Sales Tax Securitization Corporation (STSC)

Assigned	Rating(s)	Outlook
Sales Tax Securitization Bonds, Taxable Series D	AAA	Stable

Affirmed	Rating(s)	Outlook
Sales Tax Securitization Bonds	AAA	Stable

Methodology:

U.S. Special Tax Revenue Bond Rating Methodology

ABS: Global General Rating Methodology for Asset-Backed Securities

Analytical Contacts:

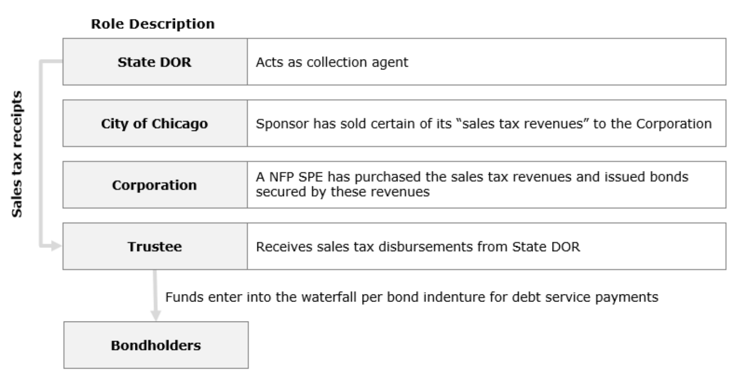
William Cox, Managing Director
(646) 731-2472
wcox@kbra.com

Alice Cheng, Associate Director
(646) 731-2403
acheng@kbra.com

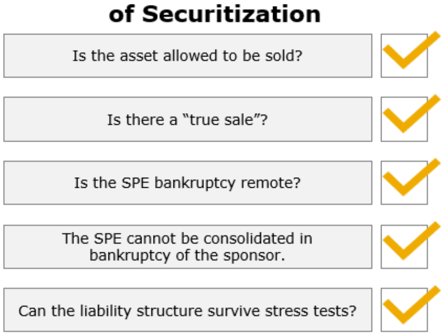
Rating Summary: The Bonds are secured by pledged Sales Tax Revenues which have been sold by the City of Chicago to the Corporation, a bankruptcy remote special purpose entity (SPE), pursuant to State law (the "Act") and a Sale Agreement. The Bonds have strong legal and structural protections that separate the pledged Sales Tax Revenues from ongoing operating and financial risk of the City and KBRA believes these protections apply even in the unlikely event of an insolvency or bankruptcy of the City. The Act and the City's home rule powers provided the legal mechanisms by which the City: created the Corporation; assigned and effectively accomplished a "true sale" of the pledged Sales Tax Revenues; and irrevocably directed the State to distribute the pledged revenues directly to an account of the Trustee for these Bonds. Further, the Act provides covenants by the State to refrain from impairing these mechanisms or altering the basis upon which the City's share of transferred revenues is derived. The Act also provides that Bonds issued by the Corporation are secured by a "statutory lien" on those transferred revenues, providing additional protection to bondholders in the unlikely event of a City bankruptcy. The Trust Indenture provides additional protections including a 4x Additional Bonds Test, and a flow of funds that results in rapid accumulation of annual debt service requirements.

The pledged Sales Tax Revenues are derived from various categories of taxes imposed on a very broad range of goods and services. The pledged revenues have a long history of smooth collection and distribution mechanics managed by the State. Only a small portion of the pledged revenues are subject to state annual appropriation and KBRA cash flow models demonstrate that the failure to appropriate this portion of the revenues does not materially impact the Bonds. One cautionary note is that the overall sales tax rate in the City is now among the highest in the country, and this may weaken future growth of the pledged revenues. KBRA also believes that this high rate provides the City and State with limited flexibility to raise rates further. Nevertheless, with the broad nature of the sales tax, strong collection mechanics, and very limited appropriation risk, the pledged revenues provide a very strong source of cash flow for the Bonds even in various extreme stress scenarios that KBRA discusses later in this report. After tepid growth in 2017, pledged Sales Tax Revenues are trending 3.6% higher in the first three quarters of 2018, exceeding projections and inflation. The State's recent decision to expand online retail sales tax collections as a result of the U.S. Supreme Court Wayfair decision is expected to add about $8 million to the STSC cash flow in 2019 – compared to $676 million of annualized revenue in the twelve months ending September 30, 2018.

Transaction Overview



Important Features of Securitization



KBRA believes the City's deep, diverse economic base provides a very strong foundation for Bonds backed by the pledged Sales Tax Revenues. The City's role as a regional center of commerce, culture, higher education, and transportation support strong retail activity. Numerous metrics including retail and office vacancy rates, per capita income, property values, and hotel occupancy rates all indicate the City's steady recovery from the significant economic contraction it experienced during the Great Recession. Employment and income levels now exceed prior peaks and continue to grow at healthy rates, and pledged revenues substantially exceed pre-recessionary levels.

KBRA assigned a rating to the Corporation's 2018C Bonds on **October 11, 2018**. In addition to adding the $389 million 2018D Taxable Bonds to the planned sale, the Corporation is also expanding the original expected size of the 2018C Bond issuance from $665 million to $918 million. The resulting combined $1.3 billion 2018C and 2018D Bonds will bring the Corporation to $2.7 billion of its total $3 billion debt authorization. The 2018C and 2018D Bond proceeds will be used to refund some of the City's higher cost General Obligation bonds and correspondingly reduce a significant amount of the City's property tax supported debt service. The new issues will also come close to maximizing the Corporation's 4x additional bonds test. The last full fiscal year pledged Sales Tax revenue of $658 million will provide roughly 4.1x coverage of the new maximum debt service of $160.7 million. KBRA has always assumed that the Corporation would quickly maximize its debt issuing authority and we have built all of our stress scenarios based on that assumption. These stress cases, which demonstrate that the pledged Sales Tax Revenues remain able to cover maximum debt service requirements even under extraordinary circumstances are described later in this report.

The **Stable Outlook** reflects KBRA's expectation that even under severe economic downturns and other stressful scenarios, the pledged Sales Tax Revenues will remain more than sufficient to meet timely principal and interest requirements on the Bonds. Further, even in the unlikely event of City insolvency or bankruptcy, KBRA believes the assets of the Corporation, including the right to the pledged revenues, will not be consolidated with the City's assets and the cash flow supporting the Bonds will not be disrupted.

Key Rating Strengths

- The combination of the Act, the bankruptcy remoteness of the Corporation, the Sale Agreement, and the Indenture provide the Bonds with a strong legal framework that KBRA believes will insulate the pledged Sales Tax Revenues and the Corporation from the operating and credit conditions of the City;
- The broad base of goods and services included in the pledged revenues combined with a long track record of collection and distribution mechanics provide for strong underlying asset characteristics;
- An ABT of 4x prevents the Corporation from diluting the substantial cushion provided by the pledged revenue's cash flow;
- Chicago's deep, diverse, and resilient underlying economic base supports substantial residential and tourist retail activity;
- Strong projected coverage of monthly deposit and annual debt service requirements that withstand KBRA's stress scenarios.

Key Rating Concerns

- The high overall sales tax rate in the City may weaken growth of the pledged Sales Tax Revenues.

