with input from the Mayor's Economic, Budgetary, and Business Development Council, the Deputy Mayor, the Chief Financial Officer, the City Comptroller; City departments, and elected officials. This process is the result of an Executive Order by the Mayor in 2011, soon after assuming office. The City's fiscal year is the calendar year.

Budget Process

All departments and agencies whose budgets will become part of the City's proposed budget for the following fiscal year are considered by the Budget Director. The final budget recommendation is submitted to the City Council for consideration by the Council's Committee on the Budget and Government Operations. The proposed budget may be changed by the City Council through amendments made as part of the City Council hearing and review process. The Committee on the Budget and Government Operations and then the full City Council vote on the budget and any amendments. The Council-approved budget in the form of an annual appropriation ordinance is then forwarded to the Mayor for approval. If the Mayor vetoes the approved annual appropriation ordinance, the City Council may override the veto with a two-thirds vote.

Public quarterly budget reports are released and present an overview of the City's operating revenues and expenditures as compared to budgeted amounts and explain any notable aberrations or trend in these numbers. Proposed amendments to the annual appropriation ordinance are referred to the Council's Committee on the Budget and Governmental Operations for consideration and approval at a committee hearing, followed by a full City Council vote. If approved by a majority of members, the amendment is adopted, and the appropriation ordinance is amended accordingly. Amendments to the City's annual appropriation ordinance must be made at the series level, e.g., personnel, contractual services, travel, commodities and materials. Budgeting has generally been conservative in recent years, without the need for significant intra-year adjustment, and year-end results approximating budget.

The Budget uses the budgetary basis of accounting. For budgetary purposes, encumbrances are recorded as expenditures, but are included in "assigned" fund balance for GAAP purposes. Proceeds of long term debt and transfers in are classified as revenues. Audited Governmental Fund financial statements are reported using the current financial resources measurement focus and the modified accrual basis of accounting. The City considers revenues to be available if they are collected within 90 days of the end of the current fiscal period, with the exception of property tax revenue, which is recorded as deferred inflows unless taxes are received within 60 days subsequent to year-end. License and permit fees, charges for services and miscellaneous revenues are not considered to be susceptible to accrual and are recorded as revenues when received in cash.

Focus on Efficiency

KBRA also believes that management has strived for greater efficiency and sought innovative solutions to rising expenditures pressures. This is evident in waste collection and recycling programs. In 2011, the City initiated a competitive bidding process for the provision of recycling services. The result was that certain areas of the city could be better served by private companies, while city crews were more effective in other areas. Nevertheless, the total cost of city-wide recycling was significantly below what would have been achieved without the competition. The City has also changed its method of waste collection from a ward-based system to one based on main thoroughfares and natural boundaries with savings of approximately $18 million annually.

The City has also undertaken a reorganization and consolidation of City department office space leading to a reduction in leased property space. A concurrent benefit is the grouping of similar functions together, and the achievement of greater coordination. To reduce energy costs, the City has installed more energy-efficient LED traffic and street lights, and increased use of technology and monitoring to more effectively analyze trends and decisions on energy purchasing. To counter rising fuel prices, the City acted to reduce its vehicle fleet and reduce fuel usage. It ended its shared lease program, and contracted with Zipcar for short-term vehicles, and started to use Zipcar reservation technology to achieve more efficient use of City pool vehicles. Currently, the City utilizes more than 2,200 electric, hybrid, and alternative fuel vehicles, including police cars, trucks for street, electrical work, and tree trimming. In work-force matters, the City has similarly sought savings. A process to evaluate vacant positions to see if they can be eliminated has resulted in the elimination of more than 2,000 vacancies. The City has reduced the use of outside law firms, increased reliance on in-house resources, and engaged Chicago law firms to handle certain matters on a pro-bono basis. To contain employee and dependent health care costs, the City implemented a wellness program. The City has also enacted sharp reductions in retiree health care costs, and identified workers' compensation reforms to reduce costs, including a reassessment of the medical billing review, and increased fraud investigations.

Home Rule Status

The City is a home rule unit of government under the Illinois Constitution of 1970, which designates any municipality in the State with a population greater than 25,000 as a home rule unit. Municipalities of less than 25,000 may elect by referendum to become a home rule unit. KBRA believes this designation provides wide latitude to the City in structuring its government and municipal policies without interference from the State. It has afforded management flexibility in implementing additional taxes, most notably the home rule sales tax, but also including utilities, hotels, real estate transfers, restaurants, alcohol, tobacco products, and lease receipts. Home rule status also exempts Chicago from operating tax rate limits, the effects of the Property Tax Extension Limitation Law, although the City has adopted its own tax limitation ordinance that mirrors the state statute.

Based on the foregoing and in recognition of management's strong advocacy role in securing legislative changes for both the City and the Chicago Board of Education, and enactment of a sales tax securitization structure, KBRA has revised the rating determinant rating for Governance and Management Structure and Policies to AA+ from AA.

Bankruptcy Assessment

KBRA has consulted with external counsel regarding the statutory framework regarding municipal bankruptcy in the State of Illinois. KBRA understands that the City is established as a political subdivision by Illinois statute. As such an entity, it meets the definition of a municipality under Chapter 9 of the U.S. Bankruptcy Code. State law does not currently permit municipalities in the State to file for protection under the U.S. Bankruptcy Code, except in accordance with the provisions of the Local Government Financial Planning and Supervision Act (the "Act"). 50 ILCS 320/1. Under the Act, applicable only to units of local government that have a population under 25,000, a financial planning and supervision commission has the power to recommend to a unit of local government that the unit file a petition under Chapter 9 of the U.S. Bankruptcy Code and submit this recommendation to the State. 50 ILCS 320/9(b)(4). State law, however, does not currently include any provisions specifically authorizing any municipal entity other than the Illinois Power Agency to file a bankruptcy petition. Further, it is KBRA's understanding that the existing broad grant of home rule powers to home rule municipalities such as Chicago, under the Illinois Constitution and other Illinois law, are unlikely to satisfy the standard for specific authorization required to permit the City to file for protection under the U.S. Bankruptcy Code. However, it is possible that the State of Illinois may in the future permit municipalities such as the City of Chicago to file for bankruptcy relief, and a bill that would grant such authority has been introduced from time to time in the General Assembly.

Rating Determinant 2: Municipal Resource Base

Chicago is the largest city in the Midwest and the third largest city in the United States by population. The City has a population of over 2.7 million including roughly 1.0 million households. Population has been relatively stable for the last six years, with a mix of small increases and small declines.

The City is the county seat for Cook County and a regional hub for commerce and culture. The Chicago-Joliet-Naperville MSA is home to over 400 corporate headquarters, including 34 in the Fortune 500, and more than 60 post-secondary education institutions. KBRA notes that Chicago exhibits characteristics of an important world business center and houses one of the world's largest and most diversified economies. The City is ranked number seven on A.T. Kearney's Global Cities Index based on business activity, human capital, information exchange, cultural experience, and political engagement. The City is the second largest financial center in the U.S. and accounts for 17% of the world's global derivatives trading and half of the exchange-based derivatives trading in North America. Tourism is a notable driver of the City's economy and has been steadily increasing over the past few years. The City reached a record high of over 55 million visitors in 2017, which represented a YOY increase of almost 3% and almost 20% increase over 2012. Demand for hotel rooms continued to trend upward despite increases in average daily room rates, both of which contributed to the generation of $130 million in hotel tax revenue for the City in 2017.

The City has a very diverse employment base that is not concentrated in any single sector or employer. The top ten employers represent only 10.5% of total city employment and are not in cyclical industries (See

Figure 1). The City's employment base is attractive to employers with over 38% of the population having a B.A. degree or higher which is above the comparable state and national levels. And despite the severity of the Great Recession, Chicago has now returned to pre-recession peaks in employment (See Figure 2). Unemployment rate continues to improve. As of November 2017, the City's unemployment rate was 5.3%, higher than both the County and nation, at 5.0% and 4.1% respectively. KBRA expects the City's existing employment base, higher education facilities, and cultural attractions will continue to attract and retain a highly skilled workforce.

FIGURE 1

Top Employers of City of Chicago

Company	Sector	# of Employees	Employees as % of Total Employments
Advocate Health Care	Health Care	18,930	1.5%
University of Chicago	Higher Education	16,374	1.3%
Northwestern Memorial Healthcare	Health Care	15,747	1.2%
JPMorgan Chase & Co.	Finance	15,229	1.2%
United Continental Holdings Inc.	Airline	15,157	1.2%
Walgreens Boots Alliance Inc.	Pharmaceutical / Retail	12,685	1.0%
Northwestern University	Higher Education	10,241	0.8%
Presence Health	Health Care	10,183	0.8%
Abbott Laboratories	Health Care	9,800	0.8%
Jewel Food Stores, Inc.	Retail	9,660	0.8%
Total		134,006	10.5%
	Total Employments 2016	1,282,117	

Source: City of Chicago

FIGURE 2

Employment (Not Seasonally Adjusted)

Year	Chicago	% Chg	Cook County	% Chg	Illinois	% Chg	U.S ('000)	% Chg
2005	1,194,716		2,384,929		6,033,913		141,710	
2006	1,222,410	2.32%	2,441,887	2.39%	6,230,845	3.26%	144,418	1.91%
2007	1,242,947	1.68%	2,478,215	1.49%	6,334,010	1.66%	146,050	1.13%
2008	1,230,895	-0.97%	2,447,178	-1.25%	6,238,611	-1.51%	145,373	-0.46%
2009	**1,174,107**	-4.61%	**2,330,033**	-4.79%	5,943,229	-4.73%	139,894	-3.77%
2010	1,206,243	2.74%	2,356,472	1.13%	**5,937,047**	-0.10%	**139,077**	-0.58%
2011	1,208,382	0.18%	2,360,934	0.19%	5,948,366	0.19%	139,885	0.58%
2012	1,227,514	1.58%	2,397,794	1.56%	5,990,644	0.71%	142,475	1.85%
2013	1,232,951	0.44%	2,409,064	0.47%	5,958,978	-0.53%	143,941	1.03%
2014	1,253,337	1.65%	2,448,339	1.63%	6,046,057	1.46%	146,317	1.65%
2015	1,271,236	1.43%	2,481,080	1.34%	6,120,860	1.24%	148,845	1.73%
2016	1,282,117	0.86%	2,502,317	0.86%	6,154,867	0.56%	151,440	1.74%
2017 (Nov) [P]	1,288,493	0.50%	2,514,761	0.50%	6,166,021	0.18%	153,337	1.3%
Growth Since Low	114,386	9.74%	184,728	7.93%	222,792	3.86%	11,546	10.3%

Source: U.S. Bureau of Labor Statistics
Note: Lowest values over this period are in bold
[P] Preliminary numbers for Chicago, Cook County, and Illionis

Chicago's wealth levels are also quite strong, with income per capita growing 29.1% from 2010 to 2016, higher than both the State and the U.S. The City has a high level of poverty that is consistent with other large urban centers (See Figure 3).

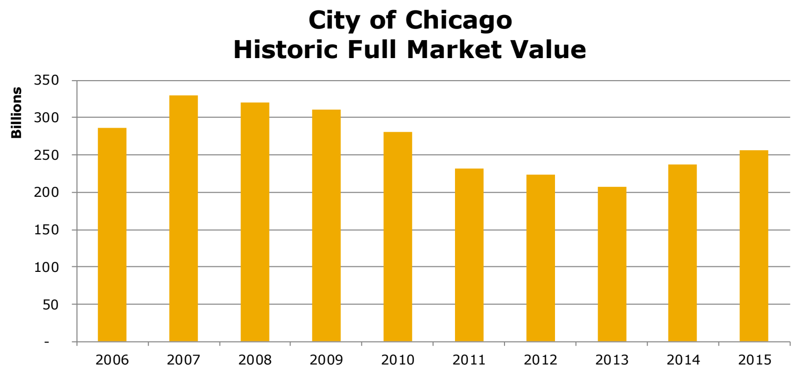
FIGURE 3

	2016 Population	Chg from 2010	2016 Age Dependency Ratio[1 2]	Chg from 2010	2016 Population with B.A. Degree or higher[2]	Chg from 2010	2016 Poverty Level[2]	Chg from 2010	2016 Income per capita	Chg from 2010
City of Chicago	2,704,965	0.2%	49.3%	-1.0	38.5%	5.2	19.1%	-3.4	$33,122	29.1%
Cook County	5,203,499	0.0%	56.0%	0.6	37.7%	3.8	14.9%	-1.8	$33,848	21.6%
Illinois	12,801,539	-0.3%	59.9%	1.4	34.0%	3.2	13.0%	-0.8	$32,849	20.2%
United States	323,127,515	4.5%	61.3%	2.5	31.3%	3.1	14.0%	-1.3	$31,128	19.5%
City of Chicago as % of Cook County	**n/a**		**88.0%**		**102.1%**		**128.2%**		**97.9%**	
City of Chicago as % of Illinois	**n/a**		**82.3%**		**113.2%**		**146.9%**		**100.8%**	
City of Chicago as % of United States	**n/a**		**80.3%**		**123.0%**		**136.4%**		**106.4%**	

Source: U.S. Census Bureau is used as the source in order to provide a consistent comparison among different units of government.
[1] Age dependency ratio is the sum of the population under 18 yrs and over 65 yrs divided by persons age 18 to 64 yrs.
[2] Year over year change shown as nominal change in percentage points.

Along with rising employment and income data, other signs of Chicago's rebound from the Great Recession include its residential and commercial property values. Total full market value (FMV) declined sharply in the Great Recession and experienced declines between 2008 and 2013. Since then FMV has stabilized and is recovering steadily (See Figure 4).

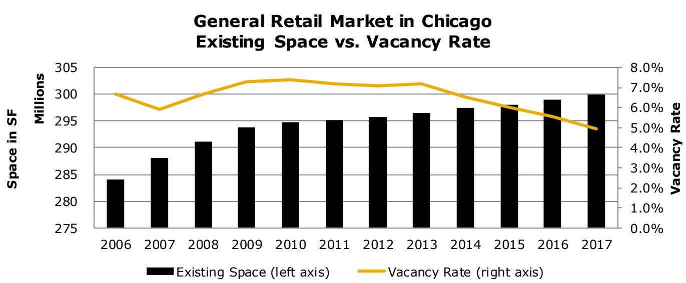
FIGURE 4

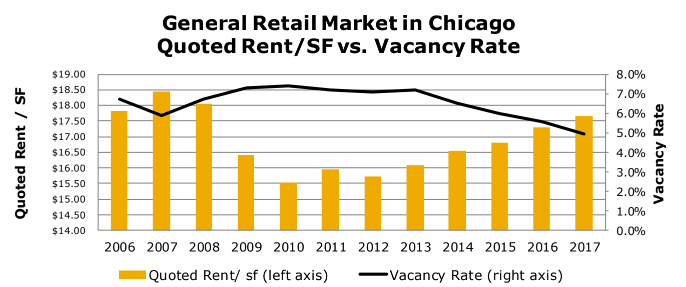


Source: City of Chicago 2016 CAFR

Recent downtown developments are expected to provide further positive momentum for the Chicago's tax base. Meanwhile, KBRA notes that general retail and office markets in Chicago are healthy with both rentable space and vacancy rates experiencing positive trends. For the first two quarters in 2017, vacancy rates in the general retail market are the lowest of the past decade. As a result of increased demand for retail space, per square foot (SF) rent shows healthy annual growth YOY since 2012 (See Figure 5).

FIGURE 5

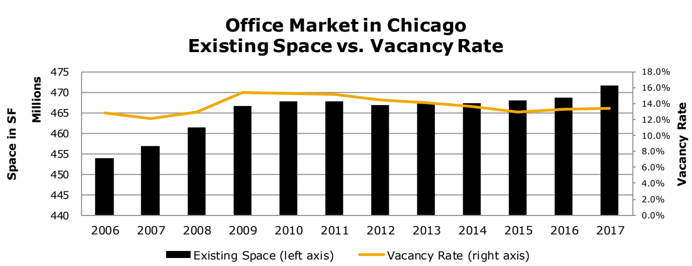


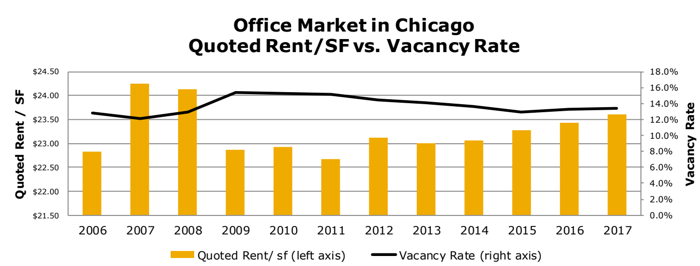


Source: CoStar Property

KBRA notes that continued growth in commercial activity is important and essential to provide a healthy environment for sales activities. According to CoStar, Chicago office vacancy rates have also improved since the Great Recession. And, according to the City, downtown office vacancy rates are at a 15-year low. Quoted office rent rates, however have not yet recovered to pre-recession peaks (See Figure 6).

FIGURE 6





Source: CoStar Property

Based on the foregoing, KBRA believes the City's Economic and Demographic base as very strong and views these characteristics as consistent with an Economic and Demographic Rating Determinant rating of AA.

Rating Determinant 3: Debt and Additional Continuing Obligations

Direct and Overlapping Debt

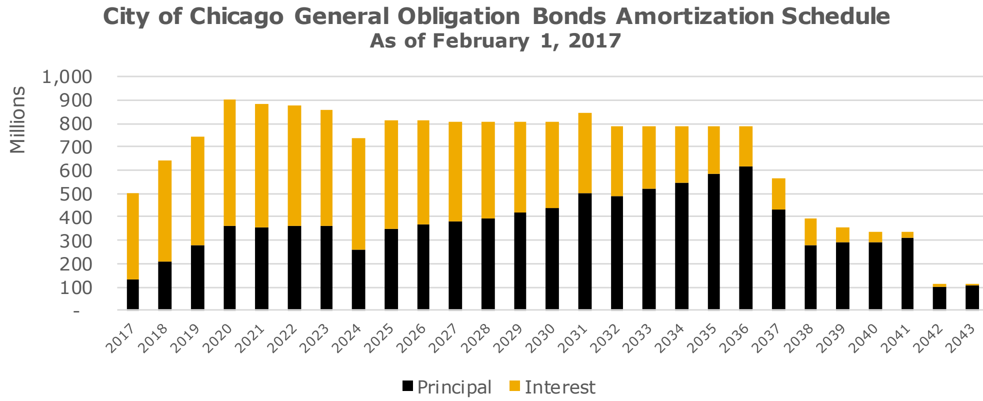
The City of Chicago and its overlapping jurisdictions (Chicago Park District, Chicago Public Schools, City Colleges of Chicago, Cook County, Cook County Forest Preserve District, and Metropolitan Water Reclamation District) have issued significant amounts of debt in recent years. KBRA views the City's overall debt per capita at $9,164 and the debt burden valuation, at 8.9% as moderately high. Direct debt represents over 40% of overall debt. General obligation debt increased substantially over the past ten years, as the City issued more than $3 billion of bonds to fund its capital program. Unfunded pension liabilities are also a significant obligation. If not for debt and pension credit concerns, the City's general obligation rating would be higher.

All of the outstanding City long-term general obligation debt is now in the form of fixed rate obligations, and there are no associated interest rate swaps. The City has used its Short-Term Borrowing Program for working capital in anticipation of receipts of other revenue and to fund capital projects, but has also used this source for non-capital expenditures such as settlements and judgments, and retroactive payment of employee salaries and wages, which are typically repaid from proceeds of later issuances of general obligation bonds or other revenue sources. The City has moved greater reliance on funding such costs on a current basis and eliminated "scoop and toss" debt restructurings in 2018, one year prior to the targeted 2019 date. The City has entered into a Revolving Line of Credit Agreement with three banks that provides borrowing capacity of $510 million, with a current outstanding balance of approximately $77 million. During fiscal year 2016, the City reduced its line of credit from $900 million to $510 million in recognition of improved liquidity.

In the fourth quarter of 2017, the City established a sales tax securitization structure through a separate corporation to achieve debt service savings. This structure shifts funding for debt repayment from the property tax to the sales tax. Approximately $744 million of bond issuance ensued that refinanced $500 million in outstanding sales tax revenue bonds, and about $166 million of general obligation bonds. An additional issue was sold earlier this year that refunded more than $757 million of general obligation bonds. The Corporation expects to refund approximately $1.3 billion of additional general obligation debt. KBRA has assigned a "**AAA**" rating to **Sales Tax Securitization Corporation** transactions.

Overlapping jurisdictions, particularly Chicago Public Schools and Cook County, have pension-related challenges of their own, which may impact Chicago taxpayers. In KBRA's view, City of Chicago taxpayers, who already pay high sales taxes, will likely experience other tax increases to address the funding inadequacy of multiple layers of government. In KBRA's estimation, pension funding now represents and will persist as a significant contingent liability for both the City and its overlapping jurisdictions. All overlapping jurisdictions are non-home rule units of government, and therefore cannot raise all these needed resources from increased property taxes because of the Property Tax Extension Limitation Law (PTELL). KBRA sees available options for non-home rule units as limited. Cook County also has large unfunded pension liabilities. While the degree of underfunding is less severe than the City's, concerns over meeting these obligations was among the reasons for the adoption of a 1% increase in the County home rule sales tax, effective January 1, 2016. Nevertheless, based on the findings of our report "**Chicago's Pension Liabilities: A Look Beyond Headlines and Ratios**", KBRA believes that funding requirements will be affordable and sustainable based on the City's wealth base.

FIGURE 7



Source: City of Chicago

Chicago Pension Funds

City employees participate in one of four defined-benefit pension plans: (1) the Municipal Employees' Annuity and Benefit Fund of Chicago (MEABF) – covers most civil service employees of the City, and non-teacher employees of the Chicago Public Schools; (2) Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago (LABF) – covers employees who are members of certain unions; (3) Firemen's Annuity and Benefit Fund of Chicago (FABF) – covers City's sworn firefighters and paramedics; (4) Policemen's Annuity and Benefit Fund of Chicago (PABF) – covers City's sworn police officers, captains, lieutenants, and sergeants.

Each of the four funds is at present significantly underfunded. As of December 31, 2016, the net present liability of the four funds was $35.8 million according to actuarial valuations. The funded ratios, on an actuarial basis, range from 19% for the MEABF to 32% for the LABF.

In October 2015, the City Council approved a four-year property tax increase of $543 million solely to fund increases to the Police and Fire pension funds. The increased property taxes supported a ramp-up to actuarial funding. Full actuarial funding will commence in 2020, at which time police and fire pension funding will require a $297 million city increase over the 2019 contribution, according to the City's Annual Financial Analysis. In addition, for the MEABF and LABF funds, the City will switch to actuarially required contributions in 2022 and has dedicated revenue streams (MEABF – water/sewer usage tax; LABF – monies freed by a 911 surcharge increase) to ramp-up funding amounts over five years. Police and fire is expected to reach 90% funding by levy year 2055, and MEABF and LABF are expected to reach this threshold by 2057. Prior to legislative changes enacted over the last several years, the City made contributions in an amount determined by a statutory funding formula, which required employer contributions in a multiple of the amount contributed by employees two years prior to the year in which the property tax used to generate the contribution was levied. This statutory formula did not change to allow for shifts in demographic factors, such as longer retiree lifespans, and did not recognize the effect of benefit enhancement – including automatic cost of living adjustments, and early retirement incentives which reduce contributions and increase benefit costs. Many years of non-actuarially based funding were compounded by economic downturns in 2000 and 2007-09 that sharply lowered investment returns and further reduced funded ratios. The City's workforce has declined in the past ten years, which has adversely affected contributions.

FIGURE 8

Dedicated Funding Sources for City of Chicago's Pension Funds

Fund	Funding Source	Statutory Funding Schedule
PABF & FABF	$543 million property tax increase begun in 2015	Funding ramp up to ARC by 2020, 90% funded target by 2055
MEABF	Municipal water and wastewater tax implemented in 2017	Funding ramp up to ARC by 2022, 90% funded target by 2057
LABF	911 surcharge increase allowing for increased Corporate Fund contribution	Funding ramp up to ARC by 2022, 90% funded target by 2057

Source: City of Chicago

Capital Program

The City's capital improvement program (CIP) is a 5-year plan of projects that encompasses general City, water and sewer, and airport infrastructure and facilities. Funding comes from general obligation bond issues, revenue bond issuance (mainly water, sewer, and aviation improvements), state and federal funding, operating revenue and tax increment financing. A total of $7.6 billion of improvements is included in the 2017-21 program, including $2.1 billion related to general City purposes. The CIP anticipates $660 million of general obligation bond issuance. Transportation projects represent approximately $1.1 billion, and include bridge, viaducts, intersections and major streets, and transit, bicycle, pedestrian programs. The CIP is not part of the operating budget cycle, but City Council approval is required for most funding sources.
Based on the forgoing, KBRA affirms the outstanding BBB rating determinant rating for Debt and Continuing Obligations.

Rating Determinant 4: Financial Performance and Liquidity

Pro-Active Financial Management

Notwithstanding the pension and debt service funding issues that represent significant fixed costs going forward, KBRA believes that the City's management team has been pro-active in implementing necessary measures to stabilize and improve financial operations. This follows a period characterized by structural budget deficits and the use of non-recurring sources in the prior administration. Progress has been made in matching operating revenues and expenditures, despite the cyclical nature of major Corporate Fund operating revenues, and notable pressures exerted by long-term obligations like pensions. Reforms and innovative approaches to confronting service delivery issues have resulted in savings. KBRA views positively management's efforts to stabilize reserves, which is underscored by the adopted budget stabilization policy in fiscal 2016 that requires maintenance of unrestricted fund balances in excess of two months of operating expenditures and does not appropriate more than one percent of the value of the annual corporate budget from the prior year's audited unassigned fund balance in the current year's budget. The Budget Stabilization Fund includes three sources of unrestricted fund balance, which reside in the Special Revenue and Corporate Funds: (1) Asset Lease and Concession Reserves ($620 million) – Chicago Skyway and metered parking system; (2) Operating Liquidity Fund ($10 million) – created in 2016, with $5 million transfers of a portion of unassigned corporate fund balance planned for FY 2017 and FY 2018; (3) unassigned fund balance. The unassigned fund balance has increased from $33.8 million (1.1% of General Fund expenditures) at FYE 2013 to $153.7 million (4.4% of General Fund expenditures) at year-end 2016. Budget Stabilization Fund resources approximate 22.5% of General Fund expenditures.

KBRA believes that the City's management team has made a number of significant financial and operational improvements. Financial reporting has been improved through the Annual Financial Analysis (AFA), a three-year forecast that evaluates financial performance, forms the framework for the subsequent year's operating budget and capital budget, and guides financial and operational decisions. Beginning with the 2012 budget, management began the practice of aligning revenues and expenses, and phased-out use of reserves derived from leased asset sales. Now only the interest earnings are used for operations. Practices prior to 2012 had largely drawn down Parking Meter balances, which originated from the long-term concession of the City's metered parking program ($1.15 billion). Significant amounts of these reserves had been used for operations, particularly in the 2009-2011 period. In 2012, the City faced a $635.7 million structural deficit, which had been reduced to a manageable $114.2 million when FY 2018 budget deliberations began. KBRA would view reduction of long-term reserves as a negative action with potential adverse rating implications.

In KBRA's view, management has strived for greater efficiency, and sought innovative solutions to increasing expenditure pressures. Notable instances include a competitive bidding program for recycling services, a re-worked waste collection system, a process to evaluate vacant positions, implementation of an employee wellness program, and workers' compensation reforms. Workers' compensation reforms, which contributed to savings, include a reassessment of the medical billing review process, increased investigations to prevent fraud, implementation of return-to-work programs for injured employees, more active case management, and initiatives to improve energy efficiency. The 2018 budget identified $19.35 million in General Fund savings and reforms in personnel and non-personnel expense. Healthcare costs have remained relatively flat, abetted by the phase-out of retiree healthcare coverage for certain retirees.

Revenue and Expenditure Sources

Revenue sources are diverse, with property taxes at 18.6% of fiscal 2016 Total Governmental Fund revenues, the largest source. Sales taxes account for 10.3%, the utility taxes represent 8.0%, and the state income tax represents 6.0%. Total tax revenues represent 70.3% of Governmental Fund revenues. Federal/state grants are an additional 10.7%, while fines represent 4.9%, and internal service earnings are 5.4%. Corporate Fund expenditures are concentrated, with public safety (30.5%) and general government (27.6%). City pension contributions totaled $810.5 million in fiscal year 2016, equivalent to 10.9% of expenditures, while OPEB contributions approximated $90 million, or 1.2% of expenditures. Debt service comprised 15.4% of expenditures in fiscal year 2016.

Corporate Fund Operations

The City's Corporate Fund (99% of the General Fund), its general operating fund, supports an array of services and activities, including police and fire protection, emergency management, trash collection, and public health programs. Revenues are derived from various locally generated taxes, intergovernmental taxes, and non-tax revenue sources. These include local taxes, such as public utility taxes, transaction taxes, transportation taxes, recreation taxes, and business taxes. Intergovernmental taxes include sales and use taxes, the state income tax, and personal property replacement taxes. Non-tax sources include licenses and permit fees, fines, charges for services, leases and rentals, and internal service earnings – transfers to Corporate Fund for services provided to other City funds and agencies. The property tax is not used for general operations, but is instead a funding source for libraries, pensions, and debt service requirements.

FIGURE 9

General Fund FY 2011-FY 2016

Revenues, Expenditures and Changes in Fund Balance (Modified Accrual Basis) ($'000)

	2016	2015	2014	2013	2012	2011
General Fund Revenue	$3,682,612	$3,466,635	$3,176,150	$3,030,491	$2,920,656	$2,781,166
percent change	6.2%	9.1%	4.8%	3.8%	5.0%	
General Fund Expenditures	$3,473,208	$3,433,102	$3,231,258	$3,109,074	$3,081,369	$3,040,436
percent change	1.2%	6.2%	3.9%	0.9%	1.3%	
Surplus (Deficit) from Operations	209,404	33,533	(55,108)	(78,583)	(160,713)	(259,270)
Total Other Financing Sources (Uses)	($155,054)	$40,421	$29,329	$14,338	$56,482	$459,262
Net Change in Fund Balance	54,350	73,954	(25,779)	(64,245)	(104,231)	199,992
Total Fund Balance	$269,582	$215,232	$141,278	$167,057	$231,302	$335,533
Nonspendable Fund Balance	$23,730	$23,828	$24,498	$24,788	$20,885	
Spendable Fund Balance						
Restricted Fund Balance						
Assigned Fund Balance	$92,115	$98,377	$65,223	$108,424	$177,000	$143,549
Committed Fund Balance						
Unassigned Fund Balance	$153,737	$93,027	$51,557	$33,845	$33,417	$167,929
Unassigned Fund Balance as a % of General Fund Expenditures	**4.4%**	**2.7%**	**1.6%**	**1.1%**	**1.1%**	**5.5%**

Source: City of Chicago Audited Financial Statements FY 2011 - FY 2016

Key Revenue Performance

Public utility taxes, which consist of telecommunications services, electricity, natural gas and cable television, currently constitute about 12% of Corporate Fund revenues. Revenues from these sources have ranged from $501 million in 2007, to $434 million in 2016. The year-end 2017 estimate for this source is $421.8 million. Electricity and natural gas are highly dependent upon weather conditions and price, and are also affected by technological change that impacts consumer behavior and energy use. Long-standing reductions in telecommunications taxes are due to a decline in the use of landlines, as more customers choose only wireless service. Telecommunication revenues have declined from $154.5 million in fiscal 2007 to $103.6 million in fiscal 2016 and are expected to drop further to $99 million in the current fiscal year. Electricity tax revenues have declined modestly over that period from $197 million to $190 million. During fiscal year 2008, natural gas prices were historically high, and city revenues reached $153.2 million. With prices dropping in 2012, only $98.8 million was generated. The rise in natural gas prices in 2013, along with a colder than normal fall and winter led to $122.1 million in revenues, 23.6% above 2012. Year-end estimates for 2017 are $115.1 million, reflecting a mild winter and warmer than normal spring.

Transaction taxes include real property transfer tax, personal property lease transaction tax, and short-term lease of motor vehicles and comprised 12.7% of Corporate Fund revenues in FY 2016. Real property transfer taxes track the economy and real estate market and have grown significantly in recent years as the housing market strengthened and commercial real estate activity expanded. Real property transfer taxes reached $242.3 million in 2006 and declined to $61.9 million in 2009 during the height of the recession. The real estate market did not exhibit significant growth until 2012. In subsequent years there were multiple large property transfers that contributed to transfer tax revenues, including the Aon Center and Willis Tower in 2015, and the Chicago Skyway and Millennium Park Garages in 2016. Year-end 2017 real estate transfer taxes are expected to by 7.4% above the 2017 budgeted amount of $394.9 million, reflecting the strength of the real estate market, business growth, and improved compliance with business tax ordinances.

Transportation taxes accounted totaled $197.9 million and accounted for 6.7% of Corporate Fund revenues in FY 2016, and include taxes on vehicle fuel, parking facilities and ground transportation Revenues have grown in recent years due to changes in taxes applicable to the ride share industry, along with parking garage tax rate changes. Ground transportation taxes are expected to total $109 million, which is a $41 million increase over projection made in the summer of 2017, with 90% of the increase attributable to the rideshare industry.

Intergovernmental tax revenues consist of the City's share of the Illinois state sales and use taxes, income tax, and the personal property replacement tax. The City's share of the state sales tax is supplemented by a 1.25% home rule sales tax. The total Chicago sales tax is 10.25%. Combined sales taxes account for an average of approximately 17.0% of Corporate Fund revenues over the past ten years. Sales taxes reached $543.2 million in 2007, and dropped to $476.6 million in 2009, and it was not until 2012 that pre- recession levels were achieved, when $572.2 million was recorded. Moderate growth has continued, with $674.5 million collected in 2016, but not all of the increases are flowing to the Corporate Fund, as an increasing portion of gross revenues are being used to pay debt service on Sales Tax Securitization bonds.

Income tax revenues have followed an irregular pattern. Growth was recorded in pre-recession years, followed by declines in the years after 2008. From 2004 to 2007, income tax revenues grew an average of 10% per year and reached $268.8 million in 2008. Revenues declined by 25.5% to $201 million in 2009. While there was a rebound in 2010, revenues decreased again in 2011 due to continued high unemployment rates (peak of 11.3%), the decline in population under the 2010 census, and a delay in state distributions. Beginning in the second half of 2011, income tax revenue performance, closely reflected improvement in the overall economy, and reached a peak of $286.5 million. Since then, individual income tax receipts have declined, due to more limited capital gains, and contracting corporate income tax receipts, despite recent employment and wage gains. Income tax revenue is expected to end FY 2017 at $250.1 million, which is below budget, and increases nominally in 2018 to $252.5 million.

Personnel Spending

Public safety represents the largest component of Corporate Fund spending, with police services representing 41%, the fire department 16.4%, and the Office of Emergency Management and Communications 3%. Corporate Fund expenditures for City services had remained relatively stable between 2007 and 2014, but in recent years expenses have increased due to investments in public safety and community service programs. Over the past ten years, the city workforce has declined from 40,264 budged full-time equivalents (FTEs) to 35,655 budgeted FTEs in 2017. Despite the overall workforce reductions, the 2017 budget increased the number of FTEs by 4.0%, mainly due to the addition of 970 sworn police officer positions, half in 2017, with the balance in 2018. Personnel-related expenditures are the largest component of Corporate Fund spending. Spending on personnel has averaged more than 85% of Corporate Fund expenditures over the past 10 years, with healthcare expenses representing about 12% of personnel costs. It is notable that healthcare costs have been largely contained over the past five years.

Over ninety percent of City positions are represented by unions. The City enters into collective bargaining agreements with 40 different unions. The two largest bargaining units are the Fraternal Order of Police (FOP) and the Coalition of Union Public Employees (COUPE), which represents trades positions. Other large bargaining groups are the firefighters, the American Federation of State, County, and the American Federation of State, County and Municipal Employees (AFSCME) and the Service Employees International Union. All contracts, with the exception of the COUPE agreement, have expired. The five-year COUPE Agreement, ratified in January, provides for average annual wage increases of 2.1%, reduces the City share healthcare contributions, and provides increased work rule flexibility for the City.

Fiscal Year 2017 Projections

An approximate $15.2 million surplus is projected in the Corporate Fund for FY 2017 on a budgetary basis. Total Corporate Fund resources are forecast to grow by 3.1% over the prior year actual results. The City's home rule sales tax has remained relatively flat in recent year, following a post-Great Recession rebound. Sales and use taxes are expected to end 3.4% below the budget amount, due in part to a new 2.0% administrative charge for State of Illinois collected local sales taxes, implemented with the adoption of the State's FY 2018 budget. Certain revenues are expected to end the year below budget, including fine revenue, and some other economically sensitive revenues growing at a slower pace than budgeted. These reductions are offset by strong performance of other economically sensitive sources, including transaction taxes (real property transfer tax, personal property lease transaction tax, and short-term lease of motor vehicles), which are up over 7% as compared to budget. Transportation taxes (ground transportation, parking, vehicle fuel), 11.6% above budget, and recreation taxes, 12.5% better than budget. The City's 2017 budget originally anticipated $132.3 million in personal property replacement tax (PPRT) revenue, but the City now estimates this revenue source at $160.4 million. The 2017 budget anticipated that the State of Illinois would continue efforts to recover PPRT funds that were mistakenly distributed to local units of government between April 2014 and March 2016. Corporate Fund expenditures are currently expected to end the year at the budgeted level. Projected expenditures reflect lower than expected expenses in wages and salaries due to position turnover, offset by increases due to public safety overtime.

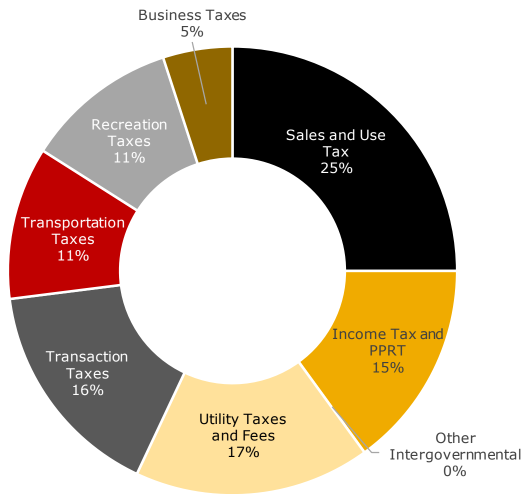
Fiscal Year 2018 Budget

The City's FY 2018 budget was approved by the City Council on November 21, 2017 following a 47-3 vote. The budget proposes Corporate Fund spending of $3.77 billion, approximately 1% higher than the 2017 budget. The budget closes a preliminary $114.2 million Corporate Fund budget gap by expenditure cuts and governmental reforms ($19.4 million); improved fiscal management ($119 million), which includes debt service savings, and TIF surplus reform and value capture; improved debt collection and billing enforcement ($10.8 million); growth in economically sensitive and other revenues, including ground transportation and hotel taxes ($50.3 million); revenue enhancements and loophole closing, including the 911 surcharge freeing up Corporate Fund revenue, and amusement tax equalization ($38.8 million); and $37 million from prior year unassigned General Fund balance. The City has adopted a policy of not appropriating more than 1% of the value of the annual Corporate Fund budget from the prior year's unassigned fund balance. In addition, the budget provides $103.5 million for funding new police officer hires as part of the second year of a 970-position increase, and $80 million for Chicago Public schools security costs and after school programming.

The budget proposes to increase Corporate Fund spending by $38.9 million or 1.0% over the prior year mainly due to additional police personnel.

FIGURE 10

2018 Budgeted Tax Revenues $2.595B | **2018 Budgeted Non-Tax Revenues $1.116B**



Source: City of Chicago

Based on the foregoing, including the increased unassigned General Fund balance and the establishment of the Operating Liquidity Fund, KBRA has revised the Financial Performance and Liquidity rating determinant rating to A+ from A.

Conclusion:
Kroll Bond Rating Agency has revised to A from BBB+ with a Stable Outlook the rating for the City of Chicago's general obligation bonds.

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Related Publications:
- **City of Chicago, IL General Obligation Bonds report**, published on March 24, 2015 – KBRA's initial rating of the City's GO Bonds
- **City of Chicago, IL General Obligation Bonds, Project and Refunding Series 2017A Taxable Project Series 2017B**, published on December 16, 2016
- **Chicago's Pension Liabilities: A Look Beyond Headlines and Ratios**, published July 25, 2017

City of Chicago, IL

Assigned	Rating(s)	Outlook
General Obligation Bonds, Series 2019A	A	Stable

Affirmed	Rating(s)	Outlook
General Obligation Bonds	A	Stable

Methodology:

U.S. Local Government GO Methodology

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Rating Summary: The City of Chicago's ("the City") general obligation bonds are direct and general obligations of the City and are payable from any moneys, revenues, receipts, income, assets or funds of the City legally available for such purpose, and are secured by the City's full faith and credit pledge without limitation as to rate or amount. Proceeds of the Series 2019A Bonds will be used to fund capital projects and retire all of the City's outstanding commercial paper.

In KBRA's opinion, City management has improved long-term financial stability by making significant progress toward achieving structural balance through greater efficiencies and reduced reliance on non-recurring revenue sources. Management has also implemented reforms that set-in motion a path to fiscal solvency for the City's four pension funds. Nevertheless, KBRA believes that there are still associated uncertainties, including large required pension investment increases as the current ramp-up funding period ends and actuarial funding commences in 2020 for the Police and Fire pension funds, and 2022 for the two non-uniformed funds. Furthermore, post-ramp up sources remain to be identified. These are challenges that will confront the new administration that assumes office in May 2019.

In July 2017, KBRA published a study **Chicago's Pension Liabilities: A Look Beyond Headlines and Ratios**. In that study, KBRA examined the City's tax and wealth base, the debt and continuing obligations of the City and overlapping jurisdictions, and the operational flexibility of these entities to make necessary adjustments to meet funding challenges. We found that despite the large cost increase, the City's wealth base would be able to absorb these obligations in an affordable manner. In addition, home rule authority confers significant operating flexibility.

City financial operations are characterized by a reliance on economically sensitive revenue sources. The adverse impact of the Great Recession resulted in liberal use of long-term reserve funds to subsidize the City's operating budget, in lieu of expenditure reduction or revenue enhancement decisions. The reserves were established from long-term asset leases, and were drawn down considerably in the 2009-11 period.

Beginning in 2011, progress toward structural balance began. In 2012, the City amended its ordinance to restrict transfers to interest earnings only. At year-end 2017, the reserve funds held $668.3 million, equivalent to about 19.3% of Corporate Fund expenditures. These balances supplement Corporate Fund balance with an unassigned reserve equal to 4.5% of Corporate Fund expenditures. In addition, the City maintains an Operating Liquidity Fund, with a balance of $20 million, and plans to add an additional $10 million in FY 2019. These three unrestricted sources are referred to collectively as the Budget Stabilization Fund, and in combination currently are in excess of the minimum threshold of two months operating expenditures. KBRA would view significant use of long-term reserves for operations as an unfavorable action with potential negative rating implications.

Chicago's total debt, including overlapping debt is high and has been growing. Debt burden is 7.9%, and overlapping debt constitutes more than 55% of overall debt. Unlike the City, many of the overlapping entities are highly dependent on property taxes. Except for Cook County, which has home rule authority and enacted a 1% increase in sale tax rates to help fund pension obligations, the other entities are unlikely to be able to raise significant revenues from other sources to meet unfunded pension liabilities. These non-home rule units are subject to the Property Tax Extension Limitation Law (PTELL), which limits reassessment-based property levy growth to the lesser of 5% or the consumer price index.

KBRA views the City's municipal resource base as strong and diversified. Chicago is the third most populous city in the U.S., and a regionally important hub for the Midwest. It is home to more than 400 corporate headquarters, numerous Fortune 500 companies, 650 companies that have either expanded or relocated, and more than 60 post-secondary institutions The City has an extensive mass transportation network for both intra-city and suburb-city commuter travel.

The **Stable Outlook** reflects the City's identification and dedication of permanent revenue sources to address its severely underfunded pensions. In KBRA's opinion, this is not a panacea, as additional revenue sources will be required once the ramp-up period is concluded and the pension funding is on an actuarial schedule. This financial risk will have to be addressed by a new administration, and require critical decision-making.

Key Rating Strengths

- Effective management team nearing the end of its tenure, has improved the stability of financial operations by reducing reliance on non-recurring revenues, and enhanced the City's budgeting, forecasting and operational policies.
- City's substantial tax base and deep and diverse economic base commensurate with its position as the nation's third largest city, and role of regional center for a large surrounding area.
- Ample available reserve balances supplement Corporate Fund reserves and liquidity position. City management is making progress in achieving structural balance.

Key Rating Concerns

- Need to identify significant long-term funding sources as pension funds transition to an actuarial schedule.
- Continued reliance on economically sensitive revenue sources to fund operations.
- Slow bond amortization due to prior use of "scoop and toss" debt restructurings to augment operating resources. This practice, with respect to GO refunding bonds, ended in 2018, one year prior to target date, but refinancing by Sales Tax Securitization Corporation has extended the maturity of the debt refunded.

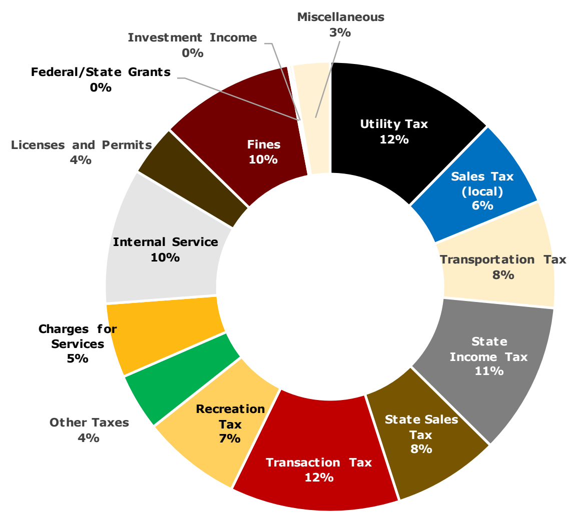
Drivers for Rating Change

Drivers	
• Lowered debt ratios, reflecting moderation of borrowing by City and overlapping jurisdictions and continued resource base expansion. • Identification and implementation of revenue sources to meet actuarial requirements	+
• If management does not maintain established financial and debt policies and/or act in a fiscally responsible manner • Inability to effectively accommodate increased pension funding requirements.	-

Key Ratios	Pro Forma
Overall Direct and Indirect Debt Per Capita (Current)*	$8,498
Overall Debt as a % of Full Market Value	7.88%
Debt Amortization within 10 Years	28.9%
Days Cash on Hand	79 Days
Unassigned GF Balance as a % of GF Expenditures	4.50%
Fixed costs as a % of Total Governmental Expenditures (pro forma)**	70.6%
Per Capita Income as % of Illinois	100.2%

Note that Corporate Fund equals 99% of the General Fund
* Overlapping debt includes STSC and Cook County Sales Tax in addition to Chicago's portion of its coterminous' GO debt
**pro forma debt service, pension, and est. OPEB Contributions in FY 2020/FY 2017 Gov't Exp

City of Chicago, IL
General Fund Revenue Diversity FY 2017



Rating Determinants (RD)	
1. Management Structure and Policies	AA+
2. Debt and Additional Continuing Obligations	BBB
3. Financial Performance and Liquidity Position	A+
4. Municipal Resource Base	AA

RD 1: Management Structure and Policies

Governance and Management Structure and Policies

KBRA views the City's management structure and policies as providing a strong framework for managing debt, financial operations, and service delivery. The City's management team is highly experienced, and comes from a wide variety of disciplines, supplementing traditional management skills and adding new perspectives. Financial responsibilities are domiciled under the leadership of the Chief Financial Officer, Budget Director, and City Comptroller. City government is divided into executive and legislative branches.

The Mayor is the chief executive and is responsible for administration of various city departments, while the City Council, elected from 50 wards (municipal districts), is the legislative body. Elections are held every four years, with no term limits. Official action is taken through the passage of ordinances and resolutions. In addition to the mayor, Chicago's two other city-wide elected officials are the clerk, and treasurer, whose role is to invest City funds. The Mayor also appoints all board members of the Chicago Park District and Chicago Public Schools.

KBRA believes that the City of Chicago's management team has made significant progress toward achieving structural balance through cost saving measures and reduced reliance on non-recurring sources. A commitment to raising revenues and controlling expenses has been demonstrated. City government priorities and activities are established in the budget ordinance usually adopted in November of each year, following submission by the Mayor. In addition, the City as part of its long-term financial planning, publishes the Annual Financial Analysis (AFA) by July 31 of each year. This report evaluates the City's financial performance, including a historical analysis of the City's revenues and expenditures, a financial forecast and analyses of the City's reserves, capital program, debt and pensions. For fiscal year 2019, the AFA identified a structural deficit of $97.9 million, which while large, is significantly smaller than the $635.7 million identified 2012 budget gap. Besides aligning revenues and expenditures, and reducing reliance on non-recurring sources, the Administration has sought greater efficiency and innovative solutions to rising expenditure pressures. During fiscal year 2016, the City enacted a fiscal stabilization policy that requires an unrestricted budgetary fund balance of no less than two months operating expenses. Asset Lease and Concession Reserves, Operating Liquidity Fund and unassigned General Fund balance are the three sources of unrestricted fund balance and are referred to collectively as Fund Stabilization. These sources currently total more than $840 million.

Favorable progress has also been made in addressing the City's significantly underfunded four single-payer defined benefit pension funds. Overcoming adverse court decisions, City officials effectively worked with labor unions and Illinois General Assembly membership to identify and dedicate permanent revenue streams for its pension funds (property tax increase, water-sewer tax, 911 surcharge). KBRA views the adoption of these measures favorably, as they establish a roadmap to pension fund solvency. While additional funding will be required once an actuarial funding schedule begins - 2022 for Municipal/Laborers, and 2020 for Police/Fire, based on KBRA's analysis the magnitude of required increases is expected to be affordable and sustainable based on the City's wealth base. The total unfunded actuarial accrued liability of the four pension funds was $28.0 billion at year-end 2017. The City has phased out OPEB health care subsidies for most retirees, following favorable court decisions.

The contributing factors to this large unfunded liability are complex and interwoven. Under the Illinois Pension Code, pension contributions were state-mandated; the City had no input into contribution levels. Both benefit levels and funding were set by State law. A static statutorily-required formula, rather than an actuarially-based formula, that does not adjust for changes in investment returns, the changing demographics of retiring employees, or benefit enhancements, including automatic cost of living adjustments, all contributed to this complexity. These funding issues were compounded by economic downturns in 2000 and 2007-2009, which sharply reduced funded ratios.

Annual Financial Analysis

Government priorities and activities are established in a budget ordinance usually adopted in November of each year, following submission by the Mayor. By law, the City must have a balanced budget approved by December 31 of the year preceding the budget year. In addition to annual budgets, the City as part of its long-term financial planning, releases the Annual Financial Analysis (AFA) by July 31 of each year. This report evaluates the City's financial performance, including a historical analysis of the City's revenues and expenditures, a financial forecast and analyses of the City's reserves, capital program, debt and pensions.

The AFA includes current year estimates, preliminary budget projections, and three revenue and expenditure scenarios for the subsequent two years. The AFA forms the framework for the subsequent year's budget and capital budget and guides the City's financial and operational decisions. It is developed by the Budget Director, with input from the Mayor's Economic, Budgetary, and Business Development Council, the Deputy Mayor, the Chief Financial Officer, the City Comptroller; City departments, and elected officials. This process is the result of an Executive Order by the Mayor in 2011, soon after assuming office. The City's fiscal year is the calendar year.

Budget Process

All departments and agencies whose budgets will become part of the City's proposed budget for the following fiscal year are considered by the Budget Director. The final budget recommendation is submitted to the City Council for consideration by the Council's Committee on the Budget and Government Operations. The proposed budget may be changed by the City Council through amendments made as part of the City Council hearing and review process. The Committee on the Budget and Government Operations and then the full City Council vote on the budget and any amendments. The Council-approved budget in the form of an annual appropriation ordinance is then forwarded to the Mayor for approval. If the Mayor vetoes the approved annual appropriation ordinance, the City Council may override the veto with a two-thirds vote.

Public quarterly budget reports are released and present an overview of the City's operating revenues and expenditures as compared to budgeted amounts and explain any notable aberrations or trend in these numbers. Proposed amendments to the annual appropriation ordinance are referred to the Council's Committee on the Budget and Governmental Operations for consideration and approval at a committee hearing, followed by a full City Council vote. If approved by a majority of members, the amendment is adopted, and the appropriation ordinance is amended accordingly. Amendments to the City's annual appropriation ordinance must be made at the series level, e.g., personnel, contractual services, travel, commodities and materials. Budgeting has generally been conservative in recent years, without the need for significant intra-year adjustment, and year-end results approximating budget.

The Budget uses the budgetary basis of accounting. For budgetary purposes, encumbrances are recorded as expenditures, but are included in "assigned" fund balance for GAAP purposes. Proceeds of long term debt and transfers in are classified as revenues. Audited Governmental Fund financial statements are reported using the current financial resources measurement focus and the modified accrual basis of accounting. The City considers revenues to be available if they are collected within 90 days of the end of the current fiscal period, apart from property tax revenue, which is recorded as deferred inflows unless taxes are received within 60 days after year-end. License and permit fees, charges for services and miscellaneous revenues are not considered to be susceptible to accrual and are recorded as revenues when received in cash.

Focus on Efficiency

KBRA also believes that management has strived for greater effectiveness and sought innovative solutions to rising expenditures pressures. This is evident in waste collection and recycling programs. In 2011, the City initiated a competitive bidding process for the provision of recycling services. The result was that certain areas of the City could be better served by private companies, while city crews were more effective in other areas. Nevertheless, the total cost of city-wide recycling was significantly below what would have been achieved without the competition. The City has also changed its method of waste collection from a ward-based system to one based on main thoroughfares and natural boundaries with savings of approximately $18 million annually.

The City has also undertaken a reorganization and consolidation of City department office space leading to a reduction in leased property space. A concurrent benefit is the grouping of similar functions together, and the achievement of greater coordination. To reduce energy costs, the City has installed more energy-efficient LED traffic and street lights, and increased use of technology and monitoring to more effectively analyze trends and decisions on energy purchasing. To counter rising fuel prices, the City acted to reduce its vehicle fleet and reduce fuel usage. It ended its shared lease program, and contracted with Zipcar for short-term vehicles, and started to use Zipcar reservation technology to achieve more efficient use of City pool vehicles. Currently, the City utilizes more than 2,200 electric, hybrid, and alternative fuel vehicles, including police cars, trucks for street, electrical work, and tree trimming. In work-force matters, the City has similarly sought savings. A process to evaluate vacant positions to see if they can be eliminated has resulted in the elimination of more than 2,000 vacancies. The City has reduced the use of outside law firms, increased reliance on in-house resources, and engaged Chicago law firms to handle certain matters on a pro-bono basis. To contain employee and dependent health care costs, the City implemented a wellness program. The City has also enacted sharp reductions in retiree health care costs, and identified workers' compensation reforms to reduce costs, including a reassessment of the medical billing review, and increased fraud investigations.

Home Rule Status

The City is a home rule unit of government under the Illinois Constitution of 1970, which designates any municipality in the State with a population greater than 25,000 as a home rule unit. Municipalities of less than 25,000 may elect by referendum to become a home rule unit. KBRA believes this designation provides wide latitude to the City in structuring its government and municipal policies without interference from the State. It has afforded management flexibility in implementing additional taxes, most notably the home rule sales tax, but also including utilities, hotels, real estate transfers, restaurants, alcohol, tobacco products, and lease receipts. Home rule status also exempts Chicago from operating tax rate limits, the effects of the Property Tax Extension Limitation Law, although the City has adopted its own tax limitation ordinance that mirrors the state statute.

Based on the foregoing, KBRA affirms the outstanding AA+ Rating Determinant rating for Governance and Management Structure and Policies.

Bankruptcy Assessment

KBRA has consulted with external counsel regarding the statutory framework regarding municipal bankruptcy in the State of Illinois. KBRA understands that the City is established as a political subdivision by Illinois statute. As such an entity, it meets the definition of a municipality under Chapter 9 of the U.S. Bankruptcy Code. State law does not currently permit municipalities in the State to file for protection under the U.S. Bankruptcy Code, except in accordance with the provisions of the Local Government Financial Planning and Supervision Act (the "Act"). 50 ILCS 320/1. Under the Act, applicable only to units of local government that have a population under 25,000, a financial planning and supervision commission has the power to recommend to a unit of local government that the unit file a petition under Chapter 9 of the U.S. Bankruptcy Code and submit this recommendation to the State. 50 ILCS 320/9(b)(4). State law, however, does not currently include any provisions specifically authorizing any municipal entity other than the Illinois Power Agency to file a bankruptcy petition. Further, it is KBRA's understanding that the existing broad grant of home rule powers to home rule municipalities such as Chicago, under the Illinois Constitution and other Illinois law, are unlikely to satisfy the standard for specific authorization required to permit the City to file for protection under the U.S. Bankruptcy Code. However, it is possible that the State of Illinois may in the future permit municipalities such as the City of Chicago to file for bankruptcy relief, and a bill that would grant such authority has been introduced from time to time in the General Assembly.

RD 2: Debt and Additional Continuing Obligations

Direct and Overlapping Debt

The City of Chicago and its overlapping jurisdictions (Chicago Park District, Chicago Public Schools, City Colleges of Chicago, Cook County, Cook County Forest Preserve District, and Metropolitan Water Reclamation District) have issued significant amounts of debt in recent years. KBRA views the City's overall debt per capita at $8,498 and the debt burden valuation, at 7.9% as moderately high. Direct debt represents over 40% of overall debt. General obligation debt increased substantially over the past ten years, as the City issued approximately $3.5 billion of bonds to fund its capital program, but a substantial portion has been refunded by Sales Tax Securitization Corporation issuance, which has also refinanced outstanding sales tax revenue bonds. Issuance by the Corporation totals $2.64 billion. Unfunded pension liabilities are also a significant obligation.

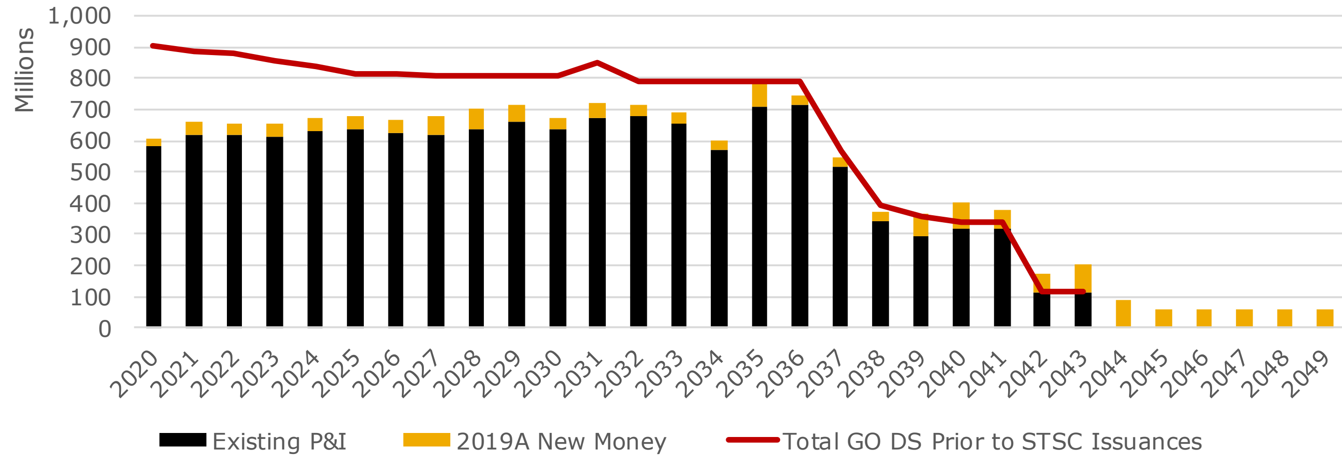
All outstanding City long-term general obligation debt is now in the form of fixed rate obligations, and there are no associated interest rate swaps (GO amortization schedule in Figure 1). The City has used its short-term Borrowing Program for working capital in anticipation of receipts of other revenue and to fund capital projects, but has also used this source for non-capital expenditures such as settlements and judgments, and retroactive payment of employee salaries and wages, which are typically repaid from proceeds of later issuances of general obligation bonds or other revenue sources. The City has moved greater reliance on funding such costs on a current basis and eliminated "scoop and toss" debt restructurings in 2018, one year prior to the targeted 2019 date. The City has entered into a Revolving Line of Credit Agreement with three banks that provides borrowing capacity of $510 million, with a post-issuance of the Series 2019A balance of $78.6 million. During fiscal year 2016, the City reduced its line of credit from $900 million to $510 million in recognition of improved liquidity. The City's commercial paper program is authorized at $400 million with a current balance of $150.2 million.

In the fourth quarter of 2017, the City established a sales tax securitization structure through a separate corporation to achieve debt service savings. This structure shifts funding for debt repayment from the property tax to the sales tax. Approximately $2.64 billion of bond issuance ensued that refinanced all $502.4 million in outstanding sales tax revenue bonds, and almost $2 billion of general obligation bonds. The final STSC issue sold in January 2019. KBRA has assigned a "**AAA**" rating to **Sales Tax Securitization Corporation** transactions.

Overlapping jurisdictions, particularly Chicago Public Schools and Cook County, have pension-related challenges of their own, which may impact Chicago taxpayers. In KBRA's view, City of Chicago taxpayers, who already pay high sales taxes, will likely experience other tax increases to address the funding inadequacy of multiple layers of government. In KBRA's estimation, pension funding now represents and will persist as a significant contingent liability for both the City and its overlapping jurisdictions. All overlapping jurisdictions, apart from Cook County, are non-home rule units of government, and therefore cannot raise all these needed resources from increased property taxes because of the Property Tax Extension Limitation Law (PTELL). KBRA sees available options for non-home rule units as limited. Cook County also has large unfunded pension liabilities. While the degree of underfunding is less severe than the City's, concerns over meeting these obligations was among the reasons for the adoption of a 1% increase in the County home rule sales tax, effective January 1, 2016. Nevertheless, based on the findings of our report "**Chicago's Pension Liabilities: A Look Beyond Headlines and Ratios**", KBRA believes that funding requirements are affordable based on the City's wealth base.

Figure 1

General Obligation Bonds Amortization Schedule
Pro Forma v. Prior to STSC Issuances
As of Feb 25, 2019



Total GO Principal Current (in $000)	7,114,240
Total GO Principal Prior to STSC Bonds (in $000)	6,311,586
2019 New Money GO Principal (in $000)	707,645

Source: City of Chicago

Chicago Pension Funds

City employees participate in one of four defined-benefit pension plans: (1) the Municipal Employees' Annuity and Benefit Fund of Chicago (MEABF) – covers most civil service employees of the City, and non-teacher employees of the Chicago Public Schools; (2) Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago (LABF) – covers employees who are members of certain unions; (3) Firemen's Annuity and Benefit Fund of Chicago (FABF) – covers City's sworn firefighters and paramedics; (4) Policemen's Annuity and Benefit Fund of Chicago (PABF) – covers City's sworn police officers, captains, lieutenants, and sergeants.

Each of the four funds is at present significantly underfunded. As of December 31, 2017, the net present liability of the four funds was $28.0 billion according to actuarial valuations. The funded ratios, on an actuarial basis, range from 20% for the FABF to 48% for the LABF.

In October 2015, the City Council approved a four-year property tax increase of $543 million solely to fund increases to the Police and Fire pension funds. The increased property taxes supported a ramp-up to actuarial funding. Full actuarial funding will commence in 2020, at which time police and fire pension funding will require a $279.7 million city increase over the 2019 contribution, according to the City's Annual Financial Analysis (Figure 2 & 3). In addition, for the MEABF and LABF funds, the City will switch to actuarially required contributions in 2022 ($310.2 increase over 2021) and has dedicated revenue streams (MEABF – water/sewer usage tax; LABF – monies freed by a 911 surcharge increase) to ramp-up funding amounts over five years. Police and fire is expected to reach 90% funding by levy year 2055, and MEABF and LABF are expected to reach this threshold by 2057. Prior to legislative changes enacted over the last several years, the City made contributions in an amount determined by a statutory funding formula, which required employer contributions in a multiple of the amount contributed by employees two years prior to the year in which the property tax used to generate the contribution was levied. This statutory formula did not change to allow for shifts in demographic factors, such as longer retiree lifespans, and did not recognize the effect of benefit enhancement – including automatic cost of living adjustments, and early retirement incentives which reduce contributions and increase benefit costs. Many years of non-actuarially based funding were compounded by economic downturns in 2000 and 2007-09 that sharply lowered investment returns and further reduced funded ratios. The City's workforce has declined in the past ten years, which has adversely affected contributions.