Drivers for Rating Change	
N/A	+
Significant erosion of pledged Sales Tax Revenues resulting in material decline in debt service coverage ratios.	-

Key Ratios

	Total Pledged Sales Tax	New MADS	MADS Coverage	New Annual DS	New Annual DSCR
2007	$ 542,869	$ 160,710	3.38x	n/a	n/a
2012	$ 546,967	$ 160,710	3.40x	n/a	n/a
2017	$ 659,150	$ 160,710	4.10x	n/a	n/a
2018*	$ 676,573	$ 160,710	4.21x	$ 61,766	10.95x
2019*	$ 676,568	$ 160,710	4.21x	$ 122,509	5.52x
2020*	$ 676,563	$ 160,710	4.21x	$ 122,509	5.52x
2030*	$ 676,506	$ 160,710	4.21x	$ 160,708	4.21x
2040*	$ 676,437	$ 160,710	4.21x	$ 160,708	4.21x
2052*	$ 676,333	$ 160,710	4.21x	$ 160,709	4.21x

**Pledged Sales Tax Revenue equals annualized 12 months from Oct 2017-Sept 2018 minus admin fees with assumed 2% annual growth*

Rating Determinants (RD)	
1. Legal Framework	AAA
2. Nature of Special Tax Revenues	AAA
3. Economic Base and Demographics	AA
4. Revenue Analysis	AAA
5. Coverage and Bond Structure	AAA

RD 1: Legal Framework

Introduction

KBRA believes that the legal mechanics and security provisions governing the Bonds provide bondholders with strong levels of protection against interruption of cash flows relating to the pledged Sales Tax Revenues. In reaching this opinion, KBRA has reviewed the Act, the Master Trust Indenture ("the Indenture"), the Corporation's organizational documents, the Sale Agreement and various other documents and legal opinions provided by the City and the Corporation that provide the legal framework for the Bonds. After consulting with outside counsel, KBRA also believes that the legal mechanics and security provisions for the Bonds insulate the pledged Sales Tax Revenues from the day-to-day operating and credit risk of the City, and that these protections would likely withstand the improbable circumstance of the City becoming insolvent or entering bankruptcy. The following paragraphs summarize KBRA's analysis of these bondholder protections.

The Act

Effective July 6, 2017, the Act added a new Division 13 to the Illinois Municipal Code. The Act authorizes home rule municipalities, including the City, to securitize future tax receipts, including Home Rule Sales Tax Revenues and Local Share Sales Tax Revenues, for the financing of lawful public purposes. The Act primarily authorizes the City to (i) convey to a Special Purpose Entity (SPE) all right, title and interest in revenues or taxes, (ii) provide that any such conveyance will not be subject to disavowal for any reason, including insolvency of any party, and (iii) give the State entities that administer the collection and distribution of such taxes irrevocable directions to deposit the receipts directly with a trustee for the bondholders. The Act also requires each State entity to comply with such irrevocable directions. After reviewing relevant legal opinions and consulting with outside counsel, KBRA believes that these elements of the Act fully authorize the City's Sales Tax Securitization program.

The Act also provides that obligations issued by an SPE formed under the Act will be secured by a "statutory lien" on the transferred receipts assigned to the SPE. The presence of this statutory lien provides additional security for the Bonds and expresses clearly that it is the public policy of the State that the lien is mandatory for all financings undertaken pursuant to the Act. The statutory lien provided by the Act (A) has the same meaning given to that term under the U.S. Bankruptcy Code, (B) is mandatory for all receipts pledged by the SPE as security for the Bonds, (C) automatically attaches without further action by the SPE or other parties and (D) unless the financing documents otherwise provide, is a first priority lien. The Act also provides that the statutory lien is fully effective and enforceable against the Corporation, the City, the State of Illinois and all creditors. It is important to note that any pledged Sales Tax Revenues re-conveyed to the City at the end of the Indenture's waterfall are automatically released and discharged from the statutory lien. This issue is mitigated by the excess cash flowing through the waterfall on a monthly basis (see below "Flow of Funds"). Essentially, the granting of a statutory lien in favor of the bondholders with respect to the Sales Tax Revenues assigned to the Corporation means that such bondholders would likely be treated as secured creditors of the Corporation in a bankruptcy proceeding of the City.

However, to KBRA's knowledge, Illinois statutory lien provisions have not been applied by any reported bankruptcy court decision and thus this potential result for bondholders in such a case remains uncertain. In addition, a statutory lien is not exempted from the automatic stay arising on the filing of a Chapter 9 petition. Accordingly, a statutory lien does not fully prevent default. Nonetheless, it is KBRA's understanding that the presence of a statutory lien should reduce the risk of non-recovery on the Bonds in the event of a City bankruptcy since bondholders should be treated as secured creditors of the Corporation. The Corporation has granted to the trustee all of its rights to enforce the statutory lien.

Bondholders are also protected by the Act's non-impairment clause which provides that the State will not limit or alter (1) the basis upon which the City's share or percentage of the Local Share sales tax is derived or (2) the use of the Sales Tax Revenues. The Corporation has granted to the trustee all rights to enforce the State's non-impairment pledge. After consulting with outside counsel, KBRA believes that the non-impairment provisions follow Illinois case law.

The Corporation's Bylaws and Bankruptcy Remoteness

As mentioned previously, KBRA's outside counsel has advised that there are no bankruptcy cases addressing whether a lien like the one provided in the Act meets the requirements for a statutory lien under the Bankruptcy Code. If it does not, and the Corporation filed for bankruptcy, pursuant to Section 552(a) of the Bankruptcy Code, all Sales Tax Revenues received by the Corporation after the petition date would not be subject to the lien of the bondholders. As a result, it is essential to the 'AAA' rating that the Corporation is structured as a bankruptcy-remote, special purpose entity where the risks of its bankruptcy are minimized and there are relatively few creditors other than the bondholders and the City (as holder of the Residual Certificate described below).

First, KBRA understands that because the Corporation is structured as a not-for-profit corporation under federal and state law, under the Bankruptcy Code, creditors may not file an involuntary bankruptcy petition against the Corporation. Second, the Corporation is subject to provisions in its bylaws and obligations in the Sale Agreement that greatly reduce the risk of the Corporation voluntarily filing for bankruptcy. The Corporation's bylaws and its covenants in the Sale Agreement require the Corporation, among other things, to maintain its separate legal existence from other entities, including the City. The Corporation is also required by its bylaws to have five directors, and in the event of specified votes that could be adverse to the interests of bondholders, a sixth director must be added. This sixth director is required to be "independent" of the City. The Corporation cannot take certain extraordinary corporate actions, including filing a voluntary bankruptcy petition under the Bankruptcy Code, or take any other action "which could be adverse to the interests of any holders of then-outstanding obligations issued by the Corporation. . ." without the affirmative vote of all directors, including the independent director. The bylaws provide that such a vote may not be taken or become effective during any period in which the independent director is not presently seated. It is KBRA's understanding that a bankruptcy court would look to the Corporation's bylaws to determine whether a bankruptcy filing by the Corporation was properly authorized.

The Corporation has effectively been structured as a bankruptcy remote special purpose entity. However, KBRA does note that the requirements related to an independent director listed in the bylaws and transaction documents are generally less robust than would appear in a standard asset backed securitization transaction that featured a special purpose entity. For example, the Corporation's independent director does not need to be appointed until there is a need to vote on the extraordinary matters described above. In a typical asset backed securitization transaction, an independent director would be in place at closing and throughout the life of a transaction. Mitigating this risk is the fact that the Corporation's bylaws specifically prohibit the Corporation from, among other things, engaging in actions to dissolve, liquidate, consolidate merge or sell pledged assets while the Bonds are outstanding.

Figure 1

Key Documents in Legal Framework

The Act

- Authorizes absolute conveyance of the pledged revenues
- Authorizes irrevocable redirection of pledged revenues to the Corporation
- State covenants not to impair the pledged revenues
- Establishes "Statutory Lien"

The SPE Bylaws

- Establishes separateness which helps minimize possibility the Corporation can be consolidated as an asset of the City
- Helps make the Corporation bankruptcy remote

The Sale Agreement

- Establishes true sale of pledged revenues from the City to the Corporation
- Includes the City's non-impairment covenant

The Indenture

- Grants Trustee all rights to pledged revenues including enforcement mechanisms
- Directs the Flow of Funds and prioritizes debt service payments

The Sale Agreement

The City and the Corporation have entered into the Sale Agreement in order to accomplish the absolute conveyance by true sale from the City to the SPE of the Sales Tax Revenues. Features of this agreement help further protect bondholders' interests. In particular, certain features of the Sale Agreement that accomplish the true sale of the Sales Tax Revenues, as contemplated in the Act, help ensure that the pledged revenues cannot be construed by some future court as being property of the City. For example, the Sale Agreement provides that the parties intend the transfer of the Sales Tax Revenues to be a true sale from the City to the Corporation and not a loan to the City secured by a lien on the Sales Tax Revenues. Courts look at various factors such as these in determining whether to re-characterize a sale as a disguised loan. After consulting with outside counsel and reviewing various opinions provided by the Corporation, it is KBRA's understanding that the transfer of the Sales Tax Revenues necessary to meet the Corporation's payment obligations to bondholders has the requisite characteristics of a true sale.

City Bankruptcy

Another key question for bondholders is what would happen to the pledged Sales Tax Revenues in the unlikely event that the City filed for bankruptcy protection. KBRA has consulted outside counsel and it is KBRA's understanding that the City is a municipality under Illinois state law and that Illinois does not currently permit municipalities to file for protection under the U.S. Bankruptcy Code (with minor exceptions for units of local government with a population under 25,000 or for the Illinois Power Agency). Further, it is KBRA's understanding that it is unlikely that the existing broad grant of home rule powers to home rule municipalities like Chicago under the Illinois Constitution and other Illinois law would satisfy the specific authorization required in order to permit the City to file for protection under Chapter 9.

However, no assurance can be provided as to whether or not the State of Illinois may adopt in the future a law that would permit municipalities such as the City of Chicago to file for bankruptcy relief. In fact, a bill that would grant such authority was introduced in the General Assembly during a recent legislative session. Though that bill was never considered for adoption by the General Assembly, KBRA continues to monitor such legislative developments.

Therefore, KBRA consulted outside counsel regarding how bondholders and their security interest in the pledged Sales Tax Revenues might be treated in the unlikely circumstance that the City does file for bankruptcy. It is KBRA's understanding that should the City ever file for bankruptcy under Chapter 9 of the Bankruptcy Code, compliance by the Corporation with its obligations in its bylaws and in the Sale Agreement to assure that the Corporation maintains its separate legal identity from the City minimizes the risk that the assets of the Corporation would be substantively consolidated with the assets of the City in the City's bankruptcy. Section 10.6 of the bylaws require the Corporation to (i) conduct business of the Corporation in its own name; (ii) observe all corporate formalities as required by the Illinois General Not for Profit Act of 1986, the Ordinance and the bylaws; (iii) pay all Corporation liabilities from the funds of the Corporation; (iv) procure invoices and checks bearing the name of the Corporation and not bearing the name of the City or any other person or entity, and utilize such invoices and checks in the conduct of the business of the Corporation; and (v) hold itself out as a separate entity from the City, and attempt to correct any known misunderstanding regarding its separate identity. In addition, Section 10.7 of the bylaws require that the Corporation not: (i) guarantee or become obligated for the debts of any other entity or hold out its credit as being available to satisfy the obligations of others; (ii) acquire obligations or securities of the City, its directors or employees; or (iii) pledge its assets for the benefit of any other entity or make any loans or advances to any other entity except in furtherance of the purposes for which the Corporation was established.
Furthermore, in Sections 7.03 and 7.04 of the Sale Agreement, the Corporation agrees to: (i) have its own separate telephone number, stationery and bank checks signed by it and in its own name; (ii) if it uses any premises, its portion of such premises must be defined and separately identified; (iii) maintain its books and records separately from the City and any other entity; (iv) segregate its assets from those of the City and any other entity; (v) strictly observe corporate formalities in its dealings; (vi) maintain compliance with the Illinois General Not for Profit Corporation Act; (vii) not make any change in the character of its business that could adversely affect the enforceability of the Transaction Documents or the ability of the Corporation to perform its obligations under the Transaction Documents without the prior written consent of the City and the bond trustee; and (viii) not amend its articles of incorporation, bylaws, or other governing documents without the express written consent of the City and the bond trustee. In addition, counsel for the Corporation has provided a true sale opinion relating to the conveyance of the Sales Tax Revenues to the Corporation and a non-consolidation opinion covering the possibility of a consolidation of the Corporation with the City in the event the City becomes bankrupt or insolvent. Such opinion was reviewed by KBRA's external counsel and was found to generally be a standard true sale and non-consolidation opinion with no unusual carve-outs or qualifications. In addition, KBRA's outside counsel independently views the possibility of consolidation of the Corporation with the City in the event of a City bankruptcy or insolvency as remote, and independently views the conveyance of Sales Tax Revenues to the Corporation as having all the hallmarks of a true sale.

KBRA and its outside counsel have reviewed other legal opinions and KBRA's outside counsel has advised that such opinions are generally standard and comprehensive. It should be noted, however, that neither transaction counsel nor bond counsel will be issuing an opinion that the Act was duly enacted and is constitutional. In KBRA's opinion, although the failure to deliver such an opinion is unusual, its omission is mitigated by the fact that opinions have been delivered regarding the City having the lawful right and power under the Act to sell the Sales Tax Revenues, the City ordinance authorizing the transaction being duly adopted and in full force and effect, and the Sale Agreement being valid and binding, none of which could be given if opining counsel concluded that the Act was unconstitutional or unenforceable.

Nature and Strength of the Pledge

The Corporation issues bonds pursuant to a Master Trust Indenture and has secured the repayment of the Bonds by granting a pledge to the Trustee in (i) all right, title and interest in the pledged Sales Tax Revenues, and (ii) all right, title and interest of the Corporation in the Sale Agreement, as well as all rights to enforce provisions of the Act and the Sale Agreement on behalf of bondholders. The pledged Sales Tax Revenues were acquired by the Corporation from the City under authority granted by the Act in consideration for the proceeds from the sale of the Bonds. The Corporation has issued a Residual Certificate that entitles the City to monthly payments of excess funds available after payment of Corporation expenses and bondholder interest and principal pursuant to the Indenture's waterfall. Such taxes, imposed on a broad tax revenue base, are collected by the State and will be deposited directly to an account of the Trustee for the benefit of bondholders.

The purchased and pledged Sales Tax Revenues are those collected and payable to the City by the State Department of Revenue, and therefore eligible for sale to the Corporation under the Act. These purchased and pledged components of the City's Sales Tax Revenues comprise roughly 92% of the City's total Sales Tax Revenues – or $660 million in FY 2016.