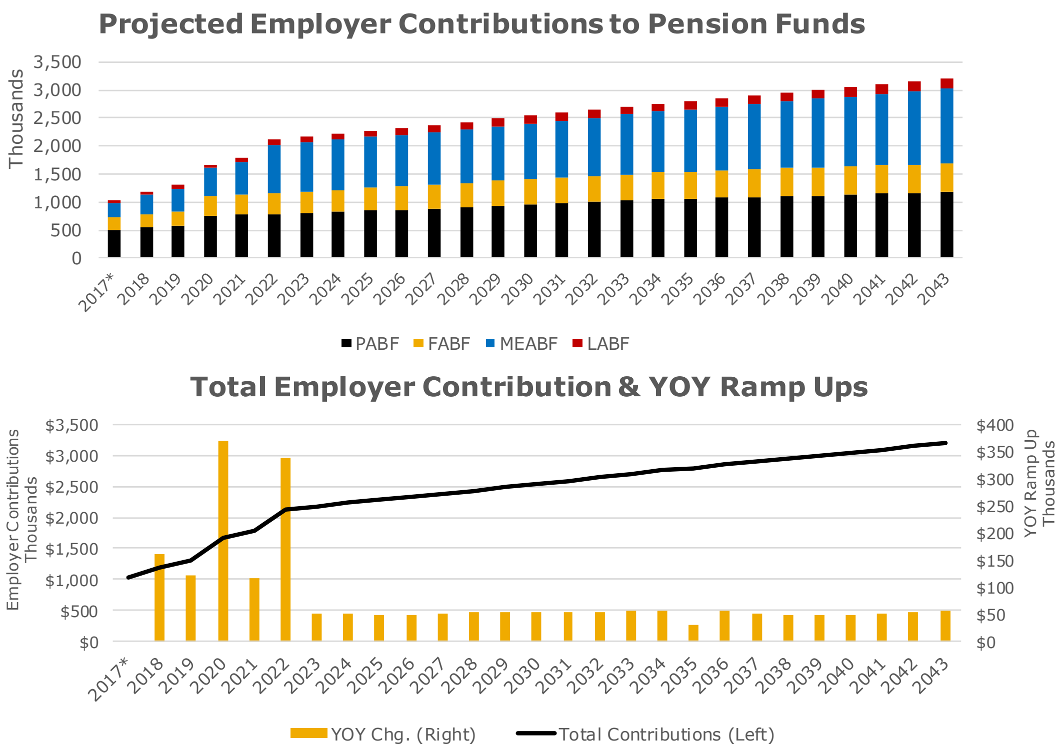
Figure 2

Dedicated Funding Sources for City of Chicago's Pension Funds

Fund	Funding Source	Statutory Funding Schedule
PABF & FABF	$543 million property tax increase begun in 2015	Funding ramp up to ARC by 2020, 90% funded target by 2055
MEABF	Municipal water and wastewater tax implemented in 2017	Funding ramp up to ARC by 2022, 90% funded target by 2057
LABF	911 surcharge increase allowing for increased Corporate Fund contribution	Funding ramp up to ARC by 2022, 90% funded target by 2057

Source: City of Chicago

Figure 3



Source: FY 2017 Actuarial Valuation Reports published by each perspective funds
* FY 2017 Budget Year for City of Chicago; Employer contributions pay to each pension funds in the following fiscal year as presented in pension fund actuarial reports

Capital Program

The City's capital improvement program (CIP) is a 5-year plan of projects that encompasses general City, water and sewer, and airport infrastructure and facilities. Funding comes from general obligation bond issues, revenue bond issuance (mainly water, sewer, and aviation improvements), state and federal funding, operating revenue and tax increment financing. A total of $8.7 billion of improvements is included in the 2018-22 program, including $3.7 billion related to general City purposes. The CIP anticipates $874 million of general obligation debt and other revenue. Transportation projects represent approximately $1.3 billion, and include bridge, viaducts, intersections and major streets, and transit, bicycle, pedestrian programs. The CIP is not part of the operating budget cycle, but City Council approval is required for most funding sources.

Based on the forgoing, KBRA affirms the outstanding BBB Rating Determinant rating for Debt and Continuing Obligations.

RD 3: Financial Performance and Liquidity

Pro-Active Financial Management

Notwithstanding the pension and debt service funding issues that represent significant fixed costs going forward, KBRA believes that the City's management team has been pro-active in implementing necessary measures to stabilize and improve financial operations. This follows a period characterized by structural budget deficits and the use of non-recurring sources in the prior administration. Progress has been made in matching operating revenues and expenditures, despite the cyclical nature of major Corporate Fund operating revenues, and notable pressures exerted by long-term obligations like pensions. Reforms and innovative approaches to confronting service delivery issues have resulted in savings. KBRA views positively management's efforts to stabilize reserves, which is underscored by the adopted budget stabilization policy in fiscal 2016 that requires maintenance of unrestricted fund balances in excess of two months of operating expenditures and does not appropriate more than one percent of the value of the annual corporate budget from the prior year's audited unassigned fund balance in the current year's budget. The Budget Stabilization Fund includes three sources of unrestricted fund balance, which reside in the Special Revenue and Corporate Funds: (1) Asset Lease and Concession Reserves ($668.3 million) – Chicago Skyway and metered parking system; (2) Operating Liquidity Fund ($20 million) – created in 2016, with a $10 million transfer of a portion of unassigned corporate fund balance planned for FY 2019; (3) unassigned fund balance. The unassigned fund balance has increased from $33.8 million (1.1% of General Fund expenditures) at FYE 2013 to $155.5 million (4.5% of General Fund expenditures) at year-end 2017. Budget Stabilization Fund resources approximate 23.8% of General Fund expenditures (Figure 4).

Figure 4

General Fund FY 2013-FY 2017

Revenues, Expenditures and Changes in Fund Balance (Modified Accrual Basis) ($'000)

	2017	2016	2015	2014	2013
General Fund Revenue	$3,559,459	$3,682,612	$3,466,635	$3,176,150	$3,030,491
percent change	-3.3%	6.2%	9.1%	4.8%	
General Fund Expenditures	$3,454,858	$3,473,208	$3,433,102	$3,231,258	$3,109,074
percent change	-0.5%	1.2%	6.2%	3.9%	
Surplus (Deficit) from Operations	104,601	209,404	33,533	(55,108)	(78,583)
Total Other Financing Sources (Uses)	($85,822)	($155,054)	$40,421	$29,329	$14,338
Net Change in Fund Balance	18,779	54,350	73,954	(25,779)	(64,245)
Total Fund Balance	$288,361	$269,582	$215,232	$141,278	$167,057
Nonspendable Fund Balance	$25,945	$23,730	$23,828	$24,498	$24,788
Spendable Fund Balance					
Restricted Fund Balance					
Assigned Fund Balance	$106,900	$92,115	$98,377	$65,223	$108,424
Committed Fund Balance					
Unassigned Fund Balance	$155,516	$153,737	$93,027	$51,557	$33,845
Unassigned Fund Balance as a % of General Fund Expenditures	**4.5%**	**4.4%**	**2.7%**	**1.6%**	**1.1%**

Source: City of Chicago Audited Financial Statements FY 2013 - FY 2017

Note that Corporate Fund is 99% of the General Fund

KBRA believes that the City's management team has made a number of significant financial and operational improvements. Financial reporting has been improved through the Annual Financial Analysis (AFA), a three-year forecast that evaluates financial performance, forms the framework for the subsequent year's operating budget and capital budget, and guides financial and operational decisions. Beginning with the 2012 budget, management began the practice of aligning revenues and expenses, and phased-out use of reserves derived from leased asset sales. Now only the interest earnings are used for operations. Practices prior to 2012 had largely drawn down Parking Meter balances, which originated from the long-term concession of the City's metered parking program ($1.15 billion). Significant amounts of these reserves had been used for operations, particularly in the 2009-2011 period. In 2012, the City faced a $635.7 million structural deficit, which had been reduced to a manageable $97.9 million when FY 2019 budget deliberations began. KBRA would view reduction of long-term reserves as a negative action with potential adverse rating implications.

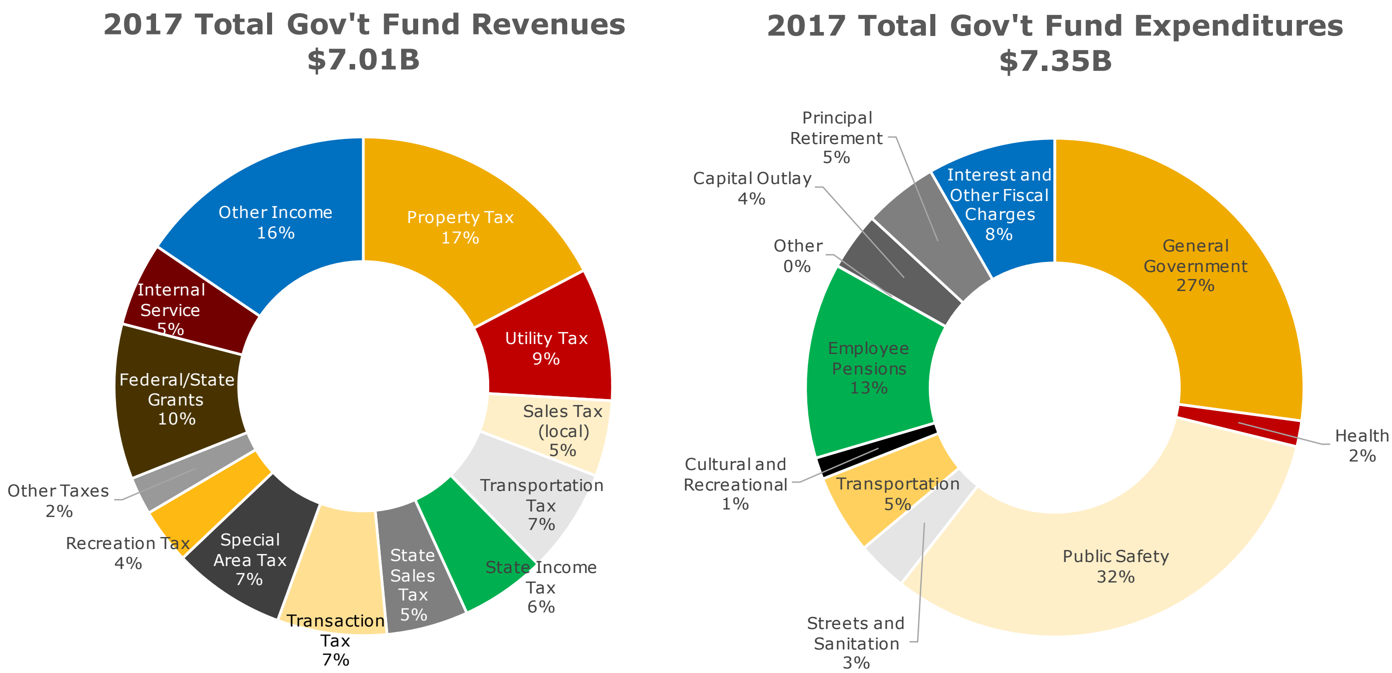
In KBRA's view, management has strived for greater efficiency, and sought innovative solutions to increasing expenditure pressures. Notable instances include a competitive bidding program for recycling services, a re-worked waste collection system, a process to evaluate and repurpose vacant positions, implementation of an employee wellness program, and workers' compensation reforms. Workers' compensation reforms, which contributed to savings, include a reassessment of the medical billing review process, increased investigations to prevent fraud, implementation of return-to-work programs for injured employees, more active case management, and initiatives to improve energy efficiency. The 2019 budget identified $73.7 million in General Fund savings and reforms in personnel and non-personnel expense.

Healthcare costs have remained relatively flat, abetted by the phase-out of retiree healthcare coverage for certain retirees.

Revenue and Expenditure Sources

Revenue sources are diverse (Figure 5), with property taxes at 17.3% of fiscal 2017 Total Governmental Fund revenues, the largest source. State and local sales taxes represent 10%. Utility taxes account for 8.6%, special area tax (tax increment) revenues represent 7.3%, transaction taxes represent 7.1%, while transportation and state income taxes contribute 6.8% and 5.5%, respectively. Total tax revenues represent 69.1% of Governmental Fund revenues. Federal/state grants are an additional 10.1%, while fines represent 5.2%, and internal service earnings are 5.5%. Expenditures are concentrated, with public safety (31.8%) and general government (27.1%) the largest components. City pension contributions totaled $931.6 million in fiscal year 2017, equivalent to 12.7% of expenditures, while OPEB contributions approximated $82.5 million, or 1.1% of expenditures. Debt service comprised 13.1% of expenditures in fiscal year 2017.

Figure 5



Source: City of Chicago, IL

Corporate Fund Operations

The City's Corporate Fund (99% of the General Fund), its general operating fund, supports an array of services and activities, including police and fire protection, emergency management, trash collection, and public health programs. Revenues are derived from various locally generated taxes, intergovernmental taxes, and non-tax revenue sources. These include local taxes, such as public utility taxes, transaction taxes, transportation taxes, recreation taxes, and business taxes. Intergovernmental taxes include sales and use taxes, the state income tax, and personal property replacement taxes. Non-tax sources include licenses and permit fees, fines, charges for services, leases and rentals, and internal service earnings – transfers to Corporate Fund for services provided to other City funds and agencies. The property tax is not used for general operations, but is instead a funding source for libraries, pensions, and debt service requirements.

Key Revenue Performance

Public utility taxes, which consist of telecommunications services, electricity, natural gas and cable television, currently constitute about 12% of Corporate Fund revenues. Revenues from these sources have ranged from $501 million in 2007, to $434 million in 2016. The year-end 2018 estimate for this source is $432.7 million. Electricity and natural gas are highly dependent upon weather conditions and price, and are also affected by technological change that impacts consumer behavior and energy use. Long-standing reductions in telecommunications taxes are due to a decline in the use of landlines, as more customers choose only wireless service. Telecommunication revenues have declined from

$154.5 million in fiscal 2007 to $101.9 million in fiscal 2017 and are estimated to have dropped further to $97.1 million in fiscal 2018. Electricity tax revenues have declined modestly over that period from $197 million to an estimated $188.2 million. During fiscal year 2008, natural gas prices were historically high, and city revenues reached $153.2 million. It has since been reduced to $124.7 million in 2017 and an estimated $119 million in FY 2018 due to variations in price and weather.

Transaction taxes include real property transfer tax, personal property lease transaction tax, and short-term lease of motor vehicles and comprised 11.6% of Corporate Fund revenues in FY 2017. Real property transfer taxes track the economy and real estate market and have grown significantly in recent years as the housing market strengthened and commercial real estate activity expanded. Real property transfer taxes reached $242.3 million in 2006 and declined to $61.9 million in 2009 during the height of the recession. The real estate market did not exhibit significant growth until 2012. In subsequent years there were multiple large property transfers that contributed to transfer tax revenues, including the Aon Center and Willis Tower in 2015, and the Chicago Skyway and Millennium Park Garages in 2016. The 2018 year-end estimate for transaction taxes is 4.4% above the budgeted $422.6 million amount, reflecting the strength of the real estate market, business growth, and improved compliance with business tax ordinances.

Transportation taxes accounted totaled $275.0 million and accounted for 7.4% of Corporate Fund revenues in FY 2017, and include taxes on vehicle fuel, parking facilities and ground transportation. The year-end 2018 estimate is $310.8 million Revenues have grown in recent years due to changes in taxes applicable to the rideshare industry and strong growth, along with parking garage tax rate changes. Ground transportation taxes are expected to total $125 million, which is a $16 million increase over projection made in the summer of 2017, with the bulk of the increase attributable to the rideshare industry.

Intergovernmental tax revenues consist of the City's share of the Illinois state sales and use taxes, income tax, and the personal property replacement tax. The City's share of the state sales tax is supplemented by a 1.25% home rule sales tax. The total Chicago sales tax is 10.25%, and had been the single largest revenue source in the Corporate Fund. The City has sold to the Sales Tax Securitization Corporation (STSC) the City's right to receive sales tax revenues collected by the State. Sales tax revenues will be used to meet debt service requirements are STSC Bonds, with residual amounts remitted by the STSC and recorded in the Corporate Fund as proceeds and transfers in.

Income tax revenues have followed an irregular pattern. Growth was recorded in pre-recession years, followed by declines in the years after 2008. From 2004 to 2007, income tax revenues grew an average of 10% per year and reached $268.8 million in 2008. Revenues declined by 25.5% to $201 million in 2009. While there was a rebound in 2010, revenues decreased again in 2011 due to continued high unemployment rates (peak of 11.3%), the decline in population reflected in the 2010 census, and a delay in state distributions. Beginning in the second half of 2011, income tax revenue performance, closely reflected improvement in the overall economy, and reached a peak of $286.5 million. Since then, individual income tax receipts have declined, due to more limited capital gains, and contracting corporate income tax receipts, despite recent employment and wage gains. Income tax revenue is expected to end FY 2018 at $252.2 million and increase in 2019 to $260.2 million due to economic growth and federal tax law changes.

Personnel Spending

Public safety represents the largest component of Corporate Fund spending (67.5%), comprised of police services representing 67.2%, the fire department 26.0%, and the Office of Emergency Management and Communications 4.6%. Corporate Fund expenditures for City services had remained relatively stable between 2007 and 2014, but in recent years expenses have increased due to investments in public safety and community service programs. Over the past ten years, the City workforce has declined from 40,108 budgeted full-time equivalents (FTEs) in 2008 to 36,232 budgeted FTEs in 2018. Despite the overall workforce reductions, the 2017 and 2018 budgets increased the number of FTEs by a total of 4.0%, mainly due to the addition of 970 sworn police officer positions, divided evenly between the two years. Personnel-related expenditures are the largest component of Corporate Fund spending. Spending on personnel approximates 80% of Corporate Fund expenditures, including healthcare expenses. It is notable that healthcare costs have been largely contained. Since 2011, budgeted healthcare costs have decreased by almost $33 million due to on-going cost control measures.

Over ninety percent of City positions are represented by unions. The City enters into collective bargaining agreements with 40 different unions. The two largest bargaining units are the Fraternal Order of Police (FOP) and the Coalition of Union Public Employees (COUPE), which represents trades positions. Other large bargaining groups are the firefighters, the American Federation of State, County, and the American Federation of State, County and Municipal Employees (AFSCME) and the Service Employees International Union. Contracts are in place with COUPE and AFSCME for the 2017-2022 period, providing for average annual wage increases of 2.1%, reduction in the City share healthcare contributions, and increased work rule flexibility for the City. Collective bargaining agreements for Police, Fire and SEIU have expired and negotiations are ongoing for new contracts. The old agreements remain in effect until new agreements are signed.

Fiscal Year 2018 Projections

An approximate $20.2 million surplus is projected in the Corporate Fund for FY 2018 on a budgetary basis. Total Corporate Fund resources are forecast to grow by 1.6% over the prior year actual results. Transaction tax revenues (real property transfer tax, personal property lease transaction tax, and short-term lease of motor vehicles) are 4.4% higher than originally budgeted, even though real property transfer tax collections are 2.4% below budget. The latter reduction is offset by personal property lease transaction revenues, which are 9.2% above budget due to growth across various business sectors. State income tax revenues are expected to end the year at the budgeted FY 2018 level, or $12.6 million (5.3%) over FY 2017 receipts. Personal property replacement revenues have performed better than originally forecast partially reflecting increased corporate profits from 2017 federal tax reform, which help offset additional diversions of PPRT included in the State's FY 2019 budget, which impacts PPRT revenues in the second half of 2018 and the first half of 2019. Ground transportation and amusement taxes are expected to meet original budget estimates. Beginning on January 1, 2018, the tax applied to rides provided by transportation network providers increased by $0.15 to $0.55, which is expected to generate $16.0 million in additional revenue which the City is providing annually to the Chicago Transit Authority.

Non-tax revenues are expected to end the year within 1.0% of the budgeted level. Decreases in other non-tax revenue sources are offset by increased fines, forfeitures and penalty collections. Increases in these sources is attributed to improved enforcement as collections are expected to exceed the $326 million budgeted by almost 5%.

Corporate Fund expenditures are expected to end FY 2018 slightly below the budgeted $3.78 billion. The projection reflects lower than expected personnel-related expenditures. Salary and wage savings through normal position turnover, and lower than budgeted healthcare costs due to pharmaceutical rebates, increased utilization of generic drugs and lower enrollment.

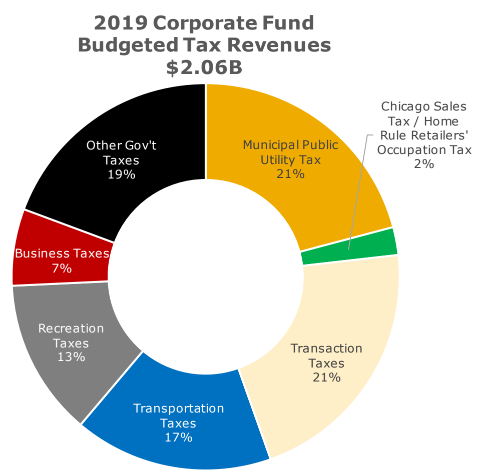
Fiscal Year 2019 Budget

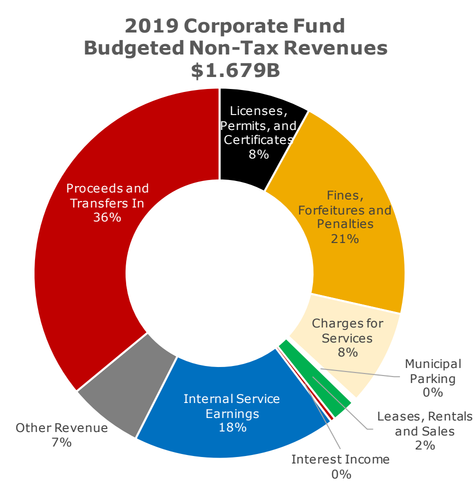
The City's FY 2019 budget was approved by the City Council on November 14, 2018 following a 48-1 vote. Total Corporate Fund revenue of the City is estimated at $3.74 billion in FY 2019, with over 55% of revenues generated from various taxes and 45% from non-tax sources (Figure 6). The budget proposes Corporate Fund spending of $3.81 billion, less than 1% higher than the 2018 budget demonstrating fiscal restraint. The budget closes a preliminary $97.9 million Corporate Fund budget gap and provides $113.8 million in additional investments through a combination of expenditure reductions and revenue enhancements. These include personnel and non-personnel cost savings and reforms ($73.7 million); improved fiscal management ($73.5 million), which includes debt service savings, sweeping aging revenue accounts, and TIF surplus and value capture; Improved cost recovery and charges for services ($26.5 million); Public Safety Investment Fund ($38 million) and deposits an additional $10 million into the Operating Liquidity Fund.

The Corporate Fund budget relies on $76 million, evenly divided from prior year assigned and unassigned General Fund balance. The City maintains a policy of not appropriating more than 1% of the value of the annual Corporate Fund budget from the prior year's unassigned fund balance. The budget contains no new taxes or fees, but does not provide funding for ongoing police and fire labor negotiations. However, it does provide increased funding for settlements and judgments and first-year funding for a draft police consent decree

The budget proposes to increase Corporate Fund spending by $24.5 million or 0.6% over the prior year.

Figure 6





Source: City of Chicago, IL

Based on the foregoing, KBRA has affirmed the A+ Rating Determinant rating assigned to Financial Performance and Liquidity.

RD 4: Municipal Resource Base

Chicago is the largest city in the Midwest and the third largest city in the United States by population. The City has a population of over 2.7 million including roughly 1.0 million households. Population growth has been relatively stable for the last six years, with a mix of small increases and small declines.

The City is the county seat for Cook County and a regional hub for commerce and culture. The Chicago-Joliet-Naperville MSA is home to over 400 corporate headquarters, including 33 in the Fortune 500, and more than 60 post-secondary education institutions. KBRA notes that Chicago exhibits characteristics of an important world business center and houses one of the world's largest and most diversified economies. The City is ranked number eight on A.T. Kearney's Global Cities Index 2018 based on business activity, human capital, information exchange, cultural experience, and political engagement. The City is the second largest financial center in the U.S. and accounts for 17% of the world's global derivatives trading and half of the exchange-based derivatives trading in North America.

The City has a very diverse employment base that is not concentrated in any single sector or employer. The top ten employers in FY 2017 represent only 10.8% of total city employment and are not in cyclical industries (Figure 7). The City's employment base is attractive to employers with over 38% of the population having a B.A. degree or higher which is above the comparable state and national levels. And despite the severity of the Great Recession, Chicago's employment has returned to above its pre-recession levels in 2016 (Figure 8). KBRA expects the City's existing employment base, higher education facilities, and cultural attractions will continue to attract and retain a highly skilled workforce.

Figure 7

Top Employers of City of Chicago

Company	Sector	# of Employees	Employees as % of Total Employments
Advocate Health Care	Health Care	19,049	1.5%
Northwestern Memorial Healthcare	Health Care	16,667	1.3%
University of Chicago	Higher Education	16,583	1.3%
JPMorgan Chase & Co.	Finance	15,701	1.2%
Amazon.com Inc.	E-Commerce	13,240	1.0%
United Continental Holdings Inc.	Airline	12,994	1.0%
Walgreens Boots Alliance Inc.	Pharmaceutical / Retail	12,751	1.0%
Northwestern University	Higher Education	10,847	0.8%
Presence Health	Health Care	10,225	0.8%
Wal-mart Stores Inc.	Retail	10,220	0.8%
Total		138,277	10.8%
	Total Employment 2017	1,289,325	

Source: City of Chicago

Figure 8

Employment (Not Seasonally Adjusted)

Year	Chicago	% Chg	Cook County	% Chg	Illinois	% Chg	U.S ('000)	% Chg
2005	1,194,716		2,384,929		6,033,913		141,730	
2006	1,222,410	2.32%	2,441,887	2.39%	6,230,845	3.26%	144,427	1.90%
2007	1,242,947	1.68%	2,478,215	1.49%	6,334,010	1.66%	146,047	1.12%
2008	1,230,895	-0.97%	2,447,178	-1.25%	6,238,611	-1.51%	145,373	-0.46%
2009	**1,174,107**	-4.61%	**2,330,033**	-4.79%	5,943,229	-4.73%	139,894	-3.77%
2010	1,206,243	2.74%	2,356,472	1.13%	**5,937,047**	-0.10%	**139,077**	-0.58%
2011	1,208,381	0.18%	2,360,934	0.19%	5,948,366	0.19%	139,885	0.58%
2012	1,227,514	1.58%	2,397,792	1.56%	5,990,644	0.71%	142,475	1.85%
2013	1,235,848	0.68%	2,414,722	0.71%	5,956,749	-0.57%	143,941	1.03%
2014	1,256,824	1.70%	2,455,149	1.67%	6,047,243	1.52%	146,317	1.65%
2015	1,272,985	1.29%	2,484,494	1.20%	6,119,271	1.19%	148,845	1.73%
2016	1,285,806	1.01%	2,507,250	0.92%	6,169,560	0.82%	151,440	1.74%
2017	1,289,325	0.27%	2,514,113	0.27%	6,170,546	0.02%	153,338	1.25%
2018	1,287,319	-0.16%	2,510,200	-0.16%	6,191,319	0.34%	155,764	1.58%
Growth Since Low	113,212	9.64%	180,167	7.73%	254,272	4.28%	15,870	12.00%

Soucre: U.S. Bureau of Labor Statistics
Note: Lowest values over this period are in bold

Chicago's wealth levels are also strong, with income per capita growing 33.6% from 2010 to 2017, higher than both the State and the U.S. Poverty level improved by almost 4% from 2010, it is considered high but is consistent with other large urban centers (Figure 9). Figure 10 shows how Chicago's demographic profile compares to the largest cities in Illinois and it is consistent with the trend observed.

Figure 9

	2017 Population	Chg from 2010	2017 Age Dependency Ratio[1,2]	Chg from 2010	2017 Population with B.A. Degree or higher[2]	Chg from 2010	2017 Poverty Level[2]	Chg from 2010	2017 Income per capita	Chg from 2010
City of Chicago	2,716,450	0.7%	49.2%	-1.0	38.8%	5.5	18.6%	-3.9	$34,269	33.6%
Cook County	5,211,263	0.2%	56.9%	1.5	38.6%	4.7	14.4%	-2.3	$35,172	26.3%
Illinois	12,802,023	-0.3%	60.8%	2.3	34.4%	3.6	12.6%	-1.2	$34,196	25.1%
United States	325,719,178	5.3%	61.9%	3.0	32.0%	3.8	13.4%	-1.9	$32,397	24.3%
City of Chicago as % of Cook County	**n/a**		**86.5%**		**100.5%**		**129.2%**		**97.4%**	
City of Chicago as % of Illinois	**n/a**		**80.9%**		**112.8%**		**147.6%**		**100.2%**	
City of Chicago as % of United States	**n/a**		**79.6%**		**121.3%**		**138.8%**		**105.8%**	

Source: U.S. Census Bureau is used as the source in order to provide a consistent comparison among different units of government.

[1] Age dependency ratio is the sum of the population under 18 yrs and over 65 yrs divided by persons age 18 to 64 yrs.

[2] Year over year change shown as nominal change in percentage points.

Figure 10

Demographic Profiles of Largest Cities in Illinois							
					Unemployment Rate		
City	**County**	**Population**	**Per Capita Income**	**Poverty Rate**	**2016**	**2017**	**2018**
Chicago	Cook	2,704,965	$33,122	19.1%	6.5%	5.5%	4.4%
Aurora	Du Page	197,107	$29,179	12.3%	5.5%	4.7%	4.2%
Naperville	Du Page	148,063	$49,929	4.1%	4.6%	4.0%	3.1%
Rockford	Winnebago	147,404	$24,034	22.6%	7.7%	7.5%	6.4%
Joliet	Will	146,410	$25,968	11.0%	7.4%	6.3%	5.2%
Peoria	Peoria	115,588	$28,475	19.8%	6.9%	5.9%	5.4%
Springfield	Sangamon	115,511	$30,784	18.5%	5.2%	4.5%	4.3%
Elgin	Cook	114,521	$26,791	14.9%	6.5%	5.5%	5.1%

Source: U.S Census | Bureau of Labor Statistics

Among the factors helping to drive retail sales activity is the City's role as a major transportation and tourism hub. Chicago O'Hare International Airport is the third busiest airport in the U.S. Together with the City's Midway Airport, the airport system served over 51 million passengers in 2017. In addition, Chicago set another record high number of 55 million visitors in 2017. The City is on target to meet its goal of attracting 55 million visitors annually by 2020.

Hotel room nights increased by 15% in the past five years or almost 4% YOY increase from 2016. Daily room rates show over 6% increase over the last five years. Hotel tax revenue hit a record high in 2017 at almost $129 million (Figure 11).

Figure 11

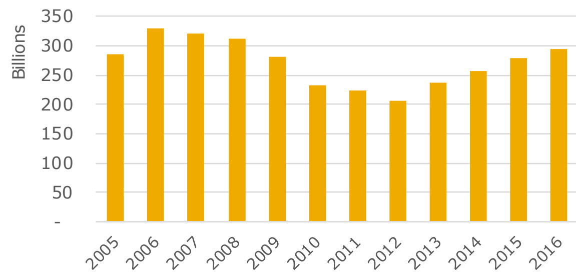
Chicago Central Business District Historic Hotel Performance and Visitor Trends							
	Total Hotel Room Nights	**Average Hotel Occupancy Rate (%)**	**Average Daily Rate ($)**	**Chicago Hotel Tax Revenue ($)**	**Total Domestic Visitor (millions)**	**Total Overseas Visitor (millions)**	**Total Visitor (millions)**
2013	13,192,467	75.3%	191.82	106,304,670	46.96	1.38	48.34
2014	13,534,515	75.7%	198.76	113,592,474	48.71	1.33	50.04
2015	14,065,836	75.6%	207.73	123,935,112	50.97	1.62	52.59
2016	14,600,000	75.2%	207.78	127,277,919	52.35	1.47	53.82
2017	**15,177,353**	74.8%	**203.68**	**128,952,875**	n/a	n/a	**55.00**
% Change 2017 vs 2012	15.0%	-0.7%	6.2%	21.3%			13.8%

Source: Choose Chicago

Bolded values indicate a record for the City

Along with rising employment and income data, other signs of Chicago's rebound from the Great Recession include its residential and commercial property values. Total full market value (FMV) declined sharply in the Great Recession and experienced declines between 2008 and 2013. Since then FMV has stabilized and is recovering steadily (Figure 12).