Lien Structure

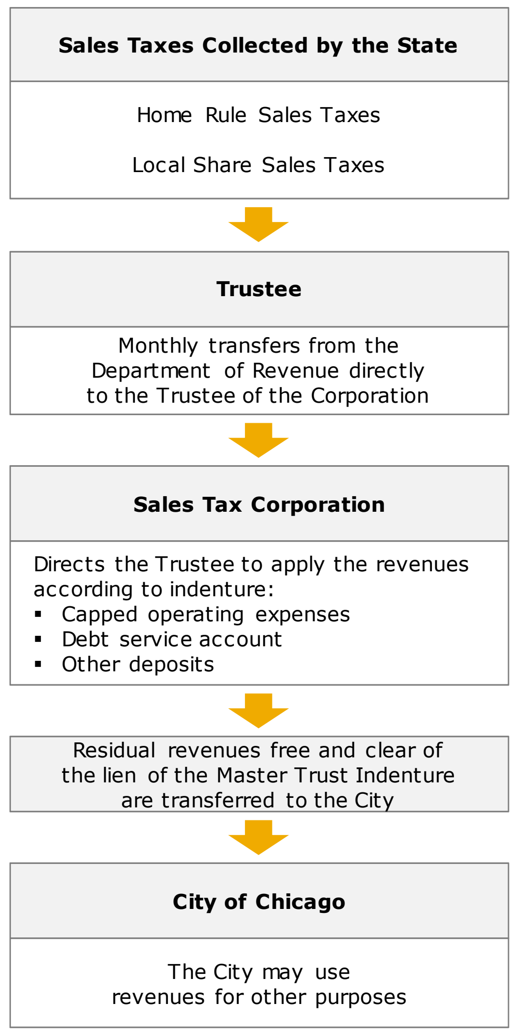
The Bonds are secured by a senior lien pledge on the pledged Sales Tax Revenues subject to the application thereof for the payment of the Corporation's operating expenses, which are capped at $250,000 per year. Subordinate bonds are permitted but currently not contemplated by the Corporation.

Timing of Deposits, Waterfall, Flow of Funds

Pursuant to the Act and the Sale Agreement, the City will irrevocably direct the State to send monthly distributions of the pledged Sales Tax Revenue to an account of the trustee for benefit of the Corporation and the bondholders. The Indenture directs the Trustee to first pay the Corporation's capped operating expenses, then to set aside 150% of the monthly accrual of interest, and then 150% of $1/12^{th}$ of the annual principal due on the Bonds. The remainder of the waterfall is fairly standard including $1/12^{th}$ of the amount necessary to restore the Debt Service Reserve account to its required level (currently contemplated at $0), then to the subordinated debt service fund requirements, and then to excess operating expenses (see Figure 2). At the end of the waterfall, each month, all excess funds are deposited to the Residual Fund, and transferred to the City. KBRA views this waterfall, especially in the context of the large amount of monthly cash flow from the State, as providing strong protection for bondholders.

Figure 2

Flow of Funds



Source: Sales Tax Securitization Corporation

Additional Bonds Test

The Corporation pledges not to issue additional debt unless the Sales Tax Revenues for the most recently completed fiscal year are at or above 4x the Maximum Annual Debt Service. KBRA views this restriction as strong protection for bondholders, especially in the context of the breadth and depth of the pledged sales tax base. The Corporation is also permitted to issue subordinate revenue bonds but currently has no plans to do so. The City ordinance which authorized the creation of the Corporation and authorized the Sale Agreement restricts total debt outstanding – including senior and subordinate debt to a 1.5x ABT. While noting this provision in the ordinance, KBRA believes the 4x ABT on senior lien debt as provided in the Indenture is a significantly more important protection for holders of these Bonds.

Debt Service Reserve

The absence of a debt service reserve fund is unusual in a highly rated transaction, but this concern is substantially mitigated by the nature of the pledged revenues, the direct deposit of these revenues to an account of the Trustee, the excess cash and timing of deposits that flow through the waterfall, as well as the early accumulation of the amounts necessary to meet semi-annual interest and annual principal requirements. For example, in a base case, the monthly deposits of 150% of each month's accrued interest and 150% of the monthly principal requirement results in the accumulation of semi-annual interest requirement in month four and month ten instead of months six and twelve, respectively. Likewise, in a base case, the annual principal requirement is accumulated in month eight instead of month twelve. These early accumulations of funds and then the continued running of the cash flow through the waterfall to ensure that the various buckets are full provides bondholders with the effective equivalent of a reserve. Later, KBRA describes various stresses to the monthly cash flow that support this conclusion.

Rights of General Obligation Bondholders

In light of constitutional questions raised in the Puerto Rico bankruptcy, KBRA examined questions related to potential claims by existing City general obligation bondholders. After consulting with outside counsel, it is KBRA's understanding that Article VII, Section 6 of the Illinois constitution grants to the City and other home rule units the constitutional authority to incur debt. No provision of the Illinois Constitution grants additional rights to the holders of general obligation bonds. Bondholders have no constitutional right to a pledge of "first revenues" or a pledge of the "full faith and credit" of the City or a pledge of a "dedicated debt service tax". While the City regularly levies a dedicated debt service tax for each issue of its general obligation bonds and may pledge its full faith and credit and make other contract covenants with its bondholders, no priority for general obligation bondholders exists under the Illinois Constitution.

Determinant Summary

In summary, KBRA believes that the legal mechanics and security provisions governing the Bonds provide bondholders with strong, AAA levels of protection of the pledged Sales Tax Revenues.

RD 2: Nature of Special Revenues

KBRA views the pledged Sales Tax Revenues as providing a broad and sustainable source of cash flow for debt service payments (see Figure 5). The City has historically received revenue from eight different categories of sales taxes covering a very broad range of goods and services. Six of the eight sales tax categories, and a portion of a seventh category were completely assigned to the Corporation and are pledged as security for the Bonds. The Sales Tax Revenues that were not assigned to the Corporation are those that are collected directly by the City, and therefore not subject to the Act and not able to be legally insulated from the City's financial operations. The pledged Sales Tax Revenues consist of three of the City's four Home Rule Sales Tax Revenues (these taxes are imposed by the City pursuant to its Home Rule powers, municipal code, and laws of the State) and all of the City's four "Local Share" Sales Tax Revenues (these revenues come from the City's formulaic share of sales and use taxes imposed by the State).

The State collects and distributes all of the pledged Sales Tax Revenues on a monthly basis - the mechanics for which are well established and have experienced no material disruptions in recent history. KBRA notes that the State has delayed distribution of a small portion of the pledged revenues several times in recent years. These short-lived delays, related to roughly 11% of the pledged revenues that are subject to annual appropriation, are described more fully later in this report. KBRA also notes that the State recently expanded its 2% administrative fee to cover all of the State collected Home Rule sales taxes. This change does not materially impact the Bonds.

An increase in the Local Share tax rates or the Home Rule Use Tax on Non-titled Personal Property would require State legislative action. The City does have the legal ability to raise the remainder of its Home Rule tax rates. Nevertheless, KBRA believes that neither the City nor the State have any practical or political ability to significantly raise sales tax rates given that the combined sales tax rate in Chicago for all jurisdictions is now among the highest in the nation at 10.25%. For modeling and cash flow analysis purposes described later in this report, KBRA views the sales tax rates as capped.

With regard to the risk of the City possibly lowering its Home Rule Tax Rates, KBRA notes two mitigating factors. First, the City's Home Rule portion of the overall sales tax rate is only 1.25% and not the main driver of the high overall rate, therefore in KBRA's opinion there is little political incentive to lower the rate. And second, the City's General Fund will remain dependent on the excess cash flow coming out of the bottom of the Bond structure's waterfall, so the City has no financial incentive to lower the rates. Meanwhile, the State is highly dependent on Sales Tax Revenues collected in the City for re-distribution outside the City making it highly unlikely that it will lower rates (See Figure 4). KBRA also believes that the State's ability to alter the formulae by which it distributes Local Share sales taxes is limited by political realities given how many municipalities depend on these revenues and, is also limited by the State's non-impairment covenant in the Act.