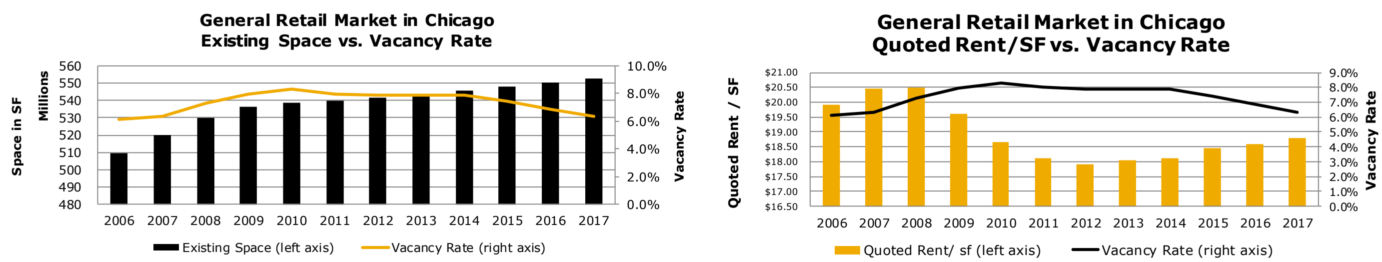
Figure 12



Source: City of Chicago 2017 CAFR

Recent downtown developments are expected to provide further positive momentum for the Chicago's tax base. Meanwhile, KBRA notes that general retail and office markets in Chicago are healthy with both rentable space and vacancy rates experiencing positive trends. For the first two quarters in 2018, vacancy rates in the general retail market are the lowest of the past decade. As a result of increased demand for retail space, per square foot (SF) rent shows healthy annual growth YOY since 2012 (Figure 13).

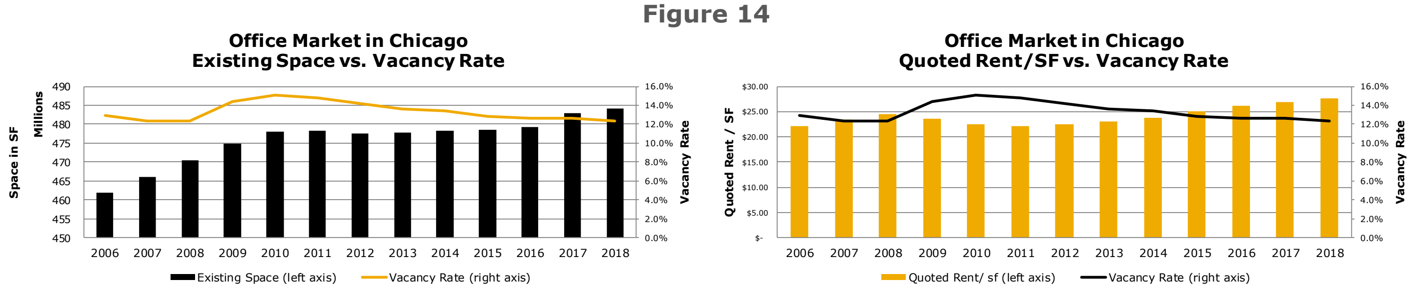
Figure 13



Source: CoStar Property

KBRA notes that continued growth in commercial activity is important and essential to provide a healthy environment for sales activities. According to CoStar, Chicago office vacancy rates have also improved since the Great Recession. And, according to the City, downtown office vacancy rates are at a 15-year low. According to CoStar, quoted office rent rates have recovered and exceeded the pre-recession peak (Figure 14).

Figure 14



Source: CoStar Property

Determinant Summary

Based on the foregoing, KBRA believes the City's municipal resource base is consistent with a AA Rating Determinant rating.

Conclusion

Kroll Bond Rating Agency has assigned a A rating with a Stable Outlook to the City of Chicago General Obligation Bonds Series 2019A.

City of Chicago, Illinois

General Obligation Bonds,
Project and Refunding Series 2017A
Taxable Project Series 2017B

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December 19, 2016

Table of Contents

Executive Summary

Kroll Bond Rating Agency (KBRA) has **assigned** a long-term rating of **BBB+** with a **Stable outlook** to the City of Chicago General Obligation Bonds - Project and Refunding, Series 2017A, and Taxable Project Series, 2017B. KBRA also **affirms** the long-term rating of **BBB+**, and has revised the outlook from **Negative to Stable,** on the City's outstanding General Obligation Bonds, reflecting identification and dedication of permanent revenue sources to address its severely underfunded pensions.

This rating is based on KBRA's **U.S. Local Government General Obligation Rating Methodology.** For further information and a full discussion of the Key Rating Determinants, please view the report **City of Chicago General Obligation Bonds** published on March 24, 2015. In the process of assigning the rating, KBRA reviewed multiple sources of information, and met with City management.

Security

The Bonds are direct and general obligations of the City and are payable as to principal and interest from any moneys, revenues, receipts, income, assets or funds of the City legally available for such purpose, including, but not limited to, the proceeds of direct annual tax levied by the City in the Bond Ordinance upon all taxable property located in the City sufficient to pay principal and interest on the Bonds. The Bonds are secured by the City's full faith and credit pledge without limitation as to rate or amount.

Use of Proceeds

Proceeds of the sale of the Series 2017A and B Bonds will be used to finance projects contained within the City's capital plan, restructure near-term debt maturities ("scoop and toss"), fund settlements and judgments, and refund a small amount of outstanding debt to achieve debt service savings. The Bonds will mature in 2037.

Key Rating Strengths
• Effective management team has improved the stability of financial operations by reducing reliance on non-recurring revenues, and enhanced the City's budgeting, forecasting and operational policies.
• City's substantial tax base and deep and diverse economic base commensurate with its position as the nation's third largest city, and role of regional center for a large surrounding area.
• Ample available reserve balances supplement a narrow Corporate Fund reserve and liquidity position. City management is making progress in achieving structural balance.
• Home rule authority confers significant additional operational flexibility as demonstrated by recent adoption of a large increase in the property tax levy for police and fire pensions.

Key Rating Concerns
• Although the City has identified revenue sources for each of the four pension plans as it ramps up to actuarial funding, budgetary stresses are likely to persist. High debt levels and borrowing needs, increasing public safety expenditures, and long-term pension funding issues will all exert pressure going forward.
• Need to identify significant long-term funding sources as pension funds transition to an actuarial schedule.
• Continued reliance on economically sensitive revenue sources to fund operations.
• Moderate to high City debt levels, slow bond amortization with "scoop and toss" debt restructurings to augment operating resources. Significant debt issuance by overlapping jurisdictions, some of which also have pension funding challenges. Administration intends to end "scoop and toss" by 2019.

Rating Summary

Governance and Management Structure and Policies

KBRA believes that the City of Chicago's management team has made significant progress toward achieving structural balance through greater efficiencies and reduced reliance on non-recurring sources in the period after 2011. A commitment to raising revenues and controlling expenses has been demonstrated. City government priorities and activities are established in the budget ordinance usually adopted in November of each year, following submission by the Mayor. In addition, the City as part of its long-term financial planning, publishes the Annual Financial Analysis (AFA) by July 31 of each year. This report evaluates the City's financial performance, including a historical analysis of the City's revenues and expenditures, a financial forecast and analyses of the City's reserves, capital program, debt and pensions. For fiscal year 2017, The AFA identified a structural deficit of $137.6 million, which while large, is significantly smaller than the $637.7 million identified 2012 budget gap. Besides aligning revenues and expenditures, and reducing reliance on non-recurring sources, the Administration has sought greater efficiency and innovative solutions to rising expenditure pressures. During fiscal year 2016, the City enacted a fiscal stabilization policy that requires an unrestricted budgetary fund balance of no less than two months operating expenses. Asset Lease and Concession Reserves, Operating Liquidity Fund and unassigned General Fund balance are the three sources of unrestricted fund balance, and are referred to collectively as Fund Stabilization. These sources currently total more than $715 million.

Favorable progress has also been made in addressing the City's significantly underfunded four single-payer defined benefit pension funds. Overcoming adverse court decisions, City officials effectively worked with labor unions and Illinois General Assembly membership to identify and dedicate permanent revenue streams for its pension funds (property tax increase, water-sewer tax, 911 surcharge). Furthermore, in May 2016, the City sought and the General Assembly approved, despite the Governor's veto, a slower than originally authorized ramp-up in the property tax levy to fund Police and Fire pensions. Notwithstanding these positive developments, necessary legislation to revise employer funding of the Municipal Employees and Laborers Pension Funds, (the two non-uniform funds) remains to be passed at the State level, and is not expected to be taken up until early January. KBRA views the adoption of these measures favorably, as they establish a roadmap to pension fund solvency. However, our optimism is somewhat tempered by the fact that substantial additional revenue enhancements and expenditure reductions will have to be identified once an actuarial funding schedule begins - 2021 for Municipal/Laborers, and 2023 for Police/Fire, particularly if actuarial assumptions do not prove out. While there is time for these deliberations, the magnitude of necessary increases may require an even higher level of political will than was demonstrated in the identification and dedication of sources for the ramp-up funding. The total unfunded actuarial accrued liability of the four pension funds was $23 billion at year-end 2015.

The contributing factors to this large unfunded liability are complex and interwoven. Under the Illinois Pension Code, pension contributions were state-mandated; the City had no input into contribution levels. Both benefit levels and funding were set by State law. A static statutorily-required formula, rather than an actuarially-based formula, that does not adjust for changes in investment returns, the changing demographics of retiring employees, or benefit enhancements, including automatic cost of living adjustments, all contributed to this complexity. These funding issues were compounded by economic downturns in 2000 and 2007-2009, which sharply reduced funded ratios.

The City is also in the process of phasing out health care subsidies for most retirees, which is now being litigated in the Illinois Appellate Court and the Illinois Supreme Court. The estimated savings from the phase-out effective December 31, 2016 is approximately $100 million in 2017, and would likely grow in subsequent years given healthcare premium inflation. KBRA believes that an unfavorable disposition may contribute to elevated budgetary pressures.

Bankruptcy Assessment

KBRA has consulted with external counsel regarding the statutory framework regarding municipal bankruptcy in the State of Illinois. KBRA understands that the City is established as a political subdivision by Illinois statute. As such an entity, it meets the definition of a municipality under Chapter 9 of the U.S. Bankruptcy Code. State law does not currently permit municipalities in the State to file for protection under the U.S. Bankruptcy Code, except in accordance with the provisions of the Local Government Financial Planning and Supervision Act (the "Act"). 50 ILCS 320/1. Under the Act, applicable only to units of local government that have a population under 25,000, a financial planning and supervision commission has the power to recommend to a unit of local government that the unit file a petition under Chapter 9 of the U.S. Bankruptcy Code and submit this recommendation to the State. 50 ILCS 320/9(b)(4). State law, however, does not currently include any provisions specifically authorizing any municipal entity other than the Illinois Power Agency to file a bankruptcy petition. Further, it is KBRA's understanding that the existing broad grant of home rule powers to home rule municipalities such as Chicago, under the Illinois Constitution and other Illinois law, are unlikely to satisfy the standard for specific authorization required to permit the City to file for protection under the U.S. Bankruptcy Code. However, it is possible that the State of Illinois may in the future permit municipalities such as the City of Chicago to file for bankruptcy relief, and a bill that would grant such authority has been introduced from time to time in the General Assembly.

Municipal Resource Base

KBRA views the City's municipal resource base as strong and diversified. Chicago is the third most populous city in the U.S., and a regionally important hub for the Midwest. It is home to more than 400 corporate headquarters, numerous Fortune 500 companies, 650 companies that have either expanded or relocated, and in excess of 60 post-secondary institutions. Although the City experienced significant employment losses during the 2007-09 recession, the economic recovery continues. The employment base is well diversified across industry sectors; with no one sector representing a disproportionate share of total employment. Chicago is also a significant convention and tourist destination. Cultural institutions flourish, with 35 museums and 200 theater companies. Total visitors exceeded 50 million for the first time during 2014. The City has a large park system, and extensive mass transportation network for both intra-city and suburb-city commuter travel.

Population had declined somewhat through 2010, but appears to have stabilized, with modest increases reported in recent years. In 2015, the City's population was 2.72 million. The population evidences high educational attainment, with 36.6% having a bachelors' or advanced degree. City unemployment peaked in 2010 at 11.7%, which was well above pre-recession levels but consistent with State and national trends. Figures for September 2016 show unemployment at 5.9%, compared with the 2015 annual unemployment rate of 6.0%.

Direct and Overlapping Debt

In KBRA's view, the City's overall debt levels, including overlapping jurisdictions are moderate in relation to full property valuation, and high on a per capita basis. The debt burden is approximately 8.4%, and debt per capita approximates $7,920. Direct debt represents approximately 48% of overall debt. General obligation debt increased substantially over the past ten years, as the City issued more than $3 billion (including the current offering) of bonds to fund its capital program. All of the outstanding City long-term general obligation debt is now in the form of fixed rate obligations, as the City converted all of its outstanding variable rate general obligation and sales tax revenue bonds to fixed rate in 2015, and terminated remaining associated interest rate swaps. KBRA believes these actions improve the City's debt structure by removing remaining bank-related risks from the general obligation profile. The City has used its Short-Term Borrowing Program for working capital in anticipation of receipts of other revenue and to fund capital projects, but has also used this source for non-capital expenditures such as settlements and judgments, and retroactive payment of employment salaries and wages, which are typically repaid from proceeds of later issuances of general obligation bonds or other revenue sources. The City intends to move to greater reliance on funding such costs on a current basis, and eliminate "scoop and toss" debt restructurings by 2019. The outstanding balance of short-term borrowing presently approximates $7 million (borrowing authority up to $510 million), and has entered into Revolving Line of Credit Agreements with three banks. During fiscal year 2016, the City reduced its line of credit from $900 million to $510 million in recognition of improved liquidity.

Overlapping jurisdictions, particularly Chicago Public Schools and Cook County, have pension challenges of their own. These entities in conjunction with the State of Illinois are seeking to formulate solutions, some of which may impact Chicago taxpayers. In KBRA's view, City of Chicago taxpayers, who already pay high sales taxes, will likely experience other tax increases to address the funding inadequacy of multiple layers of government. In KBRA's estimation, pension funding now represents and will persist as a significant contingent liability for both the City and its overlapping jurisdictions. The Chicago Public Schools is a non-home rule unit of government, which means its ability to increase its operating levy, is limited by the Property Tax Extension Limitation Law. KBRA sees available options as limited to shifting resources from operations, or some form of assistance from the State. Cook County also has large unfunded pension liabilities. While the degree of underfunding is less severe than the City's, concerns over meeting these obligations was among the reasons for the adoption of a 1% increase in the County home rule sales tax, effective January 1, 2016.

Financial Operations

Notwithstanding the pension issues and their impact on operations, KBRA believes that the City's management team has made a number of significant financial and operational improvements since 2011. Financial reporting has been improved through the Annual Financial Analysis (AFA), a three-year forecast that evaluates financial performance, forms the framework for the subsequent year's operating budget and capital budget, and guides financial and operational decisions. This report is the result of a 2011 Executive Order. Beginning with the 2012 budget, management began the practice of aligning revenues and expenses, and phased-out use of reserves derived from leased asset sales. Also noted is the adoption of a policy setting minimums for unencumbered reserves, adopted during fiscal year 2016.

The Service Concession and Reserve Fund, a long-term reserve established by ordinance totaled $625 million at year-end 2015, and has been added to in recent years. Only the interest earnings are used for operations. Practices prior to 2012 had largely drawn down Parking Meter balances, which originated from the long-term concession of the City's metered parking program ($1.15 billion). Significant amounts of these reserves had been used for operations, particularly in the 2009-2011 period. Further use of non-recurring sources for operations during this period included $80 million from a $126 million security deposit for the unconsummated long-term lease of Midway Airport.

In KBRA's view, management has strived for greater efficiency, and sought innovative solutions to increasing expenditure pressures. Notable instances include a competitive bidding program for recycling services, a re-worked waste collection system, a process to evaluate vacant positions, implementation of an employee wellness program, and workers' compensation reforms. Workers' compensation reforms, which contributed to savings, include a reassessment of the medical billing review process, increased investigations to prevent fraud, implementation of return-to-work programs for injured employees, and more active case management.

City financial operations are characterized by a reliance on economically sensitive revenue sources. The adverse impact of 2007-09 recession resulted in liberal use of the Parking Meter long-term reserve fund to subsidize the City's operating budget, in lieu of expenditure reduction or revenue enhancement decisions. The reserves were established from long-term asset leases, and were drawn down considerably in the 2009-11 period. Beginning in 2011, progress toward structural balance began. In 2012, the City amended its ordinance to restrict transfers to interest earnings only. The City also began to rebuild these balances, with $20 million, $15 million deposits, in fiscal years 2012 and 2013, respectively, and $5 million deposits in fiscal years 2014 and 2015. Currently, the reserve funds held $625 million, which exceeds 18% of General Fund expenditures. Revenue increases and expenditure containment have led to growth in unassigned General Fund balance from $33.8 million at fiscal year-end 2013 to $93 million at year-end 2015, equivalent to a still narrow 2.7% of General Fund expenditures. In KBRA's opinion, the City continues to rely on economically vulnerable sources, which may result in the erosion of reserves in the absence of difficult revenue enhancement or expenditure reduction decisions. KBRA would view further reduction of reserves as a negative action with potential negative rating implications.

Fiscal Year 2016 Projections

An approximate $22.8 million surplus is projected in the Corporate Fund (99% of the General Fund) for FY 2016 on a budgetary basis. Total Corporate Fund resources are forecast to grow by 1.9% over the prior year. This includes a 3.2% increase in local tax revenue increases (utility taxes, transaction taxes, fuel, garage parking, ground transportation, and certain recreation and business activities) and a 3.8% decline in local non-tax revenues (licenses and permits; fines, forfeitures and penalties; fees for services; leases, rentals and sales; interest; and other revenue) due to a reduction in building permit fee revenues, and lower collections from fines, forfeitures and penalties. Intergovernmental revenue (state sales and use taxes, income tax, and personal property replacement tax (PPRT)) performance is not comparable with the prior year since PPRTs were not fully accounted for in the Corporate Fund in prior years. The City's 2016 budget originally anticipated $170.4 million in PPRT revenue, but the City now estimates this revenue source at $140.2 million. The reduction reflects correction of a classification of income tax as PPRT by the Illinois Department of Revenue. Corporate Fund expenditures are currently expected to end the year at 1% below the budgeted level. Contributing factors are lower fuel costs due to hedging and favorable market prices. Contractual expenses are down slightly compared to budget as a result of general savings. The mild winter, and consequent reduction in salt purchases are projected to result in lower than budgeted commodity and material expenses.

Fiscal Year 2017 Budget

The City's FY 2017 budget was unanimously approved by the City Council on November 16, 2016. The budget closes a preliminary $137.6 million Corporate Fund budget gap by expenditure cuts and governmental reforms ($33.7 million); improved fiscal management ($86.4 million), which includes sweeping aging revenue accounts, and TIF surplus capture; improved debt collections and loophole closure ($17 million); growth in economically sensitive and other revenues ($82.3 million); revenue enhancements ($25.4 million); and $37 million from prior year unassigned General Fund balance. The City has adopted a policy of not appropriating more than 1% of the value of the annual Corporate Fund budget from the prior year's unassigned fund balance. In addition, the budget provides $63 million in additional revenue for debt service as the City works toward elimination of "scoop and toss borrowing" in 2019, and $81 million in new investments.

The budget proposes to increase spending by 4.2% over the prior year mainly reflecting labor costs increases tied to collective bargaining agreements that expire at year-end 2017. A key initiative is a 970 position increase in the number of police personnel over the next two years.

Based on review of the four KBRA Rating Determinants included in the KBRA Methodology for rating U.S. Local Government General Obligation Bonds, KBRA has affirmed the outstanding rating assigned to each Determinant, which is summarized as follows:

- Governance and Management Structure and Policies: AA
- Municipal Resource or Economic Base: AA
- Debt and Additional Continuing Obligations: BBB
- Financial Performance and Liquidity: A

Outlook: Stable

The outlook revision from negative to stable reflects the City's identification and dedication of permanent revenue sources to address its severely underfunded pensions. In KBRA's opinion, this is not a panacea, as additional revenue sources will be required once the ramp-up is concluded and the pension funds are on an actuarial schedule. This represents a longer term financial risk that will have to be addressed in the future, and require critical decision-making. KBRA will continue to monitor progress in identifying options. Nevertheless, KBRA views these recent actions as establishing a roadmap for solvency. The stable outlook also reflects an improving local economy, significant progress in aligning revenues and expenditures and reducing the structural budget deficit, and the adoption of Fund Stabilization policies.

In KBRA's view, the following factors may contribute to a rating upgrade:

- Resolution of long-term pension funding issues in a fiscally responsible and affordable manner that maintains budgetary integrity, and does not adversely affect the City's competitive position.
- Sustained economic recovery that includes resumption of tax base growth and improved major revenue source performance.
- Attainment and maintenance of structurally balanced operations.
- Lowered debt ratios, reflecting moderation of borrowing by City and overlapping jurisdictions and continued resource base expansion.

In KBRA's view, the following factors may contribute to a rating downgrade:

- Disruption in forward progress with respect to financial operations requiring the City to again resort to use of non-recurring sources, including established reserves.
- Inability to effectively accommodate increased pension funding requirements.
- Unanticipated large capital borrowing by City and/or overlapping jurisdictions that sharply increases debt levels.

S&P Global
Ratings

RatingsDirect®

Summary:
Chicago, Illinois; General Obligation

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Table Of Contents

Summary:
Chicago, Illinois; General Obligation

Credit Profile		
Chicago GO		
Long Term Rating	BBB+/Stable	Outlook Revised

Rationale

S&P Global Ratings revised its outlook to stable on Chicago, Ill.'s outstanding GO debt and GO limited tax certificates. The outlook revision reflects the Chicago city council's recent approval of a new water/sewer tax, which supports larger contributions into its municipal employees' pension plan; larger contributions to the plan are permanent. This plan has an $18.6 billion net pension liability and 20% funded; in our view, it is one of the weakest- funded in the nation. The city's contributions, funded in part by the new water-sewer tax, gradually increase by fixed amounts over a five-year period before moving to an annual contribution that will grow to put the fund on track to 90% funding in 40 years. In our view, this measure temporarily forestalls immediate credit deterioration by providing short-term stability and predictability to the city's budget over the five year ramp. We also recognize, however, that this measure falls short of providing long-term stability to the plan because it currently does not identify how larger contributions in and beyond 2022 will be accommodated, and that in absence of additional measures to ensure the affordability of the contributions and the sustainability of the plan, credit stability could be short-lived.

At the same time, S&P Global Ratings affirmed its 'BBB+' rating on Chicago's outstanding GO debt and its 'BBB' rating on the city's series 1997 GO limited tax building acquisition certificates. Chicago's GO bonds are secured by a pledge of the city's full faith credit and resources, as well as ad valorem property taxes without limitation as to rate or amount. The certificates are payable from legally available funds, and are not secured by a debt service levy.

The revenues generated by the new tax on water-sewer bills, together with increased contributions from new hires, and supplemented by corporate fund and other enterprise fund contributions, will be transferred to the general fund to cover the planned increased contributions to the city's municipal pension plan over the next five years until it reaches and is able to sustain its statutorily required contributions. The tax, which will initially be set at $0.59 cents per 1,000 gallons for 2017 and increase thereafter to $2.51 per 1,000 gallons over the five-year period, will be imposed city-wide and will reach a variety of users--including non-metered properties, which we view as a large and diverse tax base. Given our view of the credit quality of the water and sewer enterprise systems, which we rate (see our reports dated April 26, 2016, and Oct. 12, 2015), we consider there to be minimal risk that transfers to the general fund would not be made on a timely basis.

The city is also pursuing legislative backing for a revision to the section of the state pension code that pertains to its municipal employees' and laborers' plans during the fall veto session, which occurs in November. Should the city be successful in achieving these legislative changes, it will result in an amendment to the respective pension statutes to reflect the goal of a five-year ramp up to annual contributions structured to achieve 90% funding in 40 years (or, 2057);

this is similar to what is already in the statutes for the police and fire plans (90% funded by 2055), which we believe could bode well for their prospects for approval by the legislature. Additionally, the city plans to manage future liabilities through a new package of pension benefits for employees hired after Jan. 1, 2017. The new hires will contribute 11.5% of their compensation to the laborers and municipal pension plans, and their pension benefits do not have cost of living adjustments.

Over the long term we expect:

- The city to carry through on reaching full statutory funding of all pensions by 2022, with those contributions matched by predictably-performing revenues;
- The city to be proactive during its five year ramp up period in finding additional solutions above and beyond what is currently identified for its pension plans to ensure the long term sustainability of its pension systems and the affordability of its contributions;
- An end to the city's practice of "scoop and toss" debt management by 2019; and
- The city's continued progress toward a sustainably balanced budget that is supported by elected officials.

In our view, the city's progress on these items could be impeded by poor market returns in the pension plans, which could put additional future pressure on the various identified revenues above and beyond current expectations. Because the city's contributions over the five year ramp up are fixed; poor market returns could place additional pension funding pressure on the city when it transitions out of its five year ramp up and cause a larger than expected uptick in the pension contributions starting in budget year 2022. While this uptick is outside our outlook horizon, we believe anticipatory action on the city's part would have a positive impact on managing future increases in its pension contributions.

While the impact to the city's economy caused by the proposed change in its taxing structure remains to be seen, we currently believe the city's strong, deep, and diverse economic base is capable of supporting the revenues needed to meet its pension contributions.

The 'BBB+' rating reflects our view of the city's general creditworthiness, including its:

- Strong economy, with access to a broad and diverse metropolitan statistical area (MSA);
- Weak management, despite "good" financial policies and practices under our financial management assessment (FMA) methodology;
- Very weak budgetary performance, with operating results that we expect could deteriorate in the near term relative to fiscal 2015, which closed with an operating surplus in the general fund, but an operating deficit at the total governmental fund level after adjusting expenses to reflect the effect of bond refinancing as well as actuarially determined pension expenses;
- Strong budgetary flexibility, with an available fund balance in fiscal 2015 of 24% of operating expenditures, but limited capacity to reduce expenditures;
- Very strong liquidity, with total government available cash at 20.8% of total governmental fund expenditures and 1.7x governmental debt service, and access to external liquidity we consider strong;
- Very weak debt and contingent liability position, with debt service carrying charges at 11.9% of expenditures and net direct debt that is 159.0% of total governmental fund revenue, as well as a large pension and other postemployment benefit (OPEB) obligation and the lack of a plan to sufficiently address the obligation; and
- Weak institutional framework score.

Strong economy

We consider Chicago's economy strong. The city, with an estimated population of 2.7 million, is located in Cook County in the Chicago-Naperville-Elgin, IL-IN-WI MSA, which we consider to be broad and diverse. The city has a projected per capita effective buying income of 97.9% of the national level and per capita market value of $86,904. Overall, the city's market value grew by 14.4% over the past year to $236.7 billion. The county unemployment rate was 6.1% in 2015.

Chicago's employment opportunities span all the major industries. The city is home to the headquarters of several large corporations, has a large tourism base, and is a transportation hub.

Equalized assessed value (EAV) peaked at $84.7 billion in levy year 2009, and fell every year to $62.4 billion by levy year 2013, reflecting a continued decline in home prices. This trend may have finally turned around in levy year 2014, with a 4.1% year-over-year increase to $64.9 billion. This was followed by a 9.3% year-over-year increase to $71 billion for levy year 2015. At least part of the increase in levy year 2015 is attributed to the triennial reassessment.

In terms of new development, the city announced a Chinese commercial property firm plans to build a $900 million skyscraper that will consist of about 400 residential units, a 200-room hotel, and 9,000 square feet of retail space; the project broke ground in August. Additionally, an announcement was made that the estimated $500 million Obama Presidential Library will be built on the city's south side.

The employment base is steady. Several corporations have announced plans to move into the city; most recent is McDonald's announcement that it is moving its headquarters and 2,000 employees. This follows other recent announcements such as Kraft Heinz, Motorola Solutions, and ConAgra.

Weak management

We view the city's management as weak, despite "good" financial policies and practices under our FMA methodology, indicating financial practices exist in most areas, but that governance officials might not formalize or monitor all of them on a regular basis.

The management factor score was weakened given debt service carrying charges and actuarially determined pension and OPEB contributions are over 40% of adjusted total governmental fund expenditures and likely to continue rising. Given the status of the funded ratios of the city's pension plans, we anticipate that it will take some time for Chicago's fixed charges to subside.

When constructing the budget, assumptions rest on internal and external sources of information. Management provides quarterly budget to actual reports to the city council, albeit with a lag in the timing of the availability of information, and the city can amend the budget during the year. The city produces and annually updates its long-term financial and capital plans. It has formal investment and debt management policies. To support its reserves, the city has adopted ordinances that limit the use of nongeneral fund reserves for budget-balancing purposes, and the mayor has issued directives that add portions of future surpluses to reserves.

Very weak budgetary performance

Chicago's budgetary performance is adequate in our opinion. The city had surplus operating results in the general fund of 2.2% of expenditures, but a deficit result across all governmental funds of negative 12.8% in fiscal 2015, in part due to the implementation of GASB 68. Our assessment accounts for the fact that we expect budgetary results could deteriorate somewhat from 2015 results in the near term. We adjusted total governmental fund expenses to reflect the effect of bond refinancing as well as pension expenses, net of the enterprise funds share, at the actuarially determined pension contribution level. We believe these adjustments more accurately represent the city's ongoing structural budgetary performance.

Chicago is gradually making progress in addressing its budgetary challenges, but we feel some aspects remain significant: there are forecasted budget gaps to close and growing pension contributions to fund. The city's continued reliance until 2019 on "scoop and toss," which delays debt payments and increases interest costs, adds to our view that the city's budget remains unbalanced and structural deterioration is likely without continued deliberate and determined responses from the city.

The city's forecast indicates the general fund budget gap for 2017 is narrowed to $137 million, or 3.8%, the smallest budget gap faced by the city during the past nine years. Positive economic trends and efforts to find efficiencies in the budget have helped narrow the budget gap. The city, in its financial forecast, indicated a goal to narrow the 2017 gap further, mainly through expenditure actions, as it prepares its budget. Its forecast for budget year 2018 and 2019 shows widening gaps of $233 million and $324 million, respectively, in the base-case scenario; even in the positive case, the city forecasts budget gaps it must close.

The mayor's fiscal 2017 recommended budget is set to be released on October 11, 2016. Recently the city announced plans to add nearly 1,000 police officers over the next two years, beginning with the 2017 budget. We expect the city will structurally accommodate the added expense of the new hires in its upcoming budget, without sacrificing reserves or relying on other one-time budget actions, and without widening the initial budget gap.

Fiscal 2016 general fund revenues and expenditures are overall showing positive variances to date. The 2016 budget included the largest property tax rate increase in the city's recent history, when taxes were increased by more than $544 million over four years to fund additional payments on city's police and fire pension obligations. The general fund budget had no reliance on reserves, and it included a $5 million increase to the operating liquidity fund, which is part of the service concession and reserve fund in the audit.

Positive budget variances also contributed to the city's $74.6 million general fund surplus, on a GAAP basis, in fiscal 2015. General fund revenues consist of an array of sources, but do not include property taxes. Historically, the city relies on property tax revenues mainly to cover debt service and pensions, both of which are funded outside the general fund budget. The leading source of general fund revenue is utility taxes, which were $438 million or 13% of total general fund revenues, followed by transaction tax (12%), fines (11%), and state sales tax (10%). Public safety expenses account for 60% of general fund expenditures.