Figure 3 also shows the collection trend of each of the seven pledged Sales Tax Revenues in FY 2016, FY 2017 as well as FY 2018 YTD. Pledged revenues collected in FY 2017 were essentially flat relative to FY 2016. But Pledged Sales Tax Revenues collected for the first nine months of FY 2018 are showing healthy growth, up 3.6% compared to that of FY 2017.

Online Sales / Wayfair Decision

In 2018, a U.S. Supreme Court ruling (Wayfair decision) expanded all states' ability to levy and collect online retail sales taxes. Beginning in October 2018, the State of Illinois will adjust its online retail sales tax collections and as a result, has budgeted $150 million of additional retail sales tax revenue for its Fiscal 2019. The STSC projects that it will receive an additional $3-4 million from this expansion in 2018, and roughly $8 million in 2019.

KBRA KROLL BOND RATING AGENCY

Figure 3

Pledged Sales Tax									
Tax	**Item Taxed**	**Tax Rate**	**% of Net Tax Collections Payable to Corporation**	**Subject to Annual Appropriation**	**FY 2016 Collected ($million)**	**FY 2017 Collected ($million)**	**FY 2017 Collected Amount as % of Total Pledged Rev**	**FY 2018 1Q-3Q Collected ($million)**	**FY 2018 1Q-3Q as % of 2017 Full Year**
HRM Retailers Occupation Tax	Tax on most tangible personal property items sold by retailers in the City	1.25%	100%	No	$257.1	$255.7	39%	$194.6	76%
HRM Service Occupation Tax	Tax imposed on service providers when tangible personal property or real estate is transferred within the course of performing a service in the City	1.25%	100%	No					
HRM Use Tax on Titled Property	Tax on the privilege of using within the City personal property purchased from a retailer and titled or registered at a location in the City – Collected on sales in Cook County and five adjoining counties	1.25%	100%	No	$38.2	$37.0	6%	$27.4	74%
Local Share Illinois Retailers Occupation Tax	Tax imposed by the State on most tangible personal property items sold by retailers in the State	6.25%	16%	No	$283.6	$282.8	43%	$217.1	77%
	Tax on qualified food, drugs and medical appliances	1.00%	100%	No					
Local Share Illinois Service Occupation Tax	Tax imposed by the State on service providers when tangible personal property is transferred within the course of performing a service	6.25%	16%	No					
	Tax on qualified food, drugs and medical appliances	1.00%	100%	No					
	Tax imposed by the State on tangible personal property purchased outside the State and titled or registered by a State agency	6.25%	16%	No					
Local Share Illinois Use Tax	Tax imposed by the State on nontitled tangible personal property purchased outside the State	6.25%	4%	Yes	$79.8	$83.7	13%	$69.4	83%
	Tax on qualified food, drugs and medical appliances purchased outside of the State	1.00%	20%	Yes					
Local Share Illinois Service Use Tax	Tax imposed by the State on the privilege of using most tangible personal property items acquired because of the purchase of a service from service providers outside the State	6.25%	4%	Yes					
	Tax on qualified food, drugs and medical appliances purchased outside of the State	1.00%	20%	Yes					
				Total Pledged Amount	**$658.7**	**$659.2**		**$508.4**	77%

Sales Tax Not Pledged				
HRM Use Tax on Titled Personal Property	1.25%	100%	No	$53.8
HRM Use Tax on Nontitled Personal Property	1.25%	100%	No	
			GRAND Total:	**$712.5**

Source: Sales Tax Securitization Corporation

As mentioned previously, the State has delayed distribution a portion of the pledged revenues for several months on several occasions. However, the State has not failed to appropriate this category since the enactment of the Sales Tax Reform Act in 1990 including during the recent years of State budgetary morass. Nevertheless, as discussed later in the report, KBRA modeled a lengthy loss of these and other pledged revenues and determined that the bond structure more than adequately protects bondholders from this stress scenario. For the remaining Sales Tax Revenues, the State essentially serves as a collection and distribution agent – a position that is reinforced by the State's non-impairment covenant in the Act.

Both the City and State have adjusted sales tax rates upwards several times over the last three decades. Figure 4 shows the history of sales tax rate increases and the combined State and City sales tax rate.

Figure 4

Historic Pledged Sales Tax Rates

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994 <-> 2016	2018
City Sales Tax	1%												1.25%		
State Sales Tax	4%			5%						6.25%					
Combined Rate	<-------5%------->			<-----------------6%----------------->						<-----7.25%----->			<---------7.5%--------->		

Source: Illinois Department of Revenue

In 2016, Cook County increased its sales tax rate to 1.75% from 0.75% bringing the total sales tax rate in the City to 10.25% (See Figure 5). In addition to the drag this high sales tax rate may have on retail activity, KBRA notes there may be a problem of leakage. To assess this potential problem, KBRA compared the City's total sales tax rate to 17 other municipalities in Cook County and in five adjacent counties (See Figure 6). KBRA notes that sales tax leakage to neighboring cities and counties is possible but unlikely to create a large impact on the pledged revenues given the distances involved for a consumer seeking a significantly lower rate.

Figure 5

City of Chicago Combined Sales Tax Rate **As of October 1, 2018**	
City of Chicago Sales Tax	1.25%
State Sales Tax	6.25%
Cook County Sales Tax	1.75%
Regional Transportation Authority Sales Tax	1.00%
Combined	**10.25%**

Source: City of Chicago

Figure 6

Current Sales Tax Rates of Cities in 5 Adjoining Counties

City	County	State	City	County	Other	Total	Distance from Chicago
Cicero	Cook	6.25%	1.75%	1.75%	1.00%	10.75%	7 miles
Chicago	**Cook**	**6.25%**	**1.25%**	**1.75%**	**1.00%**	**10.25%**	**-**
Elgin	Cook	6.25%	1.25%	1.75%	1.00%	10.25%	36 miles
Skokie	Cook	6.25%	1.25%	1.75%	1.00%	10.25%	14 miles
Arlington Heights	Cook	6.25%	1.00%	1.75%	1.00%	10.00%	24 miles
Evanston	Cook	6.25%	1.00%	1.75%	1.00%	10.00%	13 miles
Schaumburg	Cook	6.25%	1.00%	1.75%	1.00%	10.00%	26 miles
Des Plaines	Cook	6.25%	1.00%	1.75%	1.00%	10.00%	17 miles
Aurora	Du Page	6.25%	1.25%	0.00%	0.75%	8.25%	37 miles
Naperville	Du Page	6.25%	0.50%	0.00%	0.75%	7.50%	29 miles
Geneva	Kane	6.25%	0.50%	0.00%	0.75%	7.50%	35 miles
Saint Charles	Kane	6.25%	1.00%	0.00%	0.75%	8.00%	35 miles
Waukegan	Lake	6.25%	1.25%	0.00%	0.75%	8.25%	36 miles
Highland Park	Lake	6.25%	1.00%	0.00%	0.75%	8.00%	24 miles
Joliet	Will	6.25%	1.75%	0.00%	0.75%	8.75%	34 miles
Bolingbrook	Will	6.25%	1.50%	0.00%	0.75%	8.50%	26 miles
Crystal Lake	Mchenry	6.25%	0.75%	0.00%	0.00%	7.00%	43 miles
Marengo	Mchenry	6.25%	0.75%	0.00%	0.00%	7.00%	56 miles

Source: Illinois Department of Revenue

Determinant Summary

Based on the foregoing, KBRA views the nature of the pledged revenues as being consistent with a AAA rating determinant. This assessment primarily reflects the long history of smooth collection mechanics, the size of the retail base, and the broad nature of the sales taxes covering a wide range of essential goods and services.