The city has taken the first crucial steps of identifying revenues to support its four pension plans during the five year ramp up period. Overall, the goal for each of the pension plans is to reach 90% funding in 40 years, and the assumed rate of return is 7.5%. The city has mapped out its pension contributions for the next five years, and officials plan to raise property taxes, water/sewer tax revenues, and other identified sources over the five-year period to meet these future contributions. In our view, the city's current and recent actions of raising revenues for its four pension plans are the first step. However, funded levels are projected to decline during the ramp up period based on contributions that are lower than actuarially recommended. We believe additional action will be required from the city to provide long-term sustainability to its retirement contributions and to address likely increases in contributions immediately following the five-year ramp up period, especially given lower than expected returns in fiscal 2016 and a 7.5% assumed rate of return that the plan has not met over the past ten years. Additional contributions would be required to the extent that actual experience and performance deviates from the city's assumptions. If the rates of return are lowered in favor of more conservative measures, it would also lead to a higher liability, and also lead to increased annual contributions under the statutory formula. We believe there could be additional pressure on the currently-identified revenues due to this situation.

For the city's budgetary performance to improve, we expect the city to:

- Continue closing forecasted future budget gaps with sound fiscal management and shed the practice of relying on debt to cover settlements and other budget items;
- Manage public safety expenditures and personnel-related expenditures; and
- Address its fixed charges from debt and pensions in a sustainable way without the reliance on one-time resources.

Strong budgetary flexibility

Chicago's budgetary flexibility is strong, in our view, with an available fund balance in fiscal 2015 of 24% of operating expenditures, or $812.7 million. The available fund balance includes $191.4 million (5.6% of expenditures) in the general fund and $621.3 million (18% of expenditures) that is outside the general fund but legally available for operations. Over the past three years, the total available fund balance has remained at a consistent level overall, totaling 23% of expenditures in 2014 and 24% in 2013. Negatively affecting budgetary flexibility, in our view, is Chicago's limited capacity to reduce its expenditures.

To meet its ongoing pension obligations, the city may be met with resistance to maintain or raise its levels of taxation beyond fiscal 2016. The city substantially raised property taxes, with a multi-year tax increase beginning in budget year 2016, recently increased the E911 tax to fund laborers' plan contributions, and announced water/sewer tax revenues to fund its municipal pension plan contributions. Although the city has taxing flexibility owing to its home-rule status, it has not historically availed itself of that flexibility in a significant way until it adopted the fiscal 2015 budget. As we evaluate the city's budgetary flexibility and its revenue-raising capability on an ongoing basis, it will be with an awareness of the tax increases occurring at other agencies, such as Chicago Public Schools and Cook County, to address their pension contributions.

In our view, the city is faced with a limited capacity to cut its spending, given that 60% of its general fund expenses are for public safety.

The city has adopted ordinances that discourage spending down reserves that are held outside the general fund, specifically the $500 million of reserves in the long-term Skyway fund. This indicates to us that the Skyway reserves, specifically, will not be drawn down in the foreseeable future. The city budgeted to add $5 million annually to the service concession and reserve funds in budget years 2014, 2015, and 2016. The city's forecast for fiscal 2017 shows a $137 million budget gap, which the city has indicated it plans to close by the time it adopts its 2017 budget. Given the city's positive budget variances to date in 2016, we expect budget flexibility to remain strong through the end of the fiscal year.

To maintain its strong budgetary flexibility, we expect the city to overcome any exposure, if it arises, to political resistance to the new taxing structure in upcoming budgets, to avert setbacks to the plans it has made to date. Additionally, we expect the city will close its forecasted budget gaps without material reliance on reserves.

Very strong liquidity

In our opinion, Chicago's liquidity is very strong, with total government available cash at 20.8% of total governmental fund expenditures and 1.7x governmental debt service in 2015. In our view, the city has strong access to external liquidity if necessary.

We note that the city's cost of capital is higher at the given rating level, but because of its history of accessing the market in a variety of ways, we still view its access as strong.

Chicago has short-term financing in place that allows it to manage its liquidity needs. The city has an up to $900 million revolving line of credit from JPMorgan Chase Bank, National Association, Bank of China, Chicago Branch and BMO Harris Bank, N.A. with $7.2 million currently outstanding.

The city's restricted and unrestricted cash, cash equivalents and investments primarily consist of U.S. agencies, certificates of deposit, and other short-term instruments.

Very weak debt and contingent liability profile

In our view, Chicago's debt and contingent liability profile is very weak. Total governmental fund debt service is 11.9% of total governmental fund expenditures, and net direct debt is 159.0% of total governmental fund revenue.

We adjusted the city's debt service expense to reflect the impact of bond refunding.

Chicago has demonstrated active financial management with respect to its debt portfolio that lessened its exposure to payment provisions. Chicago recently converted all of its GO, sales tax, and water and wastewater variable rate debt to fixed rate, and terminated associated swaps to eliminate its exposure to contingent liabilities and payment provisions. However, in our view, the city's practice of restructuring its debt for budgetary relief, and to cover interest payments, settlements, and judgments, weakens its debt measures.

The city plans to issue additional GO and other tax-secured debt in the medium term. The city plans a $1.275 billion bond issue for late calendar 2016; in this issuance is the city's last "scoop and toss" debt restructuring which covers the amounts needed for the next three years. About $625 million will fund capital and equipment, settlements, and judgments. The remainder is for bond refunding.

In our opinion, a credit weakness is Chicago's large pension and OPEB obligation. Chicago's combined required pension and actual OPEB contributions totaled 31.6% of total governmental fund expenditures in 2015. Of that amount, 29.7% represented required contributions to pension obligations, and 1.9% represented OPEB payments. The city made 52% of its annual required pension contribution in 2015. The funded ratio of the largest pension plan is 20%.

The city is addressing its pension obligations for all four of its plans. The city provides OPEBs to a limited number of eligible retirees and is currently in the process of phasing the benefit out entirely, though that too has been the subject of legal challenge that may continue.

To fund the four pension plans to 90% in 40 years, the city has identified three significant revenue sources to fund its contributions: property taxes for the police and fire pension plans, E911 revenues for the laborers' plan, and water/sewer taxes for the municipal plan. For each plan, the contributions will ramp up over a five-year period until reaching the statutorily required amount in the sixth year.

The city's next step is to get the funding benefit reform plan for the laborers' and municipal employees' plans to the state legislature at the fall session, which occurs in November. The city seeks to amend the respective pension statutes to reflect the funding goals. Furthermore, the city is unable to change pension benefits for its existing employees due to state constitutional constraints, but to manage future liabilities, employees hired after Jan. 1, 2017 will contribute 11.5% of their compensation to the laborers and municipal pension plans, and their pension benefits do not have cost of living adjustments.

Chicago has adopted updated reporting standards in accordance with Governmental Accounting Standards Board Statement 67 and 68. The funded ratio, which we estimate as the plan fiduciary net position as a percent of the total pension liability, is low for each of the four plans. The funded status of each of the plans, as of the Dec. 31, 2015 actuarial valuation date, are as follows:

- The municipal employees' plan: 20% funded, with an $18.6 billion net pension liability;
- The laborers' plan: 33% funded, with a $2.5 billion net pension liability;
- The police officers' plan: 25% funded, with a $9 billion net pension liability; and
- The firefighters' plan: 22% funded, with a $3.8 billion net pension liability.

The city's statutory funding plan for each of the various plans is to reach a 90% funded ratio in 40 years, and the current assumed rate of return is 7.5%. We anticipate that the measures adopted by the city to this point will likely allow it to meet its contributions during the five-year ramp up period. However, there remains risk that the assumptions, particularly with regards to investment returns, could be optimistic and could lead to future budget gaps; the funding levels of its plans would weaken further during the ramp up period before potentially improving. We would expect the city to monitor the performance of the pension plans and intervene with additional solutions over the course of the five-year ramp up and beyond.

Based on GASB accounting, the municipal employees' pension plan is 20% funded and absent significant additional contributions, the plan's fiduciary net position will not be available to make all projected future benefit payments to current plan members beyond 2023. The $18.6 billion net pension liability is estimated using a blended discount rate of 3.73%. The laborers' plan is 33% funded; the plan's fiduciary net position will not be available to make all projected future benefit payments to current plan members beyond 2027. The $2.5 billion liability is estimated using a discount rate of 4.04%. The policemen's and firemen's plans have higher current discount rates of 7.15% and 7.16%, respectively, and their net position and future contributions are sufficient to finance future benefit payments through 2063 and 2061.

Weak institutional framework

The institutional framework score for Chicago is weak.

Outlook

The outlook is stable, and it reflects our belief that the city is gradually moving in the right direction toward stabilizing its budget and its pension plan contributions. We believe the city council's approval of the new tax, coupled with adjustments to benefits offered to new hires, are are tangible steps that forestall credit deterioration in the near term. However, in order to ensure the long-term sustainability of its pension contributions and continued credit stability, we believe that the city will need to identify additional measures to address its mounting pension contributions within the next two years. Furthermore, our outlook is predicated on continued progress toward the elimination of the city's structural budgetary imbalance.

Downside scenario

We could lower the rating if the measures taken to date by the city prove insufficient to achieve structurally balanced budgets in the next two years, or if the city's budgetary performance is compromised by issues such as unplanned upticks in pension contributions, public safety expenses, or other types of negative budget variances that create further gaps in the city's current structural budgetary imbalance. If budgetary performance pressures persist or worsen in such a way that we believe the city's budgetary flexibility is compromised, such as if the city were to dip into its Skyway fund reserve to bridge budget gaps or for one-time items we could lower our rating. Additionally, a lowered rating could result if other reserves are tapped, and we believe the prospects for replenishing reserves in a timely manner are remote. We could also lower the rating if the city fails to identify and execute on a timely basis additional steps to ensure the sustainability of its pension contributions.

Upside scenario

In addition to the pressure of funding pensions, there are other aspects of the city's structural imbalance that bear correcting, such as the city's approach to debt as a source of budgetary relief, the high fixed charges stemming from its high liabilities, and progress on strengthening its pension plans. We do not anticipate these will be eliminated over the two-year outlook horizon, but if the city made significant progress in eliminating these issues, it could have positive credit implications.

Related Research

- S&P Public Finance Local GO Criteria: How We Adjust Data For Analytic Consistency, Sept. 12, 2013
- Incorporating GASB 67 And 68: Evaluating Pension/OPEB Obligations Under Standard & Poor's U.S. Local Government GO Criteria, Sept. 2, 2015
- 2015 Update Of Institutional Framework For U.S. Local Governments

Ratings Detail (As Of October 7, 2016)		
Chicago GO		
Long Term Rating	BBB+/Stable	Outlook Revised
Chicago GO bnds proj		
Long Term Rating	BBB+/Stable	Outlook Revised
Chicago GO bnds ser 2004 dtd 06/24/2004 due 01/01/2006-2014 2023		
Long Term Rating	BBB+/Stable	Current

Ratings Detail (As Of October 7, 2016) (cont.)		
Unenhanced Rating	NR(SPUR)	Current
Chicago GO var rate dem bnds (Neighborhoods Alive 21 Prog) ser 2002B-3, 4, 5		
Long Term Rating	BBB+/Stable	Current
Unenhanced Rating	NR(SPUR)	Current
Chicago GO VRDBs (Neighborhoods Alive 21 Prog) ser 2002 B-4		
Long Term Rating	BBB+/Stable	Current
Unenhanced Rating	NR(SPUR)	Current
Chicago GO VRDO ser 2005D-2		
Long Term Rating	BBB+/Stable	Current
Unenhanced Rating	NR(SPUR)	Current
Chicago GO (wrap of insured) (AMBAC & AGM)		
Unenhanced Rating	BBB+(SPUR)/Stable	Outlook Revised
Chicago GO (wrap of insured) (AMBAC & AGM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Outlook Revised
Chicago GO (wrap of insured) (AMBAC & BHAC) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Outlook Revised
Chicago GO (wrap of insured) (FGIC & BHAC) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Outlook Revised
Chicago GO (AGM)		
Unenhanced Rating	BBB+(SPUR)/Stable	Outlook Revised
Chicago GO (AGM)		
Unenhanced Rating	BBB+(SPUR)/Stable	Outlook Revised
Chicago GO (AGM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Outlook Revised
Chicago GO (ASSURED GTY)		
Unenhanced Rating	BBB+(SPUR)/Stable	Outlook Revised
Chicago GO (BAM)		
Unenhanced Rating	BBB+(SPUR)/Stable	Outlook Revised
Chicago GO (BAM)		
Unenhanced Rating	BBB+(SPUR)/Stable	Outlook Revised
Chicago GO (BAM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Outlook Revised
Chicago GO (FGIC)		
Unenhanced Rating	BBB+(SPUR)/Stable	Outlook Revised
Chicago GO (FGIC) (AGM) (BAM)		
Unenhanced Rating	BBB+(SPUR)/Stable	Outlook Revised
Chicago GO (FGIC) (MBIA) (National)		
Unenhanced Rating	BBB+(SPUR)/Stable	Outlook Revised
Chicago GO (MBIA) (National)		
Unenhanced Rating	BBB+(SPUR)/Stable	Outlook Revised

Ratings Detail (As Of October 7, 2016) (cont.)		
Chicago GO		
Long Term Rating	BBB+/Stable	Outlook Revised
Chicago GO		
Long Term Rating	BBB+/Stable	Outlook Revised
Chicago GO		
Long Term Rating	BBB+/Stable	Outlook Revised
Chicago GO		
Unenhanced Rating	BBB(SPUR)/Stable	Outlook Revised
Chicago GO (AGM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Outlook Revised
Chicago JOINTCRIT		
Long Term Rating	BBB+/Stable	Current
Unenhanced Rating	NR(SPUR)	Current
Chicago JOINTCRIT		
Long Term Rating	BBB+/Stable	Current
Unenhanced Rating	NR(SPUR)	Current
Chicago GO		
Unenhanced Rating	BBB+(SPUR)/Stable	Outlook Revised
Chicago GO (CIFG)		
Unenhanced Rating	BBB+(SPUR)/Stable	Outlook Revised

Many issues are enhanced by bond insurance.

Certain terms used in this report, particularly certain adjectives used to express our view on rating relevant factors, have specific meanings ascribed to them in our criteria, and should therefore be read in conjunction with such criteria. Please see Ratings Criteria at www.standardandpoors.com for further information. Complete ratings information is available to subscribers of RatingsDirect at www.globalcreditportal.com. All ratings affected by this rating action can be found on the S&P Global Ratings' public website at www.standardandpoors.com. Use the Ratings search box located in the left column.

S&P Global Ratings

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Table Of Contents

Chicago; General Obligation

Credit Profile		
US$176.745 mil GO bnds rfdg ser 2019B due 01/01/2030		
Long Term Rating	BBB+/Stable	New

Rationale

S&P Global Ratings has assigned its 'BBB+' long-term rating to the City of Chicago's series 2019B general obligation (GO) bonds. At the same time, we affirmed our 'BBB+' ratings on the city's GO bonds outstanding. The outlook is stable.

The bonds are secured by the full faith and credit pledge of the City of Chicago. Bond proceeds will be used to refund debt outstanding for savings.

Credit overview

Chicago recently closed its $838 million fiscal 2020 budget gap through a combination of one-time and structural actions, leaving it with a deep 7% structural imbalance before accounting for actuarial pension funding shortfalls. While we generally do not consider the use of one-time budget-balancing actions favorably, given the large gap, we consider some use of one-time measures a reasonable, and not uncommon, approach. In this situation, we note in particular that the city is using these one-time measures to buy time to implement structural solutions to fully align its operations by fiscal 2022. Given Chicago's operating history and remaining hurdles, the rating will incorporate a structural imbalance rating cap of 'BBB+' until it is clear that all obstacles to structural balance either have been overcome, or are in the city's immediate control and plan of action. Achieving anything less than full structural balance by fiscal 2022--when the full actuarially based statutory payment ramp-up for all four pension plans will occur--will be a backslide and would have an negative impact on the rating.

To achieve its goal of structural balance by fiscal 2022, the city identified several revenue enhancements. Preferring alternatives to a property tax increase, Chicago turned to the state legislature for approval for a higher real estate transfer tax (RETT), and also had hopes for revenue enhancements from casino gaming taxes, which would help in subsequent budgets. However, the state reached the end of its 2019 legislative session on Nov. 14 without taking action on Chicago's requests, leading the city to balance 2020 using other sources. We understand that the city will continue to pursue the RETT and casino gaming revenue in the spring legislative session, with the possibility of securing substantial additional revenue for fiscal 2021. The city council can also implement the RETT by passing a referendum.

Credit factors include our assessment of the following factors:

- Strong economy, with access to a broad and diverse metropolitan statistical area (MSA);
- Very weak budgetary performance, with operating deficits in the general fund and at the total governmental fund level in fiscal 2018;

- Strong budgetary flexibility, with an available fund balance in fiscal 2018 of 26% of operating expenditures, but limited capacity to reduce expenditures;
- Very strong liquidity, with total government available cash at 28.1% of total governmental fund expenditures and 2.5x governmental debt service, and access to external liquidity we consider exceptional;
- Very weak debt and contingent liability profile, with debt service carrying charges at 10.5% of expenditures and net direct debt that is 150.3% of total governmental fund revenue, as well as a large pension and other postemployment benefit (OPEB) obligation and the lack of a plan to sufficiently address the obligation;
- Weak management designation resulting from the city's ongoing structural imbalance despite good financial policies and practices under our Financial Management Assessment (FMA) methodology; and
- Adequate institutional framework score.

Strategy, planning, and 2020 budget solutions

Since Mayor Lightfoot took office in May 2019, her administration has been working to stabilize the city's financial position while keeping the economy on track. Her reforms have focused on increased transparency for residents, but include controversial changes like the elimination of "aldermanic prerogative," an aldermanic ward veto power that has long been a hallmark of Chicago politics; further changes to workers compensation; and a more comprehensive ethics ordinance.

As approved by city council, the final budget relies on about $323 million in one-time measures, leaving the city with a 7% structural imbalance before accounting for actuarial pension funding shortfalls. We view the use of one-time revenues as a means to an end, but one that has a limited shelf life. Chicago's ongoing ability to demonstrate a credible path to structural balance, whether it be through garnering state support for new revenue streams or evidence of political willingness to execute such contingent measures as a property tax increase, will be critical to our rating analysis. Of importance, the balance of revenue increases and expenditure reductions must allow the city to be an attractive location for both residents and corporations, or risk an economic backslide, not allowing it to expand and attract talent.

Bond proceeds will be used to refunding debt outstanding for savings, and will be sold in conjunction with a refunding issued by the Sales Tax Securitization Corp. (STSC). Savings from both refundings, totaling $210 million, will be taken primarily in 2020 as a one-time revenue source to balance the budget, but the final maturity of the refunded bonds will not be extended. The STSC bonds will have a second-lien pledge on revenues but will still generate sizable savings for Chicago's budget.. Using the STSC credit to refund GO debt restricts the amount of sales tax debt Chicago can issue in the future; we view this tactic as limiting, but understand the context within the city's longer-term objectives.

Fixed cost pressures continue unabated

For years Chicago has been working to address its severely underfunded pensions. When they reach full actuarially based statutory payments of $2.25 billion in 2022, this amount will be nearly $1 billion more than their contributions in 2019. Even with such a sizable contribution increase, it will still only keep the city on pace to fund 90% of the liability in 40 years. Given the city's projections of sizable budgetary shortfalls of approximately $1.1 billion in 2021 and 2022, the need to determine structural solutions for the growing obligations is ongoing for the foreseeable future. In our view, even with a structural solution for funding the pension costs, there could still be pressure to fund capital or other needs the city may have. An economic downturn would exacerbate the situation.

In the future, we would view negatively any measure that lowers annual contributions to Chicago's pension systems, particularly given the city's low funded ratios (weighted average of 23%) and the fact that the pension funds already must liquidate assets to make annual benefit payments. Therefore, reductions to annual contributions would increase the likelihood of asset depletion, necessitating contribution spikes in the not-too-distant future.

Economy strong but faces challenges

Although Chicago's weaker population trends will likely hamper economic growth, we still anticipate tax base growth, albeit slow. We do not anticipate significant resident flight, given the strengths of the overall Chicago economy. However, the need for a strong and viable school district is critical to the city's long-term success. Following the Chicago Public Schools' recent acrimonious contract negotiations with the Chicago Teachers Union, the city must continue to find ways to deliver education to its residents in a manner that maximizes access to education and minimizes disruption, or, in our view, it would likely have a negative impact on its economy and financial position. Likewise, progress on furthering economic opportunities for residents and reducing violence will be critical to the city's long-term tax-base and fiscal health.

Outlook

The stable outlook over the one-year horizon reflects our expectation that Chicago will make incremental progress toward executing its three-year plan to structural balance. We acknowledge that the city's fiscal 2020 budget is structurally imbalanced, but we recognize that the city has identified structural solutions, including contingency measures, that would significantly narrow the gap in fiscal 2021 and fully address it by fiscal 2022. If the city is able to garner legislative support for new revenue streams in the Illinois spring legislative session, we expect that it will be able to make notable progress toward closing the gap. Should these revenues not come to fruition, our outlook is predicated on the city's willingness to execute alternative structural measures such as a property tax increase. Chicago's ongoing ability within the next year to demonstrate a credible path to structural balance, including fully funding its pension ramp by 2022, will be critical to our rating analysis.

Although the city's poorly funded pensions place considerable pressure on its finances, in our view, recent progress toward actuarially based statutory payments has reduced the likelihood of plan insolvency. We do not expect that the city will face a sharp spike in pension contributions in the near term other than the scheduled ramp-up in 2022, reducing the likelihood that the budget gap will substantially grow beyond the 2020 forecast. However, current plan assumptions and methods, including the discount rates in excess of our guidelines, do present risk that Chicago's pension costs will be steeper than the city currently forecasts.

In addition, we expect that due to Chicago's diverse revenue streams, the budget gap will not substantially widen within the outlook horizon should a potential economic downturn occur.

Downside scenario

Should the city fail to achieve legislative support or implement contingency measures to narrow its budget gap for fiscal 2021 and place it on a path to structural balance by 2022, we could consider a downgrade. In addition, if the city's structural gap significantly widens relative to its forecast or if Chicago backslides on pension funding, we could lower the rating. Other actions that could result in downward rating pressure include if:

- We see increasing evidence of political resistance to raising revenues or an inability to make expenditure cuts;
- Further securitization of state-shared revenues for debt service were to result in cash-flow pressures;
- The city's debt metrics were to substantially increase;
- Changes related to Illinois or Chicago Public Schools (CPS) lead to significant, unexpected changes in the city's revenues or expenditures; or
- The city were to draw down its reserves.

Upside scenario

Should the city execute its three-year plan to structural balance, including funding all pension plans on an actuarially based statutory payments basis, we would consider it a significant step in the right direction. However, the city's long-term fiscal health also depends on major structural changes, and even if Chicago is able to balance its budget by fiscal 2022, we expect that its financial position will remain challenged given the long-term nature of the funding challenges it faces. Other factors that we would consider include containment of fiscal pressures related to CPS, Illinois, and other overlapping governments or improving demographic trends.

Strong Economy Despite Systemic Challenges

We consider Chicago's economy strong. The city, with an estimated population of 2.7 million, is located in Cook County in the Chicago-Naperville-Elgin MSA, which we consider to be broad and diverse. The city has a projected per capita effective buying income of 102.9% of the national level and per capita market value of $113,531. Overall, the city's market value was stable over the past year at $306.1 billion in 2019. The county unemployment rate was 4.0% in 2018.

Chicago, the nation's third-largest city, is a global business center and transport hub. It continues to be named as a top city for foreign direct investment and corporate relocations , and along with its surrounding MSA, has a more educated population than the nation (46% with some higher education compared with 39% for the U.S.) and is also home to a larger-than-average population of the highly desirable 25-34 year-old cohort (15.1% compared with 13.9% for the U.S.).

However, the Chicago MSA's economic growth has been tepid relative to that of the U.S. and comparable MSAs, and although the MSA remains an economic powerhouse, it is not without challenges. According to IHS Markit, the Chicago MSA's projected year-over-year gross metro product grew 2.3% in 2018 and 2019 compared with 0.9% in 2017. IHS projects that the MSA's growth will slow to 1.8% in 2020, 1.3% in 2021, and 0.9% in 2022. We expect that growth will remain in line with that of the nation, demonstrating slower growth over the next several years. Despite sluggish demographic and slower tax base growth, the city remains an attractive location for corporate expansions and relocations, helping to stabilize the local economy. For additional information on the regional economic picture, please see "Credit Conditions: In The Mist Of Mixed Economic Signals, U.S. State And Local Credit Quality Remains Strong," published Oct. 29, 2019.

In addition to supporting the economic engine of Chicago's loop, the mayor's plans include a comprehensive strategy for economic development, specifically targeting neighborhoods with population losses. Violent crime statistics are improving, which could also bode well for demographics. Much like the need to provide accessible, effective education to city residents, creating a safer city is integral to Chicago's long-term economic and financial health, and the Lightfoot administration is addressing those needs using data-focused solutions in conjunction with the University of Chicago. The city also plans to leverage its relationship with community partners to enhance existing social and neighborhood services in some communities.

Questions about long-term solutions for the city's financial problems inevitably come back to the delicate balance of the economic impact of any revenue increases. Chicago's property tax rates remain competitive with those of neighboring suburbs, and its housing and cost of doing business remain affordable relative to those of other large cities such as Boston, Denver, Los Angeles, New York, and Washington. If Chicago were to raise property taxes by $300 million, this would increase the average tax rate by 0.34% from its current average tax rate of 6.79%. The city and its residents have continually voiced distaste for any revenue generation that requires a property tax hike. Therefore, Chicago will be challenged to find a long-term structural revenue solution that will allow it to remain a vibrant place to work and live.

Fiscal uncertainty from key governmental partners could also weigh on the city's future growth. The state faces significant projected deficits and maintains large unfunded pension liabilities. CPS received financial relief with the new state funding formula, but it too faces financial challenges, including a dependency on the state to continue providing additional funding. When assessing the financial needs of overlapping entities, combined with the city's own significant unfunded pension liabilities and high fixed costs, it is likely that either of these entities will need to raise taxes or cut services. However, taxes are just one factor many residents and businesses evaluate when choosing where to locate. For example, Chicago's costs of living and doing business remain lower than those of comparable cities, and its diverse, highly educated workforce and transportation infrastructure remain attractive traits. Services and amenities, including quality of schools and public safety, are also considerations, and to the degree that financial challenges weigh on service levels, residents and businesses may consider locating elsewhere.

Weak Management Stemming From Ongoing Structural Imbalance

We view the city's management as weak, despite good financial policies and practices under our FMA methodology, indicating financial practices exist in most areas, but that governance officials might not formalize or monitor all of them on a regular basis.

Although we consider Chicago as having strong financial policies and reporting practices, our weak management score reflects both its structural imbalance and high fixed costs, and a lack of what we view as a credible plan to address both issues. We consider the city as having a history of structural imbalance due to its underfunding of pension actuarially determined contributions (ADCs), and we expect that this structural imbalance will continue; while Chicago has articulated clear steps to regaining structural balance, significant implementation risk remains. Debt service carrying charges and actuarially determined pension and OPEB contributions are about 40% of adjusted total governmental fund expenditures and likely to continue rising. Even once the city reaches full ADC-based funding, given its current debt service schedules and weak pension funded ratios, we expect that it will take some time for Chicago's fixed charges to subside.

However, in her budget address the mayor laid out several ideas that we view as positive steps in addressing the imbalance over the next two years. First, in our view, transparency regarding the size of Chicago's financial problems, including disclosure of likely pension contributions, debt service, and wage growth, is critical to understanding the scope of the changes required. Second, the mayor has acknowledged the interconnectivity between gap-closing measures, economic growth, and outmigration. Third, she voiced a commitment to making politically difficult choices. Fourth, she has demonstrated steps already taken to address the gap, and we believe that a good faith effort to reduce expenditures not only demonstrates good management but could also prove beneficial when asking for support for new revenues. The city has also made other changes such as implementing zero-based budgeting, which will help both with transparency and keeping expenditures under control in a difficult revenue environment.

Highlights of the city's policies and practices

When constructing the budget, management's assumptions rest on internal and external sources of information. Management provides quarterly budget-to-actual reports to the city council, albeit with a lag in the timing of the availability of information, and the city can amend the budget during the year. The city produces and annually updates its long-term financial and five-year capital plans. Its long-term financial plan includes the current year and the upcoming budget year, plus two years beyond the next budget and evaluates base, positive, and negative scenarios. It has formal investment and debt management policies. While the debt policy is comprehensive on many measures, such as governance of swaps and variable-rate debt, it has not been revised to incorporate the city's securitization pledge. To support its reserves, the city has adopted ordinances that limit the use of non-general and general fund reserves for budget-balancing purposes, and its policy is to maintain reserves equal to two months' expenditures. To mitigate against a rapid spend-down of fund balance, Chicago has set a maximum target of 1% of corporate fund expenditures for use of available unassigned fund balance.

Very Weak Budgetary Performance Is Not Expected To Improve In 2020

Chicago's budgetary performance is very weak in our opinion. The city had operating deficits of 1.9% of expenditures in the general fund and of 15.8% across all governmental funds in fiscal 2018.

Fiscal 2019 is projected to end with a positive budgetary variance of $27 million, some of which will be used to offset the 2020 budget gap. However, if the city had made its full ADC contributions for all pension funds in 2019, there would have been no positive variance, given pension contributions were over $1 billion short of full actuarially based statutory payments, a number we reflect in the city's overall performance, leading to our assessment of very weak performance.

Outside of continued significant underfunding of pension ADCs, the fiscal 2019 budget was largely structurally balanced. The corporate fund, which is the city's main operating fund, closed a $97 million gap plus $114 million in additional expenditures primarily through ongoing revenue and expenditure reductions. It doesn't include additional taxes or fees, but it does capture revenue growth through previously approved tax increases, such as the 911 fee, water and sewer taxes for pensions, and growth in the property tax base. 2019 also included a $10 million deposit into the rainy day fund.

Closing the 2020 budget gap

The $838 million budget hole--or 21.8% of expenditures--in the city's $4.7 billion budget was closed with the use of $515 million in structural solutions ($226 million in revenue enhancements and $289 in expenditure adjustments), and $323 million (6.9% of budgeted expenditures) in one-time sources, with $210 million coming from refunding savings. Such a sizable use of one-time sources and pension underfunding keeps the city's budgetary performance score at very weak. Should the structural imbalance be cured by 2022, as expected, the budgetary performance score would be adjusted accordingly. However, the possibility remains that the size of the gap may be underestimated, which could cause an even sharper pension ramp-up in 2022.

The 2020 gap is made up of $312 million in personnel costs (some of which are one-time back pay amounts); $277 million in pension cost ramp-up; $98 million in debt service; $90 million in settlement costs (which have previously not been built into the budget); and another $61 million in other costs. Budget gaps in recent years have been much lower than this year's gap, and historically the city has used a combination of structural and one-time fixes to balance the budget.

Structural solutions for the 2020 budget came from a variety of sources, but without approval for the RETT from Springfield, Chicago's budget relied on expenditure cuts more than originally anticipated. Cuts included $121 million from departmental budgets; a $60 million offset for the Municipal Employees' Annuity and Benefit Fund (MEABF) contribution for CPS; $43 million use of unassigned fund balance; $40 million in additional personnel adjustments; and $25 million in accounts receivable debt enforcement. New revenue sources were led by $120 million from ground emergency medical transportation and ambulance fee increases; $47 million in rideshare and parking meter charges; $20 million in restaurant tax; and $18 million in a property tax increase for the library.

Chicago Maintains Strong Budgetary Flexibility

Chicago's budgetary flexibility is strong, in our view, with an available fund balance in fiscal 2018 of 26% of operating expenditures, or $959.3 million. The available fund balance includes $306.9 million (8.3% of expenditures) in the general fund and $652.5 million (18% of expenditures) that is outside the general fund but legally available for operations. Over the past three years, the total available fund balance has remained at a consistent level overall, totaling 25% of expenditures in 2017 and 25% in 2016. Negatively affecting budgetary flexibility, in our view, is the city's limited capacity to reduce expenditures. We anticipate that Chicago will maintain current reserve levels, given positive fiscal 2019 variances to date and will maintain reserves in excess of 15% through fiscal 2022

Chicago's combined debt service, pension ADC, and actual OPEB contributions made up nearly 40% of adjusted governmental expenditures in fiscal 2018, while public safety expenses made up approximately 62% of general fund expenses. In our view, the critical nature of these two responsibilities places limits on the city's ability to cut spending broadly. However, Chicago's reserve position and overall very strong liquidity are significant mitigating factors in relation to its high fixed costs.