RD 3: Economic Base and Demographics

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 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.

The City has a very diverse employment base that is not concentrated in any single sector or employer. The top ten employers represent only 10.8% of total city employment and are not in cyclical industries (See Figure 7). The City's employment base is attractive to employers with over 36% 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 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%	6,170,676	0.02%	153,337	1.25%
2018 Jul (P)	1,304,386	1.17%	2,543,481	1.17%	6,282,294	1.81%	155,965	1.71%
Growth Since Low	130,279	11.10%	213,448	9.16%	339,065	5.82%	16,071	12.14%

Soucre: U.S. Bureau of Labor Statistics
Note: Lowest values over this period are in bold
July 2018 data is preliminary

Chicago's wealth levels are also quite strong, with income per capita growing 23.4% 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 9). Figure 10 shows how Chicago's demographic profile compares to the largest cities in the Illinois and it is consistent with the trend observed.

Figure 9

	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
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%	18.1	34.0%	3.2	13.0%	-0.8	$32,849	20.2%
United States	323,127,515	4.5%	61.3%	19.8	31.3%	3.1	14.0%	-1.3	$31,128	19.5%
Chicago as % of Cook County	**NA**		**88.0%**		**102.1%**		**128.2%**		**97.9%**	
Chicago as % of Illinois	**NA**		**82.3%**		**113.2%**		**146.9%**		**100.8%**	
Chicago as % of U.S.	**NA**		**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.

Figure 10

Demographic Profiles of Largest Cities in Illinois

City	County	Population (2016)	Per Capita Income (2016)	Poverty Rate (2016)	Unemployment Rate 2016	2017	2018 Jul
Chicago	Cook	2,704,965	$33,122	19.1%	6.40%	5.50%	4.50%
Aurora	Du Page	197,107	$29,179	12.3%	5.40%	4.70%	4.90%
Naperville	Du Page	148,063	$49,929	4.1%	4.60%	4.00%	3.30%
Rockford	Winnebago	147,404	$24,034	22.6%	7.60%	7.50%	6.10%
Joliet	Will	146,410	$25,968	11.0%	7.30%	6.30%	5.00%
Peoria	Peoria	115,588	$28,475	19.8%	7.00%	5.90%	5.60%
Springfield	Sangamon	115,511	$30,784	18.5%	5.10%	4.50%	4.50%
Elgin	Cook	114,521	$26,791	14.9%	6.40%	5.50%	4.20%

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 (not pledged) hit a record high in 2017 at almost $129 million (see Figure 11).

Figure 11

Chicago Central Business District
Historic Hotel Performance and Visitor Trends

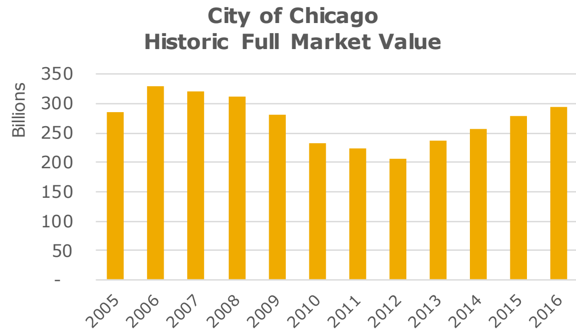
	Total Hotel Room Nights	Average Hotel Occupancy Rate (%)	Average Daily Rate ($)	Chicago Hotel Tax Revenue ($)	Total Domestic Visitor (millions)	Total Overseas Visitor (millions)	Total Visitor (millions)
2013	13,192,467	75.3%	191.82	106,304,670	46.96	1.38	48.34
2014	13,534,515	75.7%	198.76	113,592,474	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 (See Figure 12).

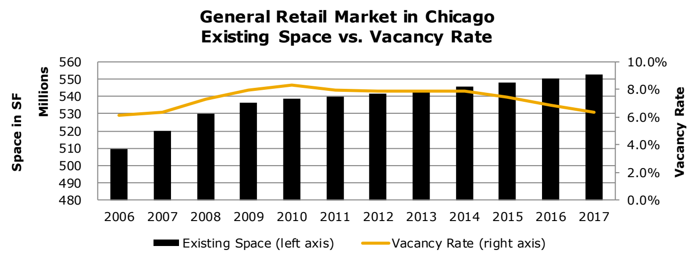
Figure 12

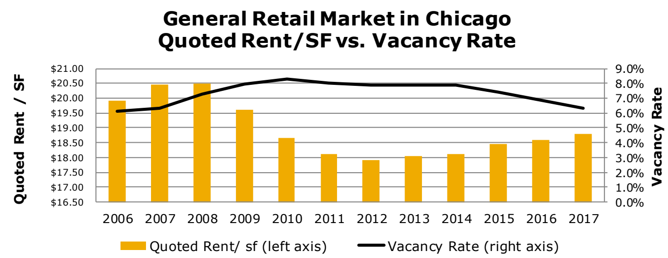


Source: City of Chicago 2017 CAFR

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 (See Figure 13).

Figure 13

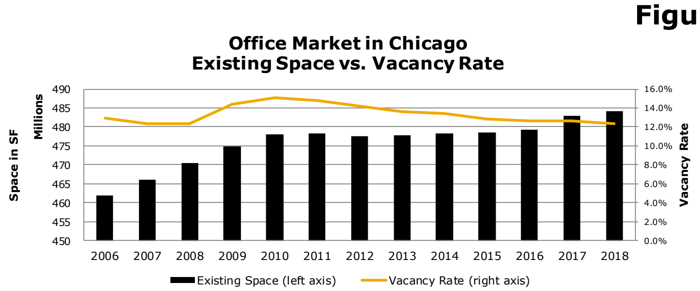


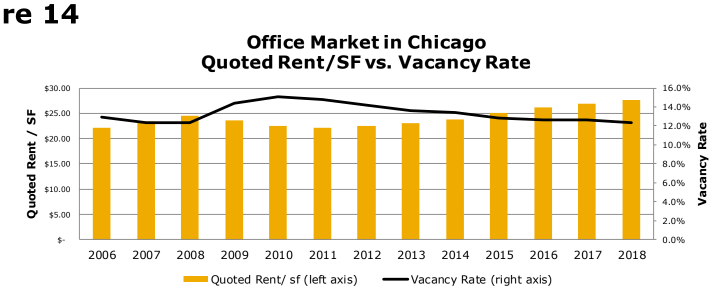


Source: CoStar Property

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 (See Figure 14).

Figure 14





Source: CoStar Property

Determinant Summary

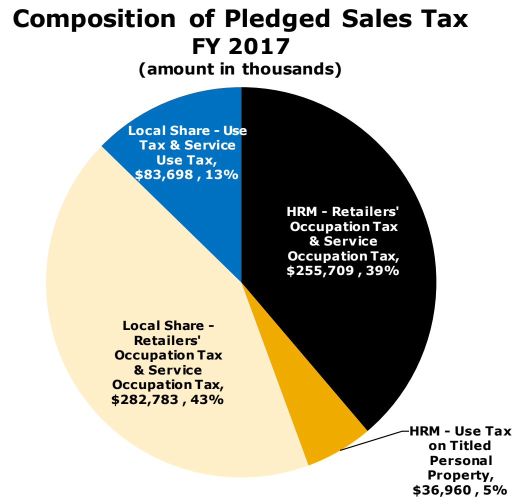
Based on the foregoing, KBRA believes the City's Economic and Demographic base provides a very strong foundation for Bonds backed by the pledged Sales Tax Revenues. KBRA views these characteristics as consistent with an Economic and Demographic Rating Determinant rating of AA.