Very Strong Liquidity Helps Support City Operations

In our opinion, Chicago's liquidity is very strong, with total government available cash at 28.1% of total governmental fund expenditures and 2.5x governmental debt service in 2018. In our view, the city has exceptional access to external liquidity if necessary.

Although under the STSC structure, sales tax distributions from the state are funneled first to the STSC trustee, the timing and segregation have not created liquidity pressures for the city, given its manageable debt service levels, diverse revenue base, and operating liquidity outside of the corporate fund.

As part of a consolidation and cost savings effort, Chicago was able to eliminate $1.4 billion in liquidity facilities in 2019, although it kept $185 million in additional liquidity for emergencies: $100 million in a line of credit, and $85 million in a commercial paper program for Midway airport. The city draws on the line of credit as needed to fund timing mismatches, and feels $100 million is sufficient particularly since the line could be readjusted upward if needed. More comprehensive cash flow forecasting also helps Chicago ensure it has sufficient liquidity on hand.

Very Weak Debt And Contingent Liability Profile Places Significant Pressure On Rating

In our view, Chicago's debt and contingent liability profile is very weak. Total governmental fund debt service is 10.5% of total governmental fund expenditures, and net direct debt is 150.3% of total governmental fund revenue. When debt service carrying charges are combined with pension and OPEB contributions, they totaled 39.5% of governmental fund expenditures in 2018, the highest number among the U.S.' 15 largest cities. In addition, the city's pension funding levels are the weakest among those peers.

Chicago has no plans to issue additional GO debt at this time.

Pension and OPEB

Highlights of the city's pension and OPEB obligations are the following:

- In our opinion, Chicago's large pension and OPEB obligation is a clear credit weakness without a plan in place that we think will sufficiently address the obligation or escalating costs over a reasonable time horizon.
- The city's four pension plans are very poorly funded, and progress to full funding has been delayed during the ramp-up period, resulting in a period of negative amortization.
- Chicago recently reduced its large OPEB costs, though there is ongoing legal risk that these reductions could be undone. We expect annual cost escalation due to the lack of prefunding through an OPEB trust.

In 2018, Chicago's combined required pension and actual OPEB contributions totaled 29.0% of total governmental fund expenditures, which we view as very high. Of that amount, 28.2% represented required contributions to pension obligations, and 0.8% represented OPEB payments. The city made 49% of its annual required pension contribution in that year, the amount required by statute, but much lower than what would be necessary to forestall negative amortization.

While the mayor has discussed being part of any statewide pension reform, Chicago's current budget does not include legislated pension savings and the city remains committed to funding pensions according to the current statutory amortization schedule of reaching 90% funding by 2055 (policemen and firemen) and 2058 (municipal employees and laborers) . In the long term, to the extent that the city could either trim liabilities through benefit reductions or secure a dedicated revenue stream toward pensions, this would improve its budgetary sustainability and bode well for longer-term credit stability. However, in our view, these measures might prove challenging to attain and are not likely to occur within the 2022 time frame.

Chicago participates in four pension plans with a combined funded ratio of only 22.9% and a combined net pension liability of $30.1 billion as of Dec. 31, 2018:

- MEABF: 23.3% funded with net pension liability of $12.9 billion.
- Policemen's (PABF): 21.8% funded with net pension liability of $10.4 billion.
- Firemen's (FABF): 16.6% funded with net pension liability of $5.2 billion.
- Laborers' (LABF): 40.6% funded with net pension liability of $1.6 billion.

Liabilities were calculated using plan-specific discount rates. Primarily due to new and cheaper benefit tiers, plan assets are projected under GASB rules to be available to fund future benefit payments for MEABF only, and so liabilities are discounted using the assumed rate of asset return of 7% for MEABF. Discount rates (and assumed returns) for the other plans are as follows: 7.18% (7.25%) for PABF, 6.61% (6.75%) for FABF, and 7.11% (7.25%) for LABF. All of these discount rates are above our guideline of 6.5%, meaning contribution escalation risk due to market volatility is considered to be a risk to the city. In addition, funding progress was not made in the most recent year, as total contributions were less than 75% of static funding for all four plans, meaning the unfunded liabilities would be expected to increase if all other assumptions are met. Total contributions as a percent of our minimum funding progress metric were less than 55% for all plans, which we view negatively.

As of July 2017, Chicago has been statutorily required to fund all four of its pension plans on an actuarial basis. The ADCs for all four plans were determined on a 30-year open, level dollar amortization, a funding mechanism we consider weaker given it is "long" and "open," and therefore, costs will continue to rise. However, the city is not actually funding based on these actuarial calculations but rather is working toward funding the pensions at 90% over 40 years, a feature that further exacerbates the unfunded pension problem. However, even at 90% funding over 40 years, the plan is a marked improvement from the prior funding arrangement under which contributions were not tied to plan liabilities and resulted in severe underfunding. But despite improved funding discipline, the revised funding plan still falls short of providing long-term stability in several respects:

- The lengthy amortization period, coupled with the increasing amortization schedule, amounts to a form of contribution deferral that adds substantial long-term risk to already poorly-funded plans.
- The city will be locked into negative amortization for several decades, meaning that the unfunded liability will continue to rise even as contributions increase, and the plans will remain vulnerable to adverse experience and at risk of insolvency due to recession or other exogenous shocks.

Chicago participates in the following OPEB plans with liabilities measured as of Dec. 31, 2018:

- CBA (collective bargaining agreement): 0% funded with net OPEB liability of $386 million.
- Non-CBA: 0% funded with net OPEB liability of $299 million.

In recent years, Chicago has taken measures to reduce its OPEB liabilities and contain annual costs. As of fiscal 2017, it had fully phased out OPEB for employees other than police or firefighters who retired after 1989, including additional subsidies paid by the pension plans. A 2013 city-commissioned study indicated that, without these reductions, OPEB costs would increase to $307 million in 2018 and $541 million in 2023; the unfunded liability would be $2.1 billion, significantly higher than current contributions or liabilities.

The phase-out is in litigation, but Chicago believes that the terms of benefits to employees hired after 1989 didn't provide them with lifetime health care benefits and don't fall under the state constitution's protections that under no conditions may benefits "be diminished or impaired." OPEB benefits are funded on a pay-as-you-go basis and there is no established trust fund in place to begin prefunding.

Adequate Institutional Framework

The institutional framework score for Chicago is adequate. The institutional framework score assesses the legal and practical environment in which the local government operates. Since state constitutions and state laws generally dictate the terms under which local governments may operate, the score reflects these state-specific elements. Weaknesses in Chicago's institutional framework assessment include a history of delayed state payments that have created unpredictability for local governments, a lack of statutory generally accepted accounting principles audit requirements, and low systemic extraordinary support during times of stress. Strengths include significant revenue-raising flexibility and the inability to file for Chapter 9 bankruptcy protection.

Ratings Detail (As Of November 26, 2019)		
Chicago GO (AGM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO		
Long Term Rating	BBB+/Stable	Affirmed
Chicago GO		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO bnds proj		
Long Term Rating	BBB+/Stable	Affirmed
Chicago GO taxable (BAM) (SECMKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO var rate dem bnds (Neighborhoods Alive 21 Prog) ser 2002B-3, 4, 5		
Long Term Rating	BBB+/Stable	Affirmed
Unenhanced Rating	NR(SPUR)	
Chicago GO VRDBs (Neighborhoods Alive 21 Prog) ser 2002 B-4		
Long Term Rating	BBB+/Stable	Affirmed

Ratings Detail (As Of November 26, 2019) (cont.)		
Unenhanced Rating	NR(SPUR)	
Chicago GO VRDO ser 2005D-2		
Long Term Rating	BBB+/Stable	Affirmed
Unenhanced Rating	NR(SPUR)	
Chicago GO (wrap of insured) (AMBAC & AGM)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (wrap of insured) (AMBAC & AGM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (wrap of insured) (AMBAC & BHAC) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (wrap of insured) (FGIC & BHAC) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (AGM)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (AGM)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (AGM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (AGM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (AGM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (AGM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (AGM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (AGM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (BAM) (SECMKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (BAM) (SECMKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (BAM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (BAM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (BAM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (BAM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed

Ratings Detail (As Of November 26, 2019) (cont.)		
Chicago GO (BAM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (BAM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (BAM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (FGIC)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (FGIC) (AGM) (BAM)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (FGIC) (MBIA) (National)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (MBIA) (National)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO		
Long Term Rating	BBB+/Stable	Affirmed
Chicago GO		
Long Term Rating	BBB+/Stable	Affirmed
Chicago GO		
Long Term Rating	BBB+/Stable	Affirmed
Chicago GO (AGM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago JOINTCRIT		
Long Term Rating	BBB+/Stable	Affirmed
Unenhanced Rating	NR(SPUR)	
Chicago JOINTCRIT		
Long Term Rating	BBB+/Stable	Affirmed
Unenhanced Rating	NR(SPUR)	
Chicago GO		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed

Many issues are enhanced by bond insurance.

S&P Global
Ratings

RatingsDirect®

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Table Of Contents

Chicago; General Obligation

Credit Profile		
Chicago GO (AGM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO		
Unenhanced Rating	BBB+(SPUR)/Stable	Upgraded

Rationale

S&P Global Ratings affirmed its 'BBB+' rating on Chicago's outstanding general obligation (GO) debt. At the same time, we raised our rating on the city's series 1997 GO limited-tax building acquisition certificates to 'BBB+' from 'BBB'. The outlook is stable.

The upgrade on the series 1997 bonds follow the release of our "Issue Credit Ratings Linked To U.S. Public Finance Obligors' Creditworthiness" (published Jan. 22, 2018, on RatingsDirect). The certificates are payable from legally available funds, and are not secured by a debt service levy. We rate the non ad valorem debt on par with our view of Chicago's general creditworthiness as reflected in our rating on the unlimited-tax GO bonds (or issuer credit rating [ICR]). The fungibility of resources and the ability to manage those resources supports our view of the obligor's ability and willingness to pay.

The 'BBB+' rating reflects our view of the city's general creditworthiness, including its:

- Strong economy, with access to a broad and diverse metropolitan statistical area (MSA);
- Weak management, despite "strong" financial policies and practices under our Financial Management Assessment (FMA) methodology;
- Very weak budgetary performance, with an operating surplus in the general fund but an operating deficit at the total governmental fund level in fiscal 2016;
- Strong budgetary flexibility, with an available fund balance in fiscal 2016 of 25% of operating expenditures, but limited capacity to reduce expenditures;
- Very strong liquidity, with total government available cash at 22.6% of total governmental fund expenditures and 1.6x governmental debt service, and access to external liquidity we consider exceptional;
- Very weak debt and contingent liability position, with debt service carrying charges at 13.8% of expenditures and net direct debt that is 126.1% of total governmental fund revenue, as well as a large pension and other postemployment benefit (OPEB) obligation and the lack of a plan to sufficiently address it; and
- Adequate institutional framework score.

Chicago has made significant progress toward stabilizing its financial position—whether through increasing pension contributions and statutory requirements to fund pensions on an actuarial basis, eliminating the practice of pushing out debt payments into the future through "scoop and toss", and reducing reliance on nonrecurring revenues with a commitment to eliminating the structural deficit by 2019. That said, its high fixed costs tied to its liabilities, significant public safety expenses, and distressed overlapping governments will likely continue to challenge Chicago's fiscal sustainability. Thus, we view Chicago as being at a crossroads. While our rating and outlook assume the city will maintain its current course emphasizing structural solutions to address growing liabilities, the practical reality remains that it needs to maintain the political will and resources to address the challenges, or credit quality will also reverse its trajectory.

The city's $35.76 billion net pension liability and 21% overall plan funded ratio will continue to place a weight on it for decades, but one it has the potential to withstand. Even as Chicago executes its pension plan, liabilities will continue to grow, as payments are not set to pay down any unfunded principal for many nears–known as negative amortization. The funds also remain cash-flow negative, meaning that contributions coming in would be significantly lower than benefit payments, exerting a drag on future asset development. But, in our view, growth in funding forestalls plan insolvency and eliminates a contribution spike that would otherwise occur at the time of plan insolvency, as Chicago would be required to pay out benefits entirely from its budget, not from plan assets. To ramp up to actuarially determined contributions (ADCs) based on 90% funding over 2014-2022, the city will need to have increased pension contributions by $1.69 billion, or roughly 20% of its annual budget. In our view, the size of the city's estimated statutorily required funding increase is challenging but achievable. To accomplish this, it has already implemented a dedicated revenue source for the five-year ramp up period. The increase in required payments after the ramp-up period between 2020-2022 is $685 million. Put in perspective, this amount is equivalent to 0.25% of Chicago's estimated full market value or $251 per capita. The city's path to 90% ADC funding will not be without potential challenges—whether related to a possible change in political will, larger-than-estimated ADC requirements, volatility in the financial markets, liabilities of overlapping governments, or the city's need to raise additional funding sources for infrastructure and services. We view the assumptions used to value plan liabilities as somewhat optimistic, indicating that costs are likely to be higher than currently projected. Finally, the plans' low funded ratios leave them more exposed to certain risks including investment return risk, as benefits paid out in any given year are a significant portion of the total plan assets on hand and introduce additional liquidity constraints.

Federal tax reform has the potential to create both challenges and opportunities for Chicago. Broadly speaking, across local governments, changes to mortgage interest deductions and state and local tax deductions under federal tax reform (capped at $10,000), the loss of tax savings capitalized into property values, and lower home ownership incentives could lead to declining property values in high market value areas. This could result in weaker tax bases, higher tax rates, and political resistance to levy increases as residents, in turn, face higher federal and state taxes. Chicago may consider increases to its property taxes over the medium term to finance its growing liability costs, and federal tax reform could make such a proposal less palatable. At the same time, the city retains a significant residential, commercial and industrial tax advantage relative to most surrounding communities in Cook County and the collar counties. Lower tax rates compared with the suburbs or coastal cities could incentivize people and businesses to move to the city.

The city's direct financial connection to Chicago Public Schools (CPS) is currently and has historically been limited, but the entities share tax bases, and the condition of the school district is tied to the performance of the city's economy. Recognizing the importance of CPS to the city and its weak financial position, city officials voiced earlier in 2017 that if necessary, they would provide an undisclosed level of support for CPS. CPS' financial condition has somewhat stabilized, in part because the state has agreed to pick up more of its pension costs on a recurring basis and legislation has increased the district's property tax levy to support pension costs by $130 million ($48 per capita) in 2018. In our view, this reduces the likelihood of near-term city financial support for the district. However, CPS' stability could be temporary because of its extremely weak liquidity and its vulnerability to unexpected variances in its cash flow forecast. The potential for the state's own financial problems to weaken the district also remains a concern. Chicago's fiscal 2018 budget includes $80 million to cover CPS security costs, but all but $14 million is funded through declared tax-increment financing (TIF) surplus revenues. CPS' proportionate share of TIF surplus revenues does not deviate from the city's existing intergovernmental TIF surplus sharing strategy, and CPS has received similar proportions of declared TIF surplus in recent years. While the city has not traditionally financed CPS operations from its corporate fund, the support accounts for less than 0.4% of corporate fund expenditures, and given the small size, in our view, it does not significantly increase the linkage between city and CPS finances.

Thus far, the state of Illinois' financial challenges have had a limited direct effect on the city. Chicago's state-distributed revenues consist of a portion of its sales and use, income, personal property replacement, and motor fuel taxes. Forecasted fiscal 2017 state sales taxes accounted for $370.4 million, or approximately 9.9% of Chicago's corporate fund--its main operating fund--revenue, and the state has not disrupted these payments despite its history of late budgets and has not altered the distribution formula. Chicago's share of income taxes, or local government distribution fund (LGDF) revenues, which accounted for $250.1 million, or 6.7% of corporate fund revenue, can vary with changes to the state's personal and corporate income tax rates, which the state has adjusted three times since 2011. Most recently, in July 2017, the state decreased the LGDF distribution formula and made an additional 10% cut for fiscal 2018 to account for a state direct deposit of tax revenue directly to LGDF. Chicago's share of state distributed personal property replacement tax (PPRT), accounting for $160.4 million, or 4.3% of fiscal 2017 revenues, has fluctuated in recent years, and the state's fiscal 2017 stop-gap budget diverted PPRT revenue from municipalities to community colleges. During fiscal 2016, the state delayed the distribution of motor fuel tax (MFT) revenues until well into the fiscal year due to its budget impasse. The city, which uses these revenues to fund infrastructure, snow removal, and debt service, has been receiving MFT revenues without delay or a reduction since December 2015. We think it is possible that the state's fiscal stress could lead it either decrease or delay distributions in the future, but this is partly mitigated by Chicago's largely locally derived revenue sources, budget stabilization funds, and access to liquidity.

Despite the state's strained fiscal condition, Chicago has continued to attract business and as recently as 2017 has been named the top metro for corporate relocation and No. 1 U.S. city for foreign direct investment. Amazon is also currently considering the city for its second corporate headquarters. We think it is likely that Chicago and its overlapping governments will look to tax increases to address financial challenges. However, the city's tax rate and cost of living remain lower than many peers, and we recognize that people and businesses base location decisions on factors other than taxes. Management of rising pension and debt costs while continuing to invest in services and infrastructure will be key to the city's economic development prospects.

Chicago's diverse revenue stream, levy flexibility, significant reserve balances, and access to external liquidity somewhat mitigate the risk of an economic downturn; however, its low pension funded ratios and high fixed costs leave it vulnerable to a recession. No one industry accounts for more than 20% of the city's economy, and the city's largest operating fund revenue, sales and use taxes, accounts for just 17% of its corporate fund budget. It also maintains $784 million in budgetary stabilization funds reserves, or approximately 21% of its corporate fund expenditures. Recent steps to structurally align its budget also better equip the city to manage a downturn. Yet, Chicago's high fixed costs leave it less flexible to adjust its spending levels to lower revenues, and a downturn would likely exacerbate these costs. Because of the plans' low funded ratios, if investment returns decline to levels near what we saw during the Great Recession, it is possible that pension plan benefit payouts could escalate to pay-as-you-go levels. Based on the plans' fiscal 2016 benefit payout ratios, such an increase in required payments over a two-year period would surpass the city's reserve levels.

Regarding Chicago's recent issuances under the Sales Tax Securitization Corp., the nature of the authorized issuance as refunding bonds, the city's current GO debt funding practices, the size of securitized debt service relative to the budget, and the city's strong liquidity position factor into our analysis that Chicago's current securitization plans would not pressure the GO rating. While the sales tax securitization in itself doesn't affect our view of the city's GO credit quality, we recognize that Chicago's use of the structure reflects its ongoing challenges. Its proposed debt service schedule would provide the majority of the savings upfront for budgetary relief, and the need to restructure existing amortization stems from the city's past "scoop and toss" practices. Additionally, the funding of more debt service from the corporate fund rather than property taxes highlights Chicago's practical constraints on increasing its taxes. That said, we view it as a positive step that the city is using the securitization strategy to manage its debt service costs, end "scoop and toss" a year earlier than planned, and help balance its fiscal 2018 operating budget.

Outlook

The stable outlook reflects our view that Chicago's steps to increase pension plan contributions, manage rising debt service costs, and structurally align its budget stabilize the city's credit position over the one-year outlook horizon. It also reflects our expectation that city will continue progress toward structural budget alignment. In addition, it reflects CPS' and Illinois' near-term financial stability. We anticipate that the city's high and rising fixed costs will continue to weigh on its credit quality but that it will continue to demonstrate both the ability and political will to address these ongoing fiscal challenges.

Downside scenario

We could lower the rating if the city's fixed costs were to rise more than we anticipate or while not anticipated, the city were to use reserves to finance rising pension costs. Particularly given the pension plans' low funded ratios, we view it as possible that required payments could significantly increase if assets deteriorate or liabilities grow faster than expected. We could also lower the rating if the city fails to identify and execute on a timely basis additional steps to ensure the sustainability of its pension contributions.

Additional factors that could contribute to credit deterioration over the one-year outlook horizon:

- Significant issuance of additional debt;
- Changes related to the state or CPS that lead to significant, unexpected changes in the city's revenues or expenditures;
- The city's operating imbalance were to widen without a structural solution; and
- The city were to draw down its reserves.

Upward scenario

We expect that the city's high fixed costs and large unfunded pension liabilities will continue to limit upward rating potential. If the plans adopt updated plan assumptions that, in our view, more accurately represent true pension costs and a demonstrated ability to meet higher, actuarially determined pension costs in a structurally balanced manner could lead us to consider a higher rating. Other factors that we would consider include a structurally aligned operating budget and containment of fiscal pressures related to CPS, the state of Illinois, and other overlapping governments.

Strong economy

We consider Chicago's economy strong. The city, with an estimated population of 2.7 million, is in Cook County in the Chicago-Naperville-Elgin MSA, which we consider broad and diverse. It has a projected per capita effective buying income of 99.9% of the national level and per capita market value of $102,015. Overall, market value grew by 8.8% over the past year to $278.1 billion in 2016. The county unemployment rate was 6.2% in 2016.

Chicago, the nation's third-largest city, is a global business center and transport hub. Its economy is very diverse, with no single industry accounting for more than 14% of the workforce. The city and its surrounding MSA have a more educated population than the nation (43.3% with some higher education compared with 38.8% for the U.S.) and also is home to a larger-than-average population aged 25-34 (14.5% compared with 13.7% for the U.S.). It is repeatedly named a top MSA for corporate relocation and boasts significant cultural attractions, with 54 million visitors in 2016. However, the Chicago MSA's economic growth has been tepid relative to the U.S. and comparable MSAs, and although it remains an economic powerhouse, it is not without challenges. We anticipate that the city will continue to experience positive economic growth over the medium term, albeit slower compared with the nation. The Chicago-Naperville-Elgin MSA real gross metro product grew 0.9% compared with the East North-Central region and U.S. GDP growth of 1.4% and 1.5%, respectively, in 2016, and IHS Markit projects that over 2018-2021, its real gross metro product is expected to grow 1.6% compared with the U.S. GDP at 2.3%.

Weaker demographic trends explain, in part, Chicago's slower growth prospects. For the third consecutive year, its population declined in 2016 by 8,638 residents, or 0.3%, while the MSA's population fell 0.2%. While better employment opportunities or lower cost of living account for some of the population trend, it is also partly due to lower international in-migration, which had helped to offset population losses in past years. Although weaker population trends will likely hamper economic growth, we still anticipate tax base growth, albeit slow. We do not anticipate significant flight in the future given the strengths of the overall Chicago economy.

Fiscal uncertainty could weigh on the city's future growth. While the state has passed a budget for fiscal 2018, it still faces significant projected deficits and maintains large unfunded pension liabilities. CPS received financial relief with the new state budget and funding formula, but it too faces financial challenges. When assessing the financial needs of overlapping entities, combined with the city's own significant unfunded pension liabilities and high fixed costs, it is likely that that either these entities will need to raise taxes or cut services. However, taxes are just one factor many residents and businesses evaluate when choosing where to locate. For example, Chicago's cost of living and doing business remains lower than other comparable cities, and its diverse, highly educated workforce and transportation infrastructure remain attractive traits. Services and amenities, including quality of schools and public safety, are also considerations, and to the degree that financial challenges weigh on service levels, residents and businesses may consider locating elsewhere.

Weak management

We view the city's management as weak, despite "strong" financial policies and practices under our Financial Management Assessment (FMA) methodology, indicating financial practices are strong, well embedded, and likely sustainable. We revised our FMA score to "strong" from "good" to reflect Chicago's demonstrated history of adhering to its reserve policy and expectation that this practice will continue.

While we consider Chicago as having strong financial policies and reporting practices, our weak management score reflects both its structural imbalance and high fixed costs and a lack of what we view as a credible plan to address both issues. We consider the city as having a history of structural imbalance due to its underfunding of pension ADCs, and we anticipate that this structural imbalance will continue. Debt service carrying charges and actuarially determined pension and OPEB contributions are roughly 40% of adjusted total governmental fund expenditures and likely to continue rising. Even once the city reaches full ADC funding, its current debt service schedules and weak pension funded ratios, we anticipate that it will take some time for Chicago's fixed charges to subside.

When constructing the budget, management's assumptions rest on internal and external sources of information. Management provides quarterly budget-to-actual reports to the city council, albeit with a lag in the timing of the availability of information, and the city can amend the budget during the year. The city produces and annually updates its long-term financial and five-year capital plans. Chicago's long-term financial plan includes the current year and the upcoming budget year, plus two years beyond the next budget and evaluates base, positive, and negative scenarios. It has formal investment and debt management policies. To support its reserves, the city has adopted ordinances that limit the use of nongeneral and general fund reserves for budget-balancing purposes, and its policy is to maintain reserves equal to two months' expenditures. To mitigate against a rapid spend-down of fund balance, Chicago has set a maximum target of 1% of corporate fund expenditures for use of available unassigned fund balance.

Weak budgetary performance

Chicago's budgetary performance is very weak, in our opinion. The city had surplus operating results in the general fund of 1.5% of expenditures, but a deficit result across all governmental funds of negative 24.1% in fiscal 2016.

Our fiscal 2016 budgetary performance calculations include adjusting general fund expenditures to reflect recurring transfers and adjustments to governmental expenditures to reflect what we view to be a more accurate representation of Chicago's ongoing costs. In fiscal 2016, Chicago transferred $63.7 million from the general fund to the bond, note redemption, and interest fund to pay debt GO debt service. The city pays the majority of its GO debt from a dedicated property tax levy, and as part of its plan to eliminate "scoop and toss" it is financing part of rising debt service costs through general fund transfers for property tax relief. We expect that this transfer will be recurring, and the city's 2017 and 2018 budgets include transfers of $123 million and $118 million, respectively. We also adjusted total governmental funds expenditures by $1.6 billion to reflect what the city's expenditures would be if it was funding full ADCs. Additionally, we adjusted for a one-time savings of $125 million from "scoop and toss" in 2016 and $2.5 million for expenses paid from enterprise funds.

According to our criteria, the final rating is capped at 'BBB+' when the entity has structural imbalance and we do not view management as having a credible plan to adequately address the imbalance. For this purpose, structural imbalance is determined over a four-year horizon (past two years, current year, and next fiscal year). Although Chicago has made significant improvements in pension funding and has identified funding sources for contribution increases over the five-year ramp-up period, eliminated reliance on "scoop and toss" in its fiscal 2018 budget, and decreased reliance on one-time budget closing measures, we still consider its budget structurally misaligned. Based on the city's ramp-up schedule, we expect that it will continue to significantly underfund ADCs over fiscal 2018-2019. Our calculations of the size of this imbalance are based on the city's fixed ramp-up schedule and the pension plans' fiscal 2016 ADC calculations. In our opinion, assumptions used for the plans are optimistic and likely understate the size of the gap. We anticipate that we will continue to view the city as structurally imbalanced until its funding levels are more in line with a prudent ADC.

While the city has identified a multi-year plan to address its pensions, the size of required pension contributions is significant, likely to rise more than current projections, and creates vulnerabilities. Our view of the city's progress on structural imbalance would also take into account whether the city continues to close its corporate fund budget through ongoing sources and maintains its commitment to the end of "scoop and toss" while addressing its pensions.

In fiscal 2017, Chicago balanced its corporate fund budget (the city's main operating fund) on a budgetary basis, and as of its most recent annual financial analysis, it was projecting a $10.5 million, or 0.3% corporate fund surplus. The budget addressed a $137 million, or 3.8%, budget gap, partly with a $37 million use of the unassigned general fund balance. Other measures that we consider one-time in nature or behave less predictably, include $3.5 million of land sale proceeds, $40.5 million of TIF surplus revenues and $86.4 million from sweeping aging revenue accounts and treasurer investment reforms. The budget also included $160 million savings from "scoop and toss" debt restructuring. The city made room in its 2017 budget to accommodate an additional $123 million of GO debt service payments that would have been funded through the "scoop and toss" approach as part of its plan to eliminate the practice.

Chicago closed a $114. 2 million budget gap for fiscal 2018 and ended the practice of pushing out debt service payments through "scoop and toss." In addition to a $37 million use of carryover corporate fund balance, gap-closing measures include:

- Cutting costs and reforming government ($19.35 million),
- Improved fiscal management ($119 million),
- Data-driven enforcement and improved debt collection ($10.8 million),
- Growth of economically sensitive and other revenues ($50.3 million), and
- Loophole closing and revenue enhancements ($38.8 million).

Gap-closing measures are largely structural, although certain revenues or savings may not be achieved at the same rate in future years, particularly those that are economically sensitive. The city budgeted for $94 million in debt service savings from securitization refinancings, much of which is nonrecurring. The proposal uses $25 million of surplus TIF revenues above annual financial analysis estimates, similar to surplus declarations over the past two fiscal years. Per executive order, Chicago has a strategy regarding how to declare and apply surplus TIF revenues, and we expect that the current administration will continue current practices. While some revenues may be nonrecurring, their use is small relative to the size of the corporate fund budget.

Absent any fiscal 2018 budget reforms, the city projects $212.7 million and $330.3 million budget gaps for fiscal years 2019 and 2020, respectively, and to the extent that any of these measures prove nonrecurring, they do not mitigate projected gaps. Should economic growth projections fall short of the base outlook, operating gaps could grow significantly. Adding to our concerns about projected future gaps, following five-year ramp-up periods, per revised statute, Chicago has yet to identify funding sources to address significant statutory pension contribution increases as it is required to fund the full ADC for police and fire pension funds in fiscal 2020 and municipal and laborers' plans in 2022. The city has forecasted that police and fire pension costs will increase by $297.3 million, or 36% in 2020, and municipal and laborers' plan costs will grow by $330.4, or 50% in fiscal 2022. These pension funding needs, coupled will any other ongoing structural gaps, will continue to weigh on our view of the city's budgetary performance until addressed.

Strong budgetary flexibility

Chicago's budgetary flexibility is strong, in our view, with an available fund balance in fiscal 2016 of 25% of operating expenditures, or $886.1 million. The available fund balance includes $245.9 million (6.9% of expenditures) in the general fund ($154 million unassigned) and $640.2 million (18%) that is outside the general fund but legally available for operations. Impairing budgetary flexibility, in our view, is Chicago's limited capacity to reduce expenditures.

We anticipate that Chicago will maintain current reserve levels given positive fiscal 2017 variances to date and fiscal 2018 projections. The fiscal 2018 budget uses $37 million of unassigned fund balance, which accounts for less than 1% of the overall corporate budget for 2018, in accordance with the city's fund balance policy. At the same time, it deposits $5 million into the service concession and reserve funds' rainy day fund, as budgeted in the past four fiscal years. It doesn't reduce the city's $500 million of reserves in the long-term Skyway fund or $120 million in the parking meter fund. The fiscal 2018 budget deposits $5 million into the operating liquidity fund, which had $10 million to end fiscal 2016. It is worth noting that Chicago's reserve position, coupled with its overall very strong liquidity, are significant mitigating factors in relation to its high fixed costs.

Chicago's combined debt service, required pension ADC, and actual OPEB contributions made up nearly 40% of adjusted governmental expenditures in fiscal 2016. Public safety expenses accounted for $2.2 billion, or approximately 63% of general fund expenses in fiscal 2016, and we think that the city's ability to cut spending in this area as somewhat limited, as highlighted by the city's plan to hire 1,000 police officers over 2017-2018.

To meet its ongoing pension obligations, the city may meet resistance to maintain or raise its levels of taxation beyond fiscal 2017. It substantially raised property taxes, with a multiyear tax increase beginning in budget year 2015, and it increased the E911 tax to fund laborers' plan contributions and adopted a water/sewer tax to fund its municipal pension plan contributions. Although the city has taxing flexibility owing to its home-rule status, it has not historically availed itself of that flexibility in a significant way until it adopted the fiscal 2015 budget. As we evaluate the city's budgetary flexibility and its revenue-raising capability on an ongoing basis, it will be with an awareness of the tax increases occurring at overlapping entities, such as CPS and Cook County, to address their pension contributions.

Very strong liquidity

In our opinion, Chicago's liquidity is very strong, with total government available cash at 20.4% of total governmental fund expenditures and 1.6x governmental debt service in 2016. In our view, the city has exceptional access to external liquidity if necessary.

We note that the city's cost of capital is higher relative to other large municipalities, but because of its history of accessing the market in a variety of ways, we still view its access as exceptional as highlighted by its recent issuances through the Sales Tax Securitization Corp.