RD 4: Revenue Analysis

Trends

In FY 2017, the City received $659.2 million of pledged Sales Tax Revenues, which included $293 million (44%) of pledged Home Rule Sales Tax Revenues and $366 million (56%) of pledged Local Share Sales Tax Revenues (See Figure 15).

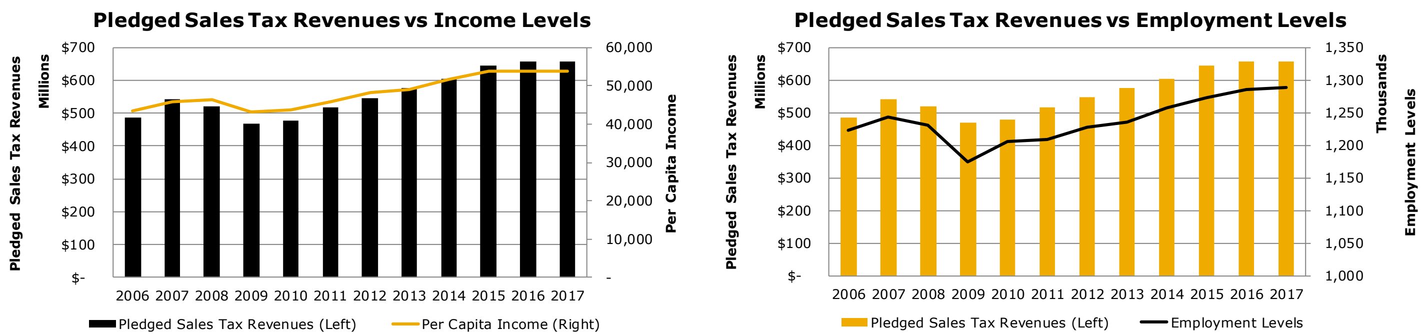
Figure 15



Source: City of Chicago

In general, consumer purchasing power is highly sensitive to the local and global economy, costs of living, employment, and income levels. KBRA notes that trends in pledged Sales Tax Revenues closely follow the City's employment and per capita income trends (See Figure 16). Pledged Sales Tax Revenues had reached a peak in 2007 at approximately $543 million then declined sharply by a total of 14% in 2008 and 2009 during the Great Recession. Retail sales and related tax revenues began to improve in 2010 as employment and income markets began to recover.

Figure 16



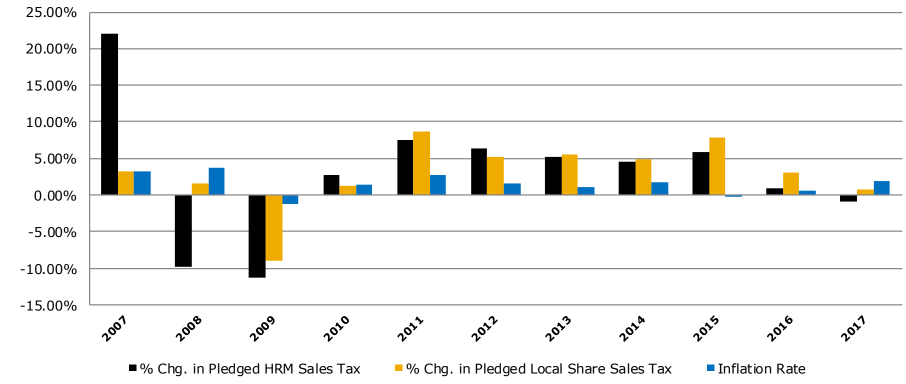
Source: City of Chicago | Bureau of Economic Analysis

Pledged Sales Tax Revenues have grown steadily since then, considerably exceeding inflation between 2010 and 2016 (see Figures 17). KBRA noted a slow-down in the rate of growth in 2016 and 2017, when Pledged Sales Tax Revenues grew by less than $1 million or 0.1%, which is slower than the inflation rate of the MSA (1.9%). KBRA notes that the slower growth in pledged Sales Tax Revenues corresponded with Cook County's 1% hike in the overall rate.

Growth in Pledged Sales Tax Revenue for the first nine months of 2018 appears stronger with YTD Pledged Sales Tax Revenues growth of $17 million or 3.6%, which is faster than the 6-month inflation rate of the MSA (2.0%).

Figure 17

Inflation Rate vs Pledged Sales Tax Revenues



Source: City of Chicago and the Bureau of Labor Statistics

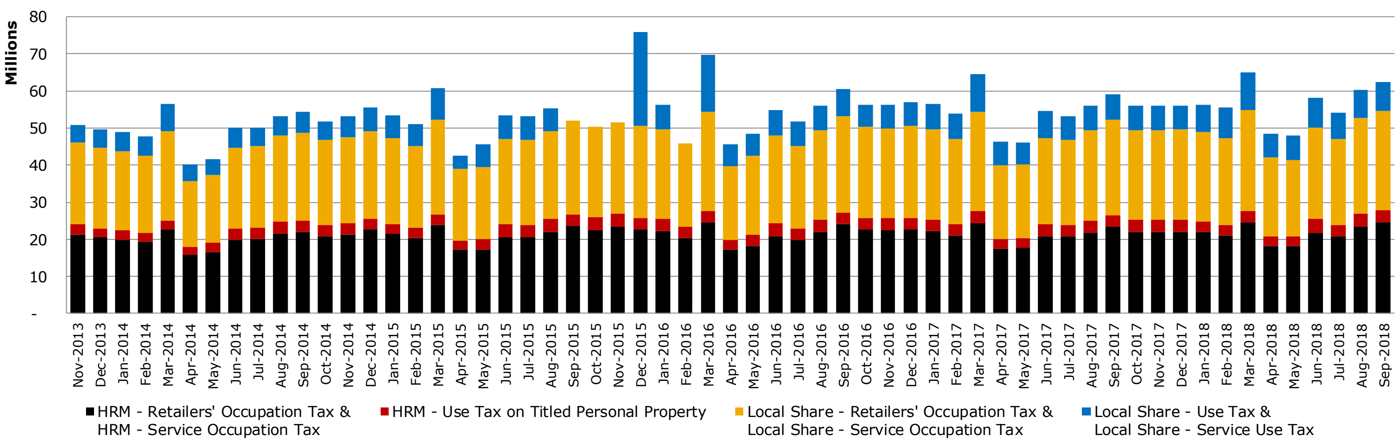
Seasonality and Appropriation Risks

A large portion of the pledged Sales Tax Revenues are generated by seasonal retail sales and service occupations. HRM Sales Tax Revenues and Local Share Sales Tax Revenues each have their own peak period during the calendar year. HRM Sales Tax Revenues generally peak in August. Local share sales tax revenues generally peak in March, which reflects a three-month lag in collecting Sales Tax Revenues generated during the December holiday season (see Figure 18). Overall, the seasonal trends exhibited a high degree of consistency over the past eight years.