Chicago has short-term financing in place that allows it to manage its liquidity needs. The city has up to $510 million in revolving lines of credit with three banks with a current balance of $77.2 million outstanding.

The city's restricted and unrestricted cash, cash equivalents, and investments primarily consist of U.S. agencies, certificates of deposit, and other short-term instruments.

We do not anticipate that Chicago's sales tax securitization will pose a notable cash flow challenge despite the fact that sales taxes account for 17% of the 2018 corporate fund budget and 6% of its overall 2018 all fund budget. Chicago currently receives sales tax revenues from the state comptroller on a monthly basis. The flow of funds under the sales tax securitization indenture traps all sales taxes owed to the city until corporation operating expenses are met and 100% of annual principal and interest requirements are on deposit with the trustee before residual revenues flow to the city. Put in perspective relative to the city's overall budget and liquidity, the withholding of sales taxes appears manageable. The city has $20 million in operating liquidity, an unassigned fund balance of $116 million, $120 million in the parking meter fund, and $500 million in the long-term Skyway fund that it could use to cover any cash flow deficiencies caused by monthly sales tax withholdings.

Very weak debt and contingent liability profile

Debt. In our view, Chicago's debt and contingent liability profile is very weak. Total governmental fund debt service is 12.5% of total governmental fund expenditures, and net direct debt is 126.1% of total governmental fund revenue. Overall net debt is 9.4% of market value.

Chicago has demonstrated active financial management with respect to its debt portfolio that lessened its exposure to payment provisions. It recently converted all of its GO, sales tax, and water and wastewater variable-rate debt to fixed rate, and terminated associated swaps to eliminate its exposure to contingent liabilities and payment provisions. Chicago has no plans to issue tax-backed new-money bonds in 2018.

Chicago's authorized $3 billion sales tax securitization issuance channels pledged sales tax revenues to a lockbox structure, unavailable to fund city operations or GO debt service until debt service needs on the securitized bonds have been met. When considering Chicago's capacity to pay its GO bonds, we look at its debt burden relative to its tax base and budget. Given that the planned securitized bonds are refunding bonds structured to achieve savings, we do not anticipate these ratios weakening. Without the refunding, Chicago's GO annual debt service costs are structured to increase significantly over the next three years, largely as a result of the city's past practice of "scoop and toss" or pushing out debt service payments into the future. For fiscal 2018, debt service on the property tax GO bonds is scheduled to increase by 18%, and then by 24% to a peak of $813 million in fiscal 2019. Rather than raising the property tax levy, the city has recently funded increasing debt service costs through its corporate fund. In fiscal 2017, it budgeted for $123 million of corporate fund revenues to fund GO debt service, and the proposed fiscal 2018 budget includes $118 million in corporate fund revenues for GO debt, which would have been higher without the estimated $94 million in savings from the proposed securitization bonds. City officials have explained that they don't currently have any plans to increase the debt service levy beyond annual new property and equalized assessed value growth for existing GO debt, meaning that excess debt service costs would continue to be funded through its corporate fund.

Regardless of whether or not the GO bonds would remain outstanding, the administration planned to fund rising debt service costs from the corporate fund, or the same source as the securitized bonds. Therefore, the effects of rising debt service on the city's operations are generally the same, with some budget relief from the estimated interest cost savings.

Pension and OPEBs. In our opinion, a credit weakness is Chicago's large pension and OPEB obligation, without a plan in place that we think will sufficiently address it without placing significant pressure on the city. The city's combined required pension and actual OPEB contributions totaled 27.7% of total governmental fund expenditures in 2016, which we view as quite high. Of that amount, 26.6% represented required contributions to pension obligations, and 1.1% represented OPEB payments. The city made 67% of its annual required pension contribution in 2018. The funded ratio of the largest pension plan is extremely low at 19.0% on a GASB 67 basis.

As of July 2017, Chicago is statutorily required to fund all four pension plans on an actuarial basis following a five-year ramp. This is a major improvement from the previous statutory requirement which was not based on the size of liabilities and drastically underfunded the plans over time. It has also implemented dedicated funding sources that cover required payments over the five-year ramp period for each plan. However, measures fall short of providing long-term stability to the plans because they rely on an ADC that targets 90% funding after 40 years. Long 30-year amortizations have been one of the primary causes of pension underfunding nationwide and, in our view, are a mechanism for deferring contributions and funding progress at the expense of future taxpayers – extending this to 40 years and lowering the target only compounds these risks. They also currently do not identify how larger contributions in and beyond 2020, after the ramp-up period ends, will be accommodated and rely on optimistic assumptions in setting those anticipated contributions.

Table 1

Summary of Chicago's Pension Plans

Fund	Dedicated Funding Source	Statutory Funding Schedule	Funded Ratio on a GASB 67 Basis*	Net Pension Liability (Bil. $)*
Policemen's	Property tax implemented in 2015	Funding ramp to ADC by 2020, 90% funded by 2055	21.85%	$10.25
Firemen's	Property tax implemented in 2015	Funding ramp to ADC by 2020, 90% funded by 2055	19.79%	$4.13
Municipal Employees'	Utility tax implemented in 2017	Fund ramp to ADC by 2022, 90% funded by 2057	19.05%	$18.86
Laborers'	911 surcharge increase	Fund ramp to ADC by 2022, 90% funded by 2057	31.61%	$2.53

*As of fiscal 2016 audit. ADC--Actuarially determined contribution.

Table 2

Summary of Funding Requirements (Mil. $)

	Policemen's	Firemen's	Municipal Employees'	Laborers'	Total	Increase in Required Payments w/o dedicated funding source
2018	$557.00	$235.00	$344.00	$48.00	$1,184.00	
2019	$579.00	$245.00	$421.00	$60.00	$1,305.00	
2020	$781.60	$339.70	$499.00	$72.00	$1,692.30	$297.30
2021	$801.50	$347.80	$576.00	$84.00	$1,809.30	$28.00
2022	$822.20	$356.40	$866.40	$124.00	$2,169.00	$359.70

Table 2

Summary of Funding Requirements (Mil. $) (cont.)

	Policemen's	Firemen's	Municipal Employees'	Laborers'	Total	Increase in Required Payments w/o dedicated funding source
2023	$842.70	$366.20	$885.90	$126.80	$2,221.60	$52.60

*Source: Chicago 2017 Annual Financial Analysis.

Additionally, the city plans to manage future liabilities through a new package of pension benefits for employees hired on or after Jan. 1, 2017. The new hires will contribute 11.5% of their compensation to the laborers and municipal pension plans, and their pension benefits do not have cost-of-living adjustments. The city's actuarial analysis projects that employee concessions would generate $2 billion in savings over 40 years, which is sizable, but these savings would be back-loaded. In our view, in the near term, we anticipate contributions from new hires would be negligible given slow hiring rates and turnover.

In our view, Chicago's pension reforms forestall immediate credit deterioration by providing short-term stability and predictability to the budget over the five-year ramp-up period. However, even though we expect that these measures are sufficient to avoid the risk of a formidable contribution spike that would kick in if the pension plans were to become insolvent, liabilities will continue to grow. Using a 40-year amortization period to reach a 90% funded ratio locks the city into negative amortization for many years, meaning contributions into the plan won't even cover the interest on the unfunded liability, causing it to continue to grow over that horizon. As a result, we anticipate that the unfunded liability will be larger than the 2016 estimate for at least 30 years to come, leaving the Chicago plans exposed to a daunting amount of liabilities for an extremely long time. Additionally, over the medium term, funds will remain cash-flow negative, meaning contributions coming in will continue to be lower than benefit payments, exerting a drag on future asset development. All of these risk factors could be exacerbated by the next economic recession as Chicago's plan fails to promote funding progress for many years.

In our view, the plans' current estimates of pension contributions after the five-year ramp-up period are on the low end of possible costs based on valuation assumptions that are likely understating liabilities and need updating. Current plan assumptions for the largest plan are based on an experience analysis covering a five-year period ended Dec. 31, 2009, and in our view, do not reflect a conservative perspective on measuring liabilities. The other plans' assumptions are similarly outdated. Specifically, the discount rates of 7.5% and 7.25% assume a stable asset allocation over time, but in reality, funds have been liquidating assets year after year to pay benefits resulting from negative cash flows and likely will not be able to maintain prior levels of illiquid (higher earning) assets, which, as adjusted, should drive down the discount rate. Additionally, the mortality assumptions for 2004 to 2009 to project life expectancy are outdated and likely to significantly increase liabilities when updated.

Chicago has taken measures in recent years to reduce its OPEB liabilities and contain annual costs, but we note it funds its OPEBs on a pay-as-you-go basis and hasn't established a trust fund to prefund benefits. As of fiscal 2017, it had fully phased out OPEBs for employees other than police or firefighters who retired after 1989, including additional subsidies paid by the pension plans. A 2013 city-commissioned study indicated that, without these reductions, OPEB costs would increase to $307 million in 2018 and $541 million in 2023; the unfunded liability would be $2.1 billion, significantly higher than current contributions or liabilities. The phase-out is under litigation, but Chicago argues that the terms of benefits to employees hired after 1989 didn't provide them with lifetime health care benefits and don't fall under the state constitution's protections that under no conditions may benefits "be diminished or impaired." The city still provides OPEB coverage for police and firefighters who retired on or after 1989 and employees who retired before then.

Adequate institutional framework

We recently revised our institutional framework (IF) score for Chicago to adequate from weak. The score adjustment is based on changes in state statute allowing for the city to finance pension plans on an actuarial basis. Prior to recent legislation, we considered the state's statutory requirement that underfunded pensions as tantamount to an unfunded mandate. The change in IF score also reflects further clarity on the city's requirements to produce annual financial statements.

The institutional framework score assesses the legal and practical environment in which the local government operates. Since state constitutions and state laws generally dictate the terms under which local governments may operate, the score reflects these state-specific elements. Weaknesses in Chicago's institutional framework assessment include a history of delayed state payments that have created unpredictability for local governments, a lack of statutory GAAP audit requirements, and low systemic extraordinary support during times of stress. Strengths include significant revenue-raising flexibility and the inability to file for Chapter 9 bankruptcy protection.

Ratings Detail (As Of February 9, 2018)		
Chicago GO		
Long Term Rating	BBB+/Stable	Affirmed
Chicago GO bnds proj		
Long Term Rating	BBB+/Stable	Affirmed
Chicago GO bnds ser 2004 dtd 06/24/2004 due 01/01/2006-2014 2023		
Long Term Rating	BBB+/Stable	Affirmed
Unenhanced Rating	NR(SPUR)	
Chicago GO var rate dem bnds (Neighborhoods Alive 21 Prog) ser 2002B-3, 4, 5		
Long Term Rating	BBB+/Stable	Affirmed
Unenhanced Rating	NR(SPUR)	
Chicago GO VRDBs (Neighborhoods Alive 21 Prog) ser 2002 B-4		
Long Term Rating	BBB+/Stable	Affirmed
Unenhanced Rating	NR(SPUR)	
Chicago GO VRDO ser 2005D-2		
Long Term Rating	BBB+/Stable	Affirmed
Unenhanced Rating	NR(SPUR)	
Chicago GO (wrap of insured) (AMBAC & AGM)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (wrap of insured) (AMBAC & AGM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (wrap of insured) (AMBAC & BHAC) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed

Ratings Detail (As Of February 9, 2018) (cont.)		
Chicago GO (wrap of insured) (FGIC & BHAC) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (AGM)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (AGM)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (AGM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (AGM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (AGM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (AGM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (AGM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (ASSURED GTY)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (BAM) (SECMKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (BAM) (SECMKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (BAM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (BAM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (BAM) (SEC MKT)		
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Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (BAM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (BAM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (BAM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (FGIC)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed

Ratings Detail (As Of February 9, 2018) (cont.)		
Chicago GO (FGIC) (AGM) (BAM)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (FGIC) (MBIA) (National)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (MBIA) (National)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO		
Long Term Rating	BBB+/Stable	Affirmed
Chicago GO		
Long Term Rating	BBB+/Stable	Affirmed
Chicago GO		
Long Term Rating	BBB+/Stable	Affirmed
Chicago GO		
Long Term Rating	BBB+/Stable	Affirmed
Chicago GO (AGM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago JOINTCRIT		
Long Term Rating	BBB+/Stable	Affirmed
Unenhanced Rating	NR(SPUR)	
Chicago JOINTCRIT		
Long Term Rating	BBB+/Stable	Affirmed
Unenhanced Rating	NR(SPUR)	
Chicago GO		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (CIFG)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed

Many issues are enhanced by bond insurance.

S&P Global Ratings

RatingsDirect®

Chicago; General Obligation

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Table Of Contents

Chicago; General Obligation

Credit Profile		
US$850.0 mil GO bnds ser 2019A due 01/01/2049		
Long Term Rating	BBB+/Stable	New
Chicago GO (AGM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed

Rationale

S&P Global Ratings has assigned its 'BBB+' long-term rating to the city of Chicago's series 2019A general obligation (GO) bonds. At the same time, we affirmed our 'BBB+' ratings on the city's outstanding GO bonds. The outlook is stable.

The city's full faith and credit GO pledge secures the bonds. It intends to use the series 2019A bond proceeds to fund capital projects and retire commercial paper (CP).

The 'BBB+' rating reflects our view of the city's general creditworthiness, including its:

- Strong economy, with access to a broad and diverse metropolitan statistical area (MSA);
- Weak management, despite good financial policies and practices under our Financial Management Assessment (FMA) methodology;
- Very weak budgetary performance, with operating deficits in the general fund and at the total governmental fund level in fiscal 2017;
- Strong budgetary flexibility, with an available fund balance in fiscal 2017 of 25% of operating expenditures, but limited capacity to reduce expenditures;
- Very strong liquidity, with total government available cash at 21.1% of total governmental fund expenditures and 1.9x governmental debt service, and access to external liquidity we consider exceptional;
- Very weak debt and contingent liability position, with debt service carrying charges at 10.8% of expenditures and net direct debt that is 161.0% of total governmental fund revenue, as well as a large pension and other postemployment benefit (OPEB) obligation and the lack of a plan to sufficiently address it; and
- Adequate institutional framework score.

We expect that 2019 will be a period of near-term stability for Chicago, but we think that the following three years will test the city's willingness and ability to manage its budget in a sustainable manner. Building on stronger economic growth, dedicated tax increases to finance its four pension plans' required funding ramp-up, substantial anticipated savings from a sales tax securitization to address rising debt service, and absorbing a two-year police hiring surge, Chicago entered fiscal 2019 with a $97.9 million, or 3% corporate fund gap, the narrowest since 2007. Outside of continued significant underfunding of pension actuarially determined contributions (ADCs), the fiscal 2019 budget is largely structurally balanced. However, the city's fiscal 2020 budget will be significantly more challenging. It has yet to identify funding sources for a large increase in police and fire pension contributions in 2020, and we anticipate that new police and fire labor contracts will grow wage expenses beyond baseline assumptions presented in the city's annual financial analysis. By 2023, the city will need an additional $1.2 billion in annual revenues to finance its pension funding ramp. We still view structural solutions to close the outyear gaps as feasible at this time, but if the city were to change course on structural solutions to address its escalating pension costs or its structural imbalance were to notably widen, we could change our view.

Property tax fatigue from five years of tax increases tied to the pension contribution ramp-up period will make structurally closing the fiscal 2020 budget gap even more challenging. A number of revenue options available to the city are either small relative to the gap and budget size, uncertain, or cyclical, and none are immediate. For example, if the Illinois legislature were to legalize recreational marijuana use as part of its fiscal 2020 budget, it will likely be at least a year until recreational dispensaries are licensed and up and running. The timing makes it an unlikely source of significant revenue for Chicago's fiscal 2020 budget, and even when fully implemented, will likely remain a small part of the city's budget (see "Is Marijuana Legalization The Answer To States' Budget Pressures?" published Feb. 21, 2019, on RatingsDirect). Likewise, a new casino and subsequent taxes would need time to implement, and would involve a small and volatile revenue stream. An increase to the real estate transfer tax could be an effective strategy for Chicago in fiscal 2020, but these revenues are tied to the real estate market and are a less reliable revenue stream than property taxes.

Given Illinois' financial climate, we do not expect that the state will increase the local share of state taxes at its own expense. However, under the governor's progressive income tax proposal, Chicago would receive additional local government distributive fund revenues (LGDF), or its share of the state income tax, per the current formula. This differs from when the Illinois general assembly passed income tax increases in 2011 and 2017 but did not distribute additional revenues to local governments. We also expect that the state will have a more collaborative relationship with the city and will be more amenable to legislative assistance. Thus far, the state of Illinois' financial challenges have had a limited direct effect on the city. Chicago's state-distributed revenues consist of a portion of its sales and use, LGDF, personal property replacement (PPRT), and motor fuel taxes (MFT). The city uses sales tax and MFT revenues to support non-corporate fund expenditures, and remaining state shared revenues account for 11% of total budgeted 2019 corporate fund resources. In fiscal 2018, the state decreased the LGDF distribution by 10% and restored a portion in fiscal 2019, resulting in a 5% reduction. The state's fiscal 2017 stop-gap budget diverted PPRT revenue from municipalities to community colleges. During fiscal 2016, the state delayed the distribution of MFT revenues until well into the fiscal year due to its budget impasse, but the city has been receiving MFT revenues without delay or a reduction since December 2015. We think it is possible that the state's fiscal stress could lead it either to decrease or delay distributions in the future, but this is partly mitigated by Chicago's largely locally derived revenue sources, budget stabilization funds, and access to liquidity.

Should the new mayor resurrect the current administration's plans for pension obligation bonds (POBs), it could provide near-term budget relief but at the expense of potentially greater long-term expenses because investment returns could likely fall short of debt service. Generally, we believe that along with the issuance of POBs comes risk. The circumstances that surround an issuance of POBs, as well as the new debt itself, could have implications for the obligor's creditworthiness. S&P Global Ratings views POB issuance as a mechanism for short-term budget relief as a negative credit factor. Depending on the structure of the POBs and whether or not the city would make changes to its pension funding discipline, issuance could have negative rating implications for Chicago. For more detail on how S&P Global Ratings generally views the potential benefits and risks of POBs issued by state and local governments, see "Pension Obligation Bonds' Credit Impact On U.S. State And Local Government Issuers" (published Dec. 6, 2017).

POB considerations aside, the city will need to manage its debt load—whether managing its securitization authority in a way that preserves cash flow, its overall debt capacity, or its infrastructure backlog. The city's total governmental fund debt service was 10.8% of total fiscal 2017 governmental fund expenditures, and it is projected to rise through fiscal 2022, at the same time Chicago is facing pension contribution hikes. Fiscal 2020 GO debt service alone is scheduled to increase $130 million. Given the city's slow amortization, with 33% retired within 10 years, its carrying charges will remain high. Thus far, the city's securitization debt service has been relatively low compared with the budget and has not significantly impaired liquidity. However, a substantial increase in securitized debt, absent a substitute revenue stream, could pressure the city's cash flow.

On top of the looming fiscal 2020 budget gap, confronting crime and the quality of public schools will be critical to the city's financial stability. Chicago's population has declined for the past three years for a variety of reasons, including violence. These policy issues are not just important from a social perspective; they also affect the city's tax base and trust in government—both components of any sustainable fiscal plan.

Chicago's diverse revenue stream, levy flexibility, significant reserve balances, and access to external liquidity somewhat mitigate the risk of an economic downturn; however, its low pension funded ratios and high fixed costs leave it vulnerable to a recession. No one industry accounts for more than 20% of the city's economy. It also maintains $930 million in budgetary stabilization fund reserves, or approximately 25% of its general fund expenditures. Recent steps to structurally align its budget also better equip the city to manage a downturn. Yet, Chicago's high fixed costs leave it less flexible to adjust its spending levels to lower revenues, and a downturn would likely exacerbate these costs. Because of the plans' low funded ratios (26% across plans in fiscal 2017), if investment returns decline to levels near what we saw during the Great Recession, it is possible that pension plan benefit payouts could escalate to pay-as-you-go levels. Based on the plans' fiscal 2017 benefit payout ratios, such an increase in required payments over a two-year period would surpass the city's reserve levels.

Despite the state's strained fiscal condition, Chicago has continued to attract business and has repeatedly been named the top metro for corporate relocation and among the top cities for foreign direct investment. Although we expect Chicago's growth rates will lag peers, its deep and diverse economy will continue to support the current rating. However, the city remains vulnerable in the event of an economic slowdown, with a weakening tax base or downturn in revenues at the same time, and its need to find additional resources to finance rising fixed costs could prove a significant challenge.

Outlook

The stable outlook over the one-year horizon reflects Chicago's progress in stabilizing its pension funds and placing them on a path to actuarial funding. It also reflects the city's narrowing budget gap and steps to more structurally align its budget. Although the quickly approaching pension contribution spikes are ominous, they are not insurmountable, in our view. We also view currently strong economic growth and the potential for a more collaborative relationship with the state as tailwinds as the city formulates its fiscal 2020 budget. We view the current rating level as incorporating the city's lingering structural misalignment and high fixed costs.

That said, significant downside risk to the rating remains. If action to address the city's projected fiscal 2020 budget gap is not timely or the city backslides on its progress toward structural alignment on full actuarial pension funding, S&P Global Ratings could take a negative rating action. Other actions that could result in downward rating pressure include:

- There is no clearly communicated plan to address the pension ramp;
- If a potential POB issuance were to be used for near-term budgetary relief;
- The city were to rely on the use of significant one-time or unreliable revenue streams to address its ongoing budget gap;
- We see increasing evidence of political resistance to raising revenues or an inability to make expenditure cuts;
- Further securitization of state shared revenues for debt service were to result in cash-flow pressures;
- The city's debt metrics were to substantially increase;
- Changes related to the state or Chicago Public Schools (CPS) lead to significant, unexpected changes in the city's revenues or expenditures; and
- The city were to draw down its reserves.

We expect that the city's high fixed costs and large unfunded pension liabilities will continue to limit upward rating potential. If the plans adopt updated plan assumptions that, in our view, more accurately represent true pension costs and a demonstrated ability to meet higher, actuarially determined pension costs in a structurally balanced manner, we could consider a higher rating over the longer term. Other factors that we would consider include a structurally aligned operating budget and containment of fiscal pressures related to CPS, the state of Illinois, and other overlapping governments.

Strong economy

We consider Chicago's economy strong. The city, with an estimated population of 2.7 million, is in Cook County in the Chicago-Naperville-Elgin MSA, which we consider to be broad and diverse. It has a projected per capita effective buying income of 99.1% of the national level and per capita market value of $107,695. The county unemployment rate was 4.2% in 2018. Chicago's preliminary unemployment rate was 3.9% in December 2018, down from a peak of 12.6% in January 2010.

Chicago, the nation's third-largest city, is a global business center and transport hub. The city and its surrounding MSA have a more educated population than the nation (37.4% with some higher education compared with 30.9% for the U.S.) and is also home to a larger-than-average population aged 25-34 (14.5% compared with 13.7% for the U.S.). It is repeatedly named a top MSA for corporate relocation and boasts significant cultural attractions, with 55 million visitors in 2017. However, the Chicago MSA's economic growth has been tepid relative to the U.S. and comparable

MSAs, and although it remains an economic powerhouse, it is not without challenges. According to IHS Markit, the Chicago MSA's projected year-over-year gross metro product grew 2.34% in 2018 compared with 0.72% in 2017. IHS projects that the MSA's growth will slow to 1.67% in 2019, 1.08% in 2020, 0.82% in 2021, and 0.69% in 2022. We anticipate that the city's growth will remain in line with the nation but that growth rates will remain slower. Sluggish growth reflects demographic trends, contraction in retail employment, and a cooling construction sector.

For the third consecutive year, its population declined in 2017 by 3,825, or 0.1%. While better employment opportunities or lower cost of living account for some of the population trend, it is also partly due to lower international in-migration, which had helped to offset population losses in past years. Although weaker population trends will likely hamper economic growth, we still anticipate tax base growth, albeit slow. We do not anticipate significant flight given the strengths of the overall Chicago economy.

Fiscal uncertainty could weigh on the city's future growth. The state faces significant projected deficits and maintains large unfunded pension liabilities. CPS received financial relief with the new state funding formula, but it too faces financial challenges. When assessing the financial needs of overlapping entities, combined with the city's own significant unfunded pension liabilities and high fixed costs, it is likely that that either of these entities will need to raise taxes or cut services. However, taxes are just one factor many residents and businesses evaluate when choosing where to locate. For example, Chicago's costs of living and doing business remain lower than other comparable cities, and its diverse, highly educated workforce and transportation infrastructure remain attractive traits. Services and amenities, including quality of schools and public safety, are also considerations, and to the degree that financial challenges weigh on service levels, residents and businesses may consider locating elsewhere.

Weak management

We view the city's management as weak, despite good financial policies and practices under our FMA methodology, indicating financial practices exist in most areas, but that governance officials might not formalize or monitor all of them on a regular basis. We have revised our FMA score to good from strong to reflect our view that the city's debt policy does not provide meaningful parameters on how much securitized debt the city may issue. For example, the current debt policy does not provide guidelines for the proposed $10 billion POB issuance.

While we consider Chicago as having strong financial policies and reporting practices, our weak management score reflects both its structural imbalance and high fixed costs and a lack of what we view as a credible plan to address both issues. We consider the city as having a history of structural imbalance due to its underfunding of pension ADCs, and we anticipate that this structural imbalance will continue. Debt service carrying charges and actuarially determined pension and OPEB contributions are roughly 40% of adjusted total governmental fund expenditures and likely to continue rising. Even once the city reaches full ADC funding, given its current debt service schedules and weak pension funded ratios, we anticipate that it will take some time for Chicago's fixed charges to subside.

When constructing the budget, management's assumptions rest on internal and external sources of information. Management provides quarterly budget-to-actual reports to the city council, albeit with a lag in the timing of the availability of information, and the city can amend the budget during the year. The city produces and annually updates its long-term financial and five-year capital plans. Chicago's long-term financial plan includes the current year and the upcoming budget year, plus two years beyond the next budget and evaluates base, positive, and negative scenarios. It has formal investment and debt management policies. While the debt policy is comprehensive on many measures, such as governance of swaps and variable-rate debt, it has not been revised to incorporate the city's securitization pledge. To support its reserves, the city has adopted ordinances that limit the use of nongeneral and general fund reserves for budget-balancing purposes, and its policy is to maintain reserves equal to two months' expenditures. To mitigate against a rapid spend-down of fund balance, Chicago has set a maximum target of 1% of corporate fund expenditures for use of available unassigned fund balance.

Very weak budgetary performance

Chicago's budgetary performance is very weak, in our opinion. The city had operating deficits of negative 6.8% of expenditures in the general fund and negative 21.4% across all governmental funds in fiscal 2017. Our fiscal 2017 budgetary performance calculations include adjusting general fund expenditures to reflect recurring transfers and adjustments to governmental expenditures to reflect what we view to be a more accurate representation of Chicago's ongoing costs. In fiscal 2017, the city transferred $123 million from the general fund to the bond, note redemption, and interest fund to pay debt GO debt service and $106 million for the corporate fund share of pensions. It pays the majority of its GO debt from a dedicated property tax levy, and as part of its plan to eliminate "scoop and toss," it is financing part of rising debt service costs through general fund transfers for property tax relief. We expect that this transfer will be recurring. We also adjusted total governmental funds expenditures by $1.4 billion to reflect what the city's expenditures would be if it was funding full ADCs. Additionally, we adjusted for a one-time savings of $160 million from "scoop and toss" in 2017.

Excluding adjustments for underfunding ADCs and on a cash basis, the city's 2018 annual financial analysis projected the corporate fund to end 2018 with a $20.2 million surplus due to strong performance in certain revenue areas and many personnel expenditures projected to end the year below budget.

Outside of continued significant underfunding of pension ADCs, the fiscal 2019 budget is largely structurally balanced. Focusing on the corporate fund, which is the city's main operating fund, it closes a $97 million gap plus $114 million in additional investments through mostly ongoing revenues and expenditure reductions. It doesn't include additional taxes or fees, but it does capture revenue growth through previously approved tax increases, such as the 911 fee, water and sewer taxes for pensions, and growth in the property tax base. After cost-saving initiatives such as cost recovery through charges for services, repurposing vacancies, reducing overall jobs, health care savings, and zero-based budgeting for certain items, corporate fund spending increases $24.5 million to $3.82 billion. It also includes $73.5 million in debt service savings, account sweeps, changes in revenue projections, and tax-increment financing surplus funds, which are routine revenue sources, but fall short of what we consider "ongoing" revenue given uncertainty and annual fluctuations. The budget also includes a $10 million deposit into the rainy day fund.

On top of any gaps related to a carry-forward of the 2019 budget, known cost increases heading into fiscal 2020 include a $280 million increase in police and fire contributions, and any wage and benefit increases resulting from yet-to-be-negotiated police and fire contracts, and rising debt service costs. Currently, the city's fiscal 2020 GO debt service is scheduled to rise $130 million, and the corporate fund will likely supplement the city's property tax levy. At the same time, we anticipate slower economic growth, which could result in weaker revenues.

Despite progress toward structural alignment, we anticipate that we will continue to consider Chicago's overall budget structurally imbalanced until its pension funding aligns with ADCs, which caps the rating at 'BBB+' under our local government criteria. Although Chicago has made significant improvements in pension funding and has identified funding sources for contribution increases over the five-year ramp-up period, eliminated reliance on "scoop and toss" in its fiscal 2018 budget, and decreased reliance on one-time budget closing measures, we still consider its budget structurally misaligned. Based on the city's ramp-up schedule, we expect that it will continue to significantly underfund ADCs over fiscal years 2019-2022. In our opinion, assumed projected ADCs may be optimistic and likely understate the size of the gap. Our view of the city's progress on structural imbalance would also take into account whether it continues to close its corporate fund budget through ongoing sources and maintains its commitment to the end of "scoop and toss" while addressing its pensions.

Strong budgetary flexibility

Chicago's budgetary flexibility is strong, in our view, with an available fund balance in fiscal 2017 of 25% of operating expenditures, or $930.7 million. The available fund balance includes $262.4 million (7.0% of expenditures) in the general fund and $668.3 million (18%) that is outside the general fund but legally available for operations. Impairing budgetary flexibility, in our view, is Chicago's limited capacity to reduce expenditures.

We anticipate that Chicago will maintain current reserve levels given positive fiscal 2018 variances to date and the fiscal 2019 budget. As of the city's 2018 annual financial analysis, it had projected a $20 million corporate fund surplus. The fiscal year 2018 and 2019 budgets call for $5 million and $10 million deposits into the service concession and reserve funds' rainy day fund, respectively.

Chicago's combined debt service, required pension ADC, and actual OPEB contributions made up nearly 40% of adjusted governmental expenditures in fiscal 2017. Public safety expenses accounted for $2.2 billion, or approximately 65% of general fund expenses in fiscal 2017, and we think that the city's ability to cut spending in this area is somewhat limited. Chicago's reserve position, coupled with its overall very strong liquidity, are significant mitigating factors in relation to its high fixed costs.

To meet its ongoing pension obligations, the city may face resistance to maintain or raise its levels of taxation beyond fiscal 2019. It substantially raised property taxes, with a multiyear tax increase beginning in budget year 2015, and it increased the E911 tax to fund laborers' plan contributions and adopted a water/sewer tax to fund its municipal pension plan contributions. Although the city has taxing flexibility owing to its home-rule status, it has not historically availed itself of that flexibility in a significant way until it adopted the fiscal 2015 budget. Current mayoral candidates have voiced opposition to raising city property taxes, particularly given voters' tax fatigue following the recent property tax increases. However, we anticipate that it will likely consider other tax hikes as part of its plan to address outyear budget gaps.

Very strong liquidity

In our opinion, Chicago's liquidity is very strong, with total government available cash at 21.1% of total governmental fund expenditures and 1.9x governmental debt service in 2017. In our view, the city has exceptional access to external liquidity if necessary. The city's restricted and unrestricted cash, cash equivalents, and investments primarily consist of U.S. agencies, certificates of deposit, and other short-term instruments.

Chicago has short-term financing in place that allows it to manage its liquidity needs. The city has $510 million of lines of credit with three banks and a $400 million GO CP program. The drawn facility balance as of 2017 year-end is the annual library draw, $78.5 million, which is paid annually as property taxes are received by October. The city has letter of credit (LOC) agreements with two banks to support the CP program. Certain liquidity facilities have rating triggers if another rating agency were to lower Chicago's GO rating below investment grade. We believe Chicago's history of renegotiating with liquidity facility providers would likely allow it to avoid an acceleration event.

The flow of funds under the sales tax securitization indenture traps all sales taxes owed to the city on a monthly basis until corporation operating expenses are met and 100% of annual principal and interest requirements are on deposit with the trustee before residual revenues flow to the city. In our view, Chicago's outstanding sales tax securitization bonds have not created liquidity pressures for the city due to manageable debt service levels, its diverse revenue base, and operating liquidity outside of the corporate fund. The city has $20 million in operating liquidity, an unassigned fund balance of $156 million, $668 million in asset lease and concession reserves that it could use to cover any cash-flow deficiencies caused by monthly sales tax withholdings. If it were to securitize substantial additional corporate fund revenues without a substitute revenue stream, we believe that cash flow could be pressured.

Very weak debt and contingent liability profile

Debt. In our view, Chicago's debt and contingent liability profile is very weak. Total governmental fund debt service is 10.8% of total governmental fund expenditures, and net direct debt is 161.0% of total governmental fund revenue. Overall net debt is moderately high at 8.1% of market value, and amortization is slow with 33% to be retired within 10 years. The city's GO debt service is scheduled to increase significantly in fiscal 2020—up $130 million over fiscal 2019. Chicago has not identified additional tax-supported borrowing plans for capital. The city is considering a $10 billion POB that would significantly weaken its debt metrics.

Pension and OPEBs. In our opinion, a credit weakness is Chicago's large pension and OPEB obligation, without a plan in place that we think will sufficiently address it without placing significant pressure on the city. Its combined required pension and actual OPEB contributions totaled 28% of total governmental fund expenditures in 2017, which we view as quite high. Of that amount, 27% represented required contributions to pension obligations, and 1% represented OPEB payments. As of the 2017 actuarial valuation, Chicago's four pension funds—covering municipal employees, fire, police, and laborers—had a weighted funded ratio of only 26.4% and a combined net pension liability of $27.5 billion. The city made 42.3% of its annual required pension contribution in 2017.

Chicago's 2017 comprehensive annual financial report (CAFR) includes several important changes, a few of which we note here. The combined net pension liability across all plans fell by approximately $7.7 billion in 2017, due primarily to revisions in the discount rates for the municipal employees' plan (to 7% from 3.9% in 2016) and the laborers' plan (to 7.25% from 4.17%). In the prior year's valuation, the city was required to discount plan liabilities in these two plans using a blended single equivalent discount rate rather than the long-term expected rate of return on assets, reflecting the fact that plan assets were projected to run out under the prior funding practice. With the implementation of the funding ramp, however, plan assets are projected to be available to meet future commitments, and so the city is allowed under GASB rules to discount the plans' liabilities by the expected rate of return, resulting in a lower calculated liability. Still, the funding structure continues to cause negative amortization, leaving Chicago vulnerable to adverse experience and exogenous shocks. Apart from the new discount rates, the 2017 valuations reflect updated assumptions, which are generally more conservative than in the prior valuation, and show a strong year of investment performance, much in line with what we've observed elsewhere.

As of July 2017, Chicago has been statutorily required to fund all four of its pension plans on an actuarial basis following a five-year ramp-up period, and it has dedicated funding sources to cover the higher contributions through that period. While a marked improvement over the prior funding arrangement, under which contributions were not tied to plan liabilities and resulting in severe underfunding, the revised funding plan still falls short of providing long-term stability in several respects. Most notably, the ADC for each plan is structured to reach 90% funding after 40 years. The lengthy amortization period, coupled with a low funding target, amounts to a form of contribution deferral that adds substantial long-term risk. The city will be locked into negative amortization for several decades, meaning that the unfunded liability will continue to grow even as contributions increase, and the plans will remain vulnerable to adverse experience and at risk of insolvency in a recession or market downturn. Furthermore, the city has yet to explicitly identify how it will fund the fairly sizable contribution hikes that occur beyond the initial ramp-up period.

Additionally, the city plans to manage future liabilities through a new package of pension benefits for employees hired on or after Jan. 1, 2017. The new hires will contribute 11.5% of their compensation to the laborers and municipal pension plans, and their pension benefits do not have cost-of-living adjustments. The city's actuarial analysis projects that employee concessions would generate $2 billion in savings over 40 years, which is sizable, but these savings would be back-loaded. In our view, in the near term, we anticipate contributions from new hires would be negligible given slow hiring rates and turnover.

Chicago has taken measures in recent years to reduce its OPEB liabilities and contain annual costs, but we note it funds its OPEBs on a pay-as-you-go basis and hasn't established a trust fund to prefund them. As of fiscal 2017, it had fully phased out OPEBs for employees other than police or firefighters who retired after 1989, including additional subsidies paid by the pension plans. A 2013 city-commissioned study indicated that, without these reductions, OPEB costs would increase to $307 million in 2018 and $541 million in 2023; the unfunded liability would be $2.1 billion, significantly higher than current contributions or liabilities. The phase-out is under litigation, but Chicago argues that the terms of benefits to employees hired after 1989 didn't provide them with lifetime health care benefits and don't fall under the state constitution's protections that under no conditions may benefits "be diminished or impaired." The city still provides OPEB coverage for police and firefighters who retired on or after 1989 and employees who retired before then.

Adequate institutional framework

The institutional framework score for Chicago is adequate. The institutional framework score assesses the legal and practical environment in which the local government operates. Since state constitutions and state laws generally dictate the terms under which local governments may operate, the score reflects these state-specific elements. Weaknesses in Chicago's institutional framework assessment include a history of delayed state payments that have created unpredictability for local governments, a lack of statutory GAAP audit requirements, and low systemic extraordinary support during times of stress. Strengths include significant revenue-raising flexibility and the inability to file for Chapter 9 bankruptcy protection.

Related Research

- S&P Public Finance Local GO Criteria: How We Adjust Data For Analytic Consistency, Sept. 12, 2013

- Incorporating GASB 67 And 68: Evaluating Pension/OPEB Obligations Under Standard & Poor's U.S. Local Government GO Criteria, Sept. 2, 2015

Ratings Detail (As Of March 14, 2019)		
Chicago GO		
Long Term Rating	BBB+/Stable	Affirmed
Chicago GO		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO bnds proj		
Long Term Rating	BBB+/Stable	Affirmed
Chicago GO bnds ser 2004 dtd 06/24/2004 due 01/01/2006-2014 2023		
Long Term Rating	BBB+/Stable	Affirmed
Unenhanced Rating	NR(SPUR)	
Chicago GO taxable (BAM) (SECMKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO var rate dem bnds (Neighborhoods Alive 21 Prog) ser 2002B-3, 4, 5		
Long Term Rating	BBB+/Stable	Affirmed
Unenhanced Rating	NR(SPUR)	
Chicago GO VRDBs (Neighborhoods Alive 21 Prog) ser 2002 B-4		
Long Term Rating	BBB+/Stable	Affirmed
Unenhanced Rating	NR(SPUR)	
Chicago GO VRDO ser 2005D-2		
Long Term Rating	BBB+/Stable	Affirmed
Unenhanced Rating	NR(SPUR)	
Chicago GO (wrap of insured) (AMBAC & AGM)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (wrap of insured) (AMBAC & AGM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (wrap of insured) (AMBAC & BHAC) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (wrap of insured) (FGIC & BHAC) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (AGM)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (AGM)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (AGM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (AGM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (AGM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed

Ratings Detail (As Of March 14, 2019) (cont.)		
Chicago GO (AGM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (AGM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (AGM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (BAM) (SECMKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (BAM) (SECMKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (BAM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (BAM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (BAM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (BAM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (BAM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (BAM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (BAM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (FGIC)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (FGIC) (AGM) (BAM)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (FGIC) (MBIA) (National)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO (MBIA) (National)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed
Chicago GO		
Long Term Rating	BBB+/Stable	Affirmed
Chicago GO		
Long Term Rating	BBB+/Stable	Affirmed
Chicago GO		
Long Term Rating	BBB+/Stable	Affirmed
Chicago GO (AGM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed

Ratings Detail (As Of March 14, 2019) (cont.)		
Chicago JOINTCRIT		
Long Term Rating	BBB+/Stable	Affirmed
Unenhanced Rating	NR(SPUR)	
Chicago JOINTCRIT		
Long Term Rating	BBB+/Stable	Affirmed
Unenhanced Rating	NR(SPUR)	
Chicago GO		
Unenhanced Rating	BBB+(SPUR)/Stable	Affirmed

Many issues are enhanced by bond insurance.

S&P Global
Ratings

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Summary:

Chicago; General Obligation

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Table Of Contents

Summary:

Chicago; General Obligation

Credit Profile		
Chicago GO (AGM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Negative	Outlook Revised

Rating Action

S&P Global Ratings revised its rating outlook on Chicago's general obligation (GO) debt to negative from stable and affirmed its 'BBB+' rating on the debt. The outlook revision reflects the unprecedented credit pressure facing the city from the rapid deterioration in the U.S. economy caused by health and safety measures relating to the COVID-19 pandemic and the related recession.

Although we expect that Chicago should be able to withstand a moderate amount of economic pressure, the latest revisions to S&P Global Economics' U.S. forecast indicates a much steeper economic drop and a longer recovery than originally anticipated (see: "An Already Historic U.S. Downturn Now Looks Even Worse," published April 16, 2020, on RatingsDirect). The sharp economic decline and expected revenue deterioration, along with pressures related to the pandemic, will make the city's path to structural balance more challenging. Ramping up to full actuarial pension funding will likely be more difficult as well, because equity market declines could necessitate escalating contributions.

Negative Outlook

While our outlook horizon extends for up to two years, we believe the risks facing the city over the next year will be key to future credit direction. If progress toward structural budget balance and full actuarial funding of pensions is impeded due to the recession, we could lower the rating. A sustained deterioration in liquidity or reserves could also negatively pressure the rating. A revision to a stable outlook would be predicated on successful implementation of a structurally sound approach to balancing operations in light of the economic pressures, particularly keeping pension funding on track.

Credit Opinion

Financial performance will be dampened by recessionary pressures

In late 2019, Chicago closed its initial 2020 budget gap through a combination of one-time and structural actions, ultimately using $323 million in one-time measures. The city used these measures to buy time to implement structural solutions to fully align its operations by fiscal 2022. Although our view of the city will evolve as the depth and breadth of the recession become clearer, we will monitor how close Chicago comes to achieving structural balance by fiscal 2022, when the full actuarially based statutory payment ramp-up for all four pension plans will occur.

Chicago has been hit hard by the pandemic and has ramped up a variety of measures to address the needs of its citizens. It currently estimates the costs incurred at about $150 million. Chicago already received its the Coronavirus Aid Relief and Economic Security distribution of $470 million and because much of the costs incurred will be covered by Federal Emergency Management Agency reimbursements, it has ample liquidity to address unbudgeted expenditures related to the pandemic. In our view, Chicago also has adequate liquidity to weather a disruption in revenues given total available cash of $2 billion at year-end 2018. However, the city relies on a variety of economically sensitive revenues to support operations, and sales, transaction, transportation, recreation, and income taxes made up 35% of key operating revenues in 2018, although not all components of those taxes are equally susceptible to economically driven variations (for more details, please see "COVID-19: A Closer Look At How It Affects 10 Major U.S. Cities," published April 2, 2020). The city uses property taxes primarily to support its debt service payments, and although it has room to raise the levy, has resisted doing so, instead finding other new revenue sources. Two of the city's new proposed revenues remain in the mix--the Real Estate Transfer Tax and a tax on expanded casino gambling--but even if they are implemented, the recession could cause collections to be lower than was anticipated pre-recession.

The city has held back its ability to raise property taxes as a measure of last resort. In our view, in such a difficult economic climate with record-high unemployment levels, raising the property tax to solve the equation becomes even more problematic for the long-term financial and economic health of the city and its citizens. With these practical and political limitations, the state of the economy and the onset of the recession have made the city's challenges even greater.

Fiscal uncertainty from Illinois (GO debt rating: BBB-/Negative), could also pose additional challenges for Chicago. In our view, projections for a very large budget gap at the state level means that the city cannot rely on the state for any additional support, and also increases the chance for a shift in revenue-sharing payments to local units of government. This happened most recently during the state budget impasse in 2015-2017. In 2018, 6.3% of the city's general operating revenues were from the Local Government Distributive Fund (derived from state sales taxes) and another 6.3% was from state sales tax, which are susceptible to economic fluctuation and can be reduced or delayed by the state.

Pension pressures will be exacerbated by volatile economy

For Chicago, the absolute essentiality of staying on the path to ramp-up pension contributions to actuarially determined levels by 2022 leaves very little room for error, and thus, the tumultuous market conditions expected during a recession do not bode well.

Chicago participates in four pension plans with a combined funded ratio of only 22.9% and a combined net pension liability of $30.1 billion as of Dec. 31, 2018. In 2018, the city's combined required pension and actual other postemployment benefits (OPEB) contributions totaled 29.0% of total governmental fund expenditures, which we view as very high and limits overall budgetary flexibility. When debt service is added to pension and OPEB, fixed costs rose to nearly 40% of adjusted governmental expenditures in fiscal 2018.

The city is entering this period of market volatility with a higher cash-to-investments ratio in its pension funds due to its need to keep short-term investments on hand to pay out benefits. However, given the magnitude of the problem and reliance on market returns to stay on track with pension funding, it is possible that even if the city takes all the right steps to align expenditures with revenue, effects from COVID-19 and the recession could still result in fund performance that sets funding levels further back.

For additional information, please see the analysis published Nov. 26, 2019.

Ratings Detail (As Of April 24, 2020)		
Chicago GO		
Long Term Rating	BBB+/Negative	Outlook Revised
Chicago GO		
Long Term Rating	BBB+/Negative	Outlook Revised
Unenhanced Rating	NR(SPUR)	
Chicago GO		
Long Term Rating	BBB+/Negative	Outlook Revised
Chicago GO		
Long Term Rating	BBB+/Negative	Outlook Revised
Chicago GO		
Long Term Rating	BBB+/Negative	Outlook Revised
Chicago GO		
Long Term Rating	BBB+/Negative	Outlook Revised
Chicago GO		
Long Term Rating	BBB+/Negative	Outlook Revised
Unenhanced Rating	NR(SPUR)	
Chicago GO		
Unenhanced Rating	BBB+(SPUR)/Negative	Outlook Revised
Chicago GO VRDO		
Long Term Rating	BBB+/Negative	Outlook Revised
Unenhanced Rating	NR(SPUR)	
Chicago GO VRDO		
Long Term Rating	BBB+/Negative	Outlook Revised
Unenhanced Rating	NR(SPUR)	
Chicago GO VRDO		
Long Term Rating	BBB+/Negative	Outlook Revised
Unenhanced Rating	NR(SPUR)	
Chicago GO (wrap of insured) (AMBAC & AGM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Negative	Outlook Revised
Chicago GO (wrap of insured) (AMBAC & BHAC) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Negative	Outlook Revised
Chicago GO (wrap of insured) (FGIC & BHAC) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Negative	Outlook Revised
Chicago GO (AGM)		
Unenhanced Rating	BBB+(SPUR)/Negative	Outlook Revised

Ratings Detail (As Of April 24, 2020) (cont.)		
Chicago GO (AGM)		
Unenhanced Rating	BBB+(SPUR)/Negative	Outlook Revised
Chicago GO (AGM)		
Unenhanced Rating	BBB+(SPUR)/Negative	Outlook Revised
Chicago GO (AGM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Negative	Outlook Revised
Chicago GO (AGM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Negative	Outlook Revised
Chicago GO (AGM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Negative	Outlook Revised
Chicago GO (AGM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Negative	Outlook Revised
Chicago GO (AGM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Negative	Outlook Revised
Chicago GO (AGM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Negative	Outlook Revised
Chicago GO (AMBAC)		
Unenhanced Rating	BBB+(SPUR)/Negative	Outlook Revised
Chicago GO (BAM) (SECMKT)		
Unenhanced Rating	BBB+(SPUR)/Negative	Outlook Revised
Chicago GO (BAM) (SECMKT)		
Unenhanced Rating	BBB+(SPUR)/Negative	Outlook Revised
Chicago GO (BAM) (SECMKT)		
Unenhanced Rating	BBB+(SPUR)/Negative	Outlook Revised
Chicago GO (BAM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Negative	Outlook Revised
Chicago GO (BAM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Negative	Outlook Revised
Chicago GO (BAM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Negative	Outlook Revised
Chicago GO (BAM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Negative	Outlook Revised
Chicago GO (BAM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Negative	Outlook Revised
Chicago GO (BAM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Negative	Outlook Revised
Chicago GO (BAM) (SEC MKT)		
Unenhanced Rating	BBB+(SPUR)/Negative	Outlook Revised
Chicago GO (FGIC)		
Unenhanced Rating	BBB+(SPUR)/Negative	Outlook Revised

Ratings Detail (As Of April 24, 2020) (cont.)		
Chicago GO (FGIC) (MBIA) (National)		
Unenhanced Rating	BBB+(SPUR)/Negative	Outlook Revised
Chicago GO (FGIC) (National)		
Unenhanced Rating	BBB+(SPUR)/Negative	Outlook Revised
Chicago GO (MBIA) (National)		
Unenhanced Rating	BBB+(SPUR)/Negative	Outlook Revised
Chicago GO (MBIA) (National)		
Unenhanced Rating	BBB+(SPUR)/Negative	Outlook Revised
Many issues are enhanced by bond insurance.		

Bulletin:

COVID-19 And Recession Exert Pressure On Chicago’s 2021 Budget, Extending Structural Imbalance

October 23, 2020

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CENTENNIAL (S&P Global Ratings) Oct. 23, 2020--Chicago's $4.0 billion proposed corporate fund budget released on Oct. 21 aims to fill an estimated $1.2 billion 2021 fiscal year revenue shortfall with both one-time and structural solutions. Approximately 53% of the budget solutions come from one-time measures, primarily $500 million in savings from restructuring outstanding debt. Structural solutions make up about 47% of the gap and include layoffs, a property tax increase and other efficiencies. The 2021 budget is a 9% decrease from 2020's $4.4 billion budget.

Chicago is also using one-time measures to address the nearly $800 million revenue shortfall in 2020. Rather than using reserves as the basis for major one-time solutions in 2020 and 2021, the city is relying on refunding and restructuring outstanding general obligation and sales tax-backed debt issued by the Sales Tax Securitization Corp of Chicago. This approach increases the city's fixed costs and can limit flexibility in the future by elevating the debt burden and extending the final maturity. However, it also allows the city to keep reserves on hand to fill future budget gaps or revenue shortfalls, if needed. Strong and stable reserves are a high point for the credit, and at fiscal year-end 2019 reserves totaled $1.0 billion or 27% of general fund expenditures. Liquidity remains similarly strong with approximately $1.5 billion on hand at any time.

In the current economic and fiscal environment, we expect many issuers who are usually structurally balanced will use some one-time measures to address current and future year shortfalls; in these cases, we evaluate how one-time solutions fit into the issuer's bigger picture for achieving structural balance over the long term. In the case of Chicago, we have long considered the city to be structurally imbalanced given chronic underfunding of its pension contributions. In 2020 the city started contributing the full actuarially determined pension contribution for its police and fire pension funds, but is on a ramp-up for full actuarial funding for municipal and laborers in 2022, currently estimated to be an increase of $1 billion between 2019 and 2022. An expenditure increase of this magnitude would be difficult to tackle at any time, but becomes particularly challenging given current recessionary pressure. The city's ability to absorb the additional pension expenditures and stay on a course to structural balance will be critical to maintaining the rating.

The city structured the 2021 budget with a stated goal of achieving structural alignment. In our view, how the city sets itself up in 2020 and 2021 to meet the challenges of 2022--including the pension ramp-up--is of critical importance to the rating. In April 2020, we revised Chicago's outlook to negative, reflecting our expectation that meeting the pension ramp-up and regaining structural balance was made markedly more difficult by COVID-19 and the recession. If the city's final budget and management's plans to address potential pressures beyond 2021 don't make sufficient progress to return to structural balance, the rating will be pressured further. In our view, a sustained deterioration in liquidity or reserves could also negatively pressure the rating. The city expects to adopt the final budget in late November.

Pension Pressures Remain Acute

As of year-end 2019, Chicago's four funds (police, fire, municipal and laborers) had a combined funding level of 23.6%. When Chicago reaches its full actuarially based statutory payments of $2.25 billion in 2022, it will be nearly $1 billion more than their contributions in 2019. Even with such a sizable contribution increase, it will still only keep the city on pace to fund 90% of the liability over 40 years, which we consider slow. The hefty pension burden puts the city's fixed costs (debt service, full actuarially based pension payments and OPEB pay-go) at an extremely high 47% of total governmental funds expenditures in 2019 In addition, given the magnitude of the problem and reliance on market returns to stay on track with pension funding, it is possible that even if the city takes all the right steps to align expenditures with revenue, effects from COVID-19 and the recession could still result in fund performance that sets funding levels further back.

This report does not constitute a rating action.

CITY OF CHICAGO

DEPARTMENT OF FINANCE

MEMORANDUM

To: The Honorable Pat Dowell
Chairman, Committee on the Budget and Government Operations

From: Reshma Soni
City Comptroller
Department of Finance

CC: Manuel Perez
Mayor's Office of Intergovernmental Affairs

Date: October 28, 2020

Re: Request for Information from Annual Appropriation Committee Hearing

ID#: 27-06 Debt Collection

The following information is provided in response to questions posed at our department's hearing on October 26, 2020 to discuss the proposed 2021 budget.

Alderman Taylor asked for the collection on outstanding debt from last year's budget hearing.

To more efficiently collect debt and take into account debtors' financial circumstances, the Department of Finance has implemented numerous reforms, including: affordable payment plans with extended terms, debt relief, and vehicle immobilization reforms. These changes allow debtors to afford paying down their debt instead of defaulting, thereby improving collections for the City.

The Department of Finance utilizes collection tools to collect outstanding debt for the City, such as: noticing, license and permit holds, vehicle immobilization, referral of debt, and other enforcement actions. For example, in 2019, the City collected $10.3 million in vehicle ticket debt 10 years or older, of which $2.2 million was from the 1990s. For Administrative Hearing judgments, in 2019, the City collected $5.7 million in outstanding debt that was 10 years or older.

As always, please let me know if you have any further questions.

CITY OF CHICAGO

DEPARTMENT OF FINANCE

MEMORANDUM

To: The Honorable Pat Dowell
Chairman, Committee on the Budget and Government Operations

From: Jennie Bennett
Chief Financial Officer
Office of the Mayor

CC: Manuel Perez
Mayor's Office of Intergovernmental Affairs

Date: October 28, 2020

Re: Request for Information from Annual Appropriation Committee Hearing

ID#: 27-07 CTA

The following information is provided in response to questions posed at our department's hearing on October 26, 2020 to discuss the proposed 2021 budget.

Alderman Thompson asked about the effect of the City discontinuing the provision of $16 million of annual rideshare tax revenues to CTA

The 2020 CTA budget was $1.6 billion. The reduction of revenues by $16 million is equivalent to only 1 percent of annual revenues. Therefore, the City does not anticipate such a reduction having a material impact on the operations of CTA.

As always, please let me know if you have any further questions.

CITY OF CHICAGO

DEPARTMENT OF FINANCE

MEMORANDUM

To: The Honorable Pat Dowell
Chairman, Committee on the Budget and Government Operations

From: Reshma Soni
City Comptroller
Department of Finance

CC: Manuel Perez
Mayor's Office of Intergovernmental Affairs

Date: **October 28, 2020**

Re: Request for Information from Annual Appropriation Committee Hearing

ID#: 27-08 Rates

The following information is provided in response to questions posed at our department's hearing on October 26, 2020 to discuss the proposed 2021 budget.

Alderman Cappleman asked what Chicagoans pay for garbage and water, with comparison with surrounding suburbs and major cities. Please see the below table:

	Water Per 1,000 Gallons	**Garbage**
Chicago	$4.08	$9.50 per month per dwelling unit
Houston	$3.14	$1.14 monthly cart fee for 1 trash and 1 recycle bin
Naperville	$7.55	Charges $13.31 monthly for garbage and recycling services. Carts are purchased seperately.
Schaumburg	$10.80	The village pays for the basic cost of the refuse and recycling disposal program. Special pickups, additional cart rental, back-door pickup, or other unique services fees are the responsibility of residents
Los Angeles	Four tier combined residential water and power rate. Do not have way to convert	$36.32 per month for single family dwellings and duplexes
New York City	$5.30	No direct monthly fee
Oak Lawn	$6.50	$21.31 per month for trash, recycle, yard waste

As always, please let me know if you have any further questions.

CITY OF CHICAGO

DEPARTMENT OF FINANCE

MEMORANDUM

To: The Honorable Pat Dowell
Chairman, Committee on the Budget and Government Operations

From: Reshma Soni
City Comptroller
Department of Finance

CC: Manuel Perez
Mayor's Office of Intergovernmental Affairs

Date: **October 28, 2020**

Re: Request for Information from Annual Appropriation Committee Hearing

ID#: 27-09

The following information is provided in response to questions posed at our department's hearing on October 26, 2020 to discuss the proposed 2021 budget.

Alderman Hairston asked for a breakdown of account 0140.

Please see the attached document for the Department of Finance's breakdown of account 0140.

As always, please let me know if you have any further questions.

2021 Budget - Dept. of Finance

Breakdown of Account 0140

Dept	Fund	Org	Org Desctiption	Account	Account Description	Program # and Description	Justification	2021 Budget
27	0075	2855	Central Grants Management	.0140	Professional and Technical Services	012B Grant and Project Accounting	AR Billing workflow and new form in OGM	**84,997**
27	100	2012	Accounting Financial Reporting	.0140	Professional and Technical Services	012A Accounting and Financial Reporting	Consultants to assist with the Financial Statements audit	**50,000**
27	100	2015	Financial Strategy and Ops	.0140	Professional and Technical Services	015A Financial Strategy	Financial Policy: City's independent registered municipal advisor	85,000
		2015	Financial Strategy and Ops	.0140	Professional and Technical Services	015A Financial Strategy	Payroll: Consulting services for program/language writing/programming	50,000
								135,000
27	100	2020	Revenue Services and Operations	.0140	Professional & Technical Services	011D Admin and Planning / Fiscal Admin	Shredding costs for the entire dept., per 2FM recommendation	5,000
		2020	Revenue Services and Operations	.0140	Professional & Technical Services	011E Admin and Planning / Personnel	Personnel: 3rd level grievance hearing costs	1,800
		2020	Revenue Services and Operations	.0140	Professional & Technical Services	0210 Payment Processing	Cashiering: Check verification services	235,200
		2020	Revenue Services and Operations	.0140	Professional & Technical Services	0210 Payment Processing	Cashiering: Armored car services	116,400
		2020	Revenue Services and Operations	.0140	Professional & Technical Services	0220 Tax Policy and Administration	Tax Policy: printing and mailing services to send tax notices and tax discovery mailings	40,500
		2020	Revenue Services and Operations	.0140	Professional & Technical Services	0220 Tax Policy and Administration	Tax Policy: Business Call Center	1,271,239
		2020	Revenue Services and Operations	.0140	Professional & Technical Services	0230 Street Operations	Parking Enforcement: PEO services to write parking tickets during off-hours and weekends	1,980,000
		2020	Revenue Services and Operations	.0140	Professional & Technical Services	0230 Street Operations	Booting: Booting services at airports	575,000
		2020	Revenue Services and Operations	.0140	Professional & Technical Services	0230 Street Operations	Boot release ($35.88/removal) and towing services	595,000
		2020	Revenue Services and Operations	.0140	Professional & Technical Services	0240 Accounts Receivable	Citation Admin: Secretary of State DL suspension fees ($10/ea)	100,000
		2020	Revenue Services and Operations	.0140	Professional & Technical Services	0240 Accounts Receivable	Advanced Collections: Printing and mailing services for advanced collection notices	40,500
								4,960,639
27	200	2015	Financial and Strategy Ops	.0140	Professional & Technical Services	015A Financial Strategy	Financial Policy: City's independent registered municipal advisor	**20,994**
27	200	2020	Revenue Services and Operations	.0140	Professional & Technical Services	0210 Payment Processing	Cashiering: Water portion of check verification services	17,000
		2020	Revenue Services and Operations	.0140	Professional & Technical Services	0210 Payment Processing	Cashiering: Water portion of armored car services	19,000
		2020	Revenue Services and Operations	.0140	Professional & Technical Services	0210 Payment Processing	Web portal/bills/ letter development	2,000
		2020	Revenue Services and Operations	.0140	Professional & Technical Services	0210 Payment Processing	Printing/mailing services for UBR	75,000
		2020	Revenue Services and Operations	.0140	Professional & Technical Services	0240 Accounts Receivable	UBCS: Printing/mailing services	499,069
		2020	Revenue Services and Operations	.0140	Professional & Technical Services	0240 Accounts Receivable	UBCS: Call center costs	3,585,904
		2020	Revenue Services and Operations	.0140	Professional & Technical Services	0240 Accounts Receivable	UBCS: Recorder of Deeds access for address verification services	4,200
		2020	Revenue Services and Operations	.0140	Professional & Technical Services	0240 Accounts Receivable	UBCS: Bank lockbox processing fees	420,000
		2020	Revenue Services and Operations	.0140	Professional & Technical Services	0240 Accounts Receivable	UBCS: RealInfo bankrupcy database access	7,020
		2020	Revenue Services and Operations	.0140	Professional & Technical Services	0240 Accounts Receivable	UBCS: Security guard services	40,000
		2020	Revenue Services and Operations	.0140	Professional & Technical Services	0240 Accounts Receivable	UBCS: Additional staff for call volumes - UBR	1,000,000
								5,669,193
27	314	2015	Financial Strategy and Ops	.0140	Professional & Technical Services	015A Financial Strategy	Financial Policy: City's independent registered municipal advisor	**16,000**
27	314	2020	Revenue Services and Operations	.0140	Professional & Technical Services	0240 Accounts Receivable	UBCS: Web portal/bills/ letter development	2,000
27	314	2020	Revenue Services and Operations	.0140	Professional & Technical Services	0240 Accounts Receivable	UBCS: Printing/mailing services for UBR	75,000
27	314	2020	Revenue Services and Operations	.0140	Professional & Technical Services	0240 Accounts Receivable	UBCS: Additional staff for call volumes - UBR	1,000,000
								1,077,000
27	610	2012	Accounting Financial Reporting	.0140	Professional & Technical Services	012C Enterprise Accounting	Indirect/cost fringe rate study	**10,000**
27	610	2015	Financial Strategy and Ops	.0140	Professional & Technical Services	015A Financial Strategy	Financial Policy: City's independent registered municipal advisor	**26,000**
27	740	2012	Accounting Financial Reporting	.0140	Professional & Technical Services	012C Enterprise Accounting	Indirect/cost fringe rate study	54,650
27	740	2012	Accounting Financial Reporting	.0140	Professional & Technical Services	012C Enterprise Accounting	Consulting/accounting services for audit	15,000
								69,650
27	740	2015	Financial Strategy and Ops	.0140	Professional & Technical Services	015A Financial Strategy	Financial Policy: City's independent registered municipal advisor	**78,000**
27	0B26	2015	Financial Strategy and Ops	.0140	Professional & Technical Services	015A Financial Strategy	Chicago Parking Meter Concession True-up Payments	**500,000**
								12,697,473

CITY OF CHICAGO

DEPARTMENT OF FINANCE

MEMORANDUM

To: The Honorable Pat Dowell
Chairman, Committee on the Budget and Government Operations

From: Reshma Soni
City Comptroller
Department of Finance

CC: Manuel Perez
Mayor's Office of Intergovernmental Affairs

Date: October 28, 2020

Re: Request for Information from Annual Appropriation Committee Hearing

ID#: 27-10 Contract Audit

The following information is provided in response to questions posed at our department's hearing on October 26, 2020 to discuss the proposed 2021 budget.

Alderman Thompson asked for the cost of creating the review/audit section; how it is being paid for; and where did the two positions come from.

The Contract Review and Audit section in the Department of Finance is comprised of two positions totaling $270,000.

One of the positions was converted from Senior Advisor to the Mayor in the Mayor's Office to Chief Compliance Officer. The other position was an existing Deputy Director vacant position in the Department of Finance.

As always, please let me know if you have any further questions.