Figure 18 also shows several outsized monthly spikes and troughs in the Local Share Use tax and the Local Share Service use tax (shaded blue). As mentioned previously, these revenues are subject to State appropriation and account for 12.7% of total pledged revenues in FY 2017. The spikes and troughs of these revenues show the impact of the previously discussed occasions when the State has withheld these revenues. The State typically makes up the distribution delays within one month, with the exception of a longer delay during the late fall of 2015. Though the net impact of these delays is immaterial given the small portion this revenue category represents relative to the overall pledged revenues, later in this report KBRA models the possibility that these and other revenues subject to appropriation are permanently withheld by the State.

Figure 18

Monthly Pledged Sales Tax Revenue Collection
November 2013 - September 2018



Source: City of Chicago

Determinant Summary

KBRA's believes the annual and seasonal performance of the pledged revenues demonstrates a very strong base of cash flow to support the Bonds. Based on the foregoing, KBRA views the revenue analysis of the Chicago's pledged Sales Tax Revenues as being consistent with a AAA rating determinant rating.

RD 5: Coverage and Bond Structure

The Corporation plans to issue all of its Bonds in low risk structures, with fixed interest rates and an overall level amortization schedule. The 2018C and 2018D Bonds will add $1.3 billion debt to the Corporation, resulting in a total of $2.7 billion STSC bonds outstanding with final maturity in 2052, and a level annual debt service of approximately $161 million between FY 2022 and FY 2052.

Total pledged Sales Tax Revenues collected during the most recent rolling twelve months, between October 2017 to September 2018, equaled $676.6 million, 2.4% higher than the 2016 baseline revenues used in KBRA's original stress scenarios. The most recent pledged Sales Tax Revenues, net of an initial admin fee of $250,000[1], would result in an average DSCR of 4.48x and MADS coverage of 4.21x (see Figure 19). Because the current pledged Sales Tax Revenues are now higher than the 2016 baseline assumptions, and the maximum annual debt service is now lower than the original assumptions, the pledged Sales Tax Revenues remain able to cover maximum debt service requirements even under extraordinary stress as demonstrated by the six stress cases developed by KBRA and described in the Appendix to this report.

Figure 19

STSC Debt Service Requirements
($ in Thousands)

Fiscal Year	Current DS Requirements ($)	2018C&D (est.) Principal ($)	2018C&D (est.) Interest ($)	2018C&D (est.) Aggre. DS	12 month Pledged Sales Tax Rev. minus Admin Fees ($) *	Total Estimated DS Requirement			Est. DSCR
						Principal ($)	Interest ($)	P&I ($)	
2018	54,710		7,056	7,056	676,573		61,766	61,766	10.95x
2019	60,550		61,958	61,958	676,568	3,000	119,509	122,509	5.52x
2020	60,550		61,958	61,958	676,563	3,150	119,359	122,509	5.52x
2021	84,288	9,460	61,958	71,418	676,558	36,505	119,201	155,706	4.35x
2022	89,884	9,340	61,485	70,825	676,553	43,045	117,665	**160,710**	**4.21x**
2023	89,886	9,805	61,018	70,823	676,547	44,795	115,915	**160,710**	**4.21x**
2024	89,886	10,295	60,528	70,823	676,542	46,640	114,070	**160,710**	**4.21x**
2025	89,886	10,805	60,013	70,818	676,536	48,585	112,120	160,705	4.21x
2026	89,882	11,350	59,473	70,823	676,530	50,645	110,060	160,705	4.21x
2027	89,883	11,920	58,906	70,826	676,524	52,815	107,893	160,708	4.21x
2028	89,880	12,520	58,310	70,830	676,518	55,090	105,620	**160,710**	**4.21x**
2029	89,879	13,145	57,684	70,829	676,512	57,475	103,233	160,708	4.21x
2030	85,447	18,235	57,026	75,261	676,506	59,980	100,728	160,708	4.21x
2031	85,449	19,145	56,115	75,260	676,500	62,575	98,134	160,709	4.21x
2032	85,447	20,105	55,157	75,262	676,493	65,300	95,410	**160,710**	**4.21x**
2033	85,448	21,110	54,152	75,262	676,487	68,190	92,520	**160,710**	**4.21x**
2034	85,447	22,165	53,097	75,262	676,480	71,210	89,499	160,709	4.21x
2035	85,447	23,270	51,988	75,258	676,473	74,365	86,340	160,705	4.21x
2036	85,449	24,380	50,879	75,259	676,466	77,615	83,093	160,708	4.21x
2037	85,449	25,540	49,717	75,257	676,459	81,005	79,701	160,706	4.21x
2038	85,718	26,490	48,500	74,990	676,452	84,550	76,157	160,707	4.21x
2039	85,729	27,740	47,238	74,978	676,444	88,160	72,546	160,706	4.21x
2040	85,467	29,325	45,916	75,241	676,437	91,930	68,778	160,708	4.21x
2041	85,474	30,715	44,518	75,233	676,429	95,755	64,952	160,707	4.21x
2042	85,481	32,175	43,053	75,228	676,421	99,745	60,964	160,709	4.21x
2043	85,494	33,695	41,519	75,214	676,413	103,900	56,808	160,708	4.21x
2044	85,547	35,250	39,912	75,162	676,405	108,325	52,384	160,709	4.21x
2045	85,600	36,875	38,231	75,106	676,396	112,935	47,771	160,706	4.21x
2046	85,662	38,570	36,473	75,043	676,388	117,745	42,960	160,705	4.21x
2047	85,719	40,355	34,634	74,989	676,379	122,765	37,943	160,708	4.21x
2048		128,000	32,710	160,710	676,370	128,000	32,710	**160,710**	**4.21x**
2049		133,955	26,752	160,707	676,361	133,955	26,752	160,707	4.21x
2050		140,190	20,516	160,706	676,352	140,190	20,516	160,706	4.21x
2051		146,720	13,987	160,707	676,343	146,720	13,987	160,707	4.21x
2052		153,555	7,154	160,709	676,333	153,555	7,154	160,709	4.21x
	2,518,639	1,306,200	1,619,594	2,925,794		2,730,215	2,714,218	5,444,433	
					Intended Total Principal	3,000,000	**MADS***	160,710	4.21x
					Remaining Intended Issuance Amount	269,785	**Avg. DS**	155,555	4.48x

Source: City of Chicago and STSC

Determinant Summary

KBRA notes that given the structure of the Bonds, the stream of monthly cash flow derived pledged revenues can sustain substantial losses, including many that are highly unlikely, without impacting the Corporation's ability to meet all debt service obligations. Therefore, KBRA assigns a AAA to this rating determinant.

[1] The initial admin fee for the collection of the pledged Sales Tax Revenues is $250,000. KBRA assumes the admin fee to grow at 2% annually. This amount is deducted from the pledged Sales Tax Revenues applied for DSC calculations.

Conclusion

Based on the foregoing, KBRA has assigned a long-term rating of AAA with a Stable Outlook to the Sales Tax Securitization Corporation Sales Tax Securitization Bonds, Taxable Series 2018D.

Appendix

On November 1, 2017, KBRA assigned the inaugural rating to the STSC Sales Tax Securitization Bonds. Below is an excerpt from Rating Determinant 5: Coverage and Bond Structure. To access the report, click here.

KBRA modeled six stress cases to assess the ability of the pledged Sales Tax Revenues to cover debt service requirements under adverse conditions. In all of these cases, KBRA conservatively assumed that there would be no growth in the pledged revenues base from its 2016 peak and that the Corporation immediately issues the maximum allowed parity debt using the 4x Additional Bonds Test. The resulting maximum annual debt service under these conditions is assumed at approximately $165 million. KBRA notes that in all of these stress scenarios the pledged revenues substantially covered annual debt service requirements.

Base Case

In the base case, KBRA assumed there is no growth in pledged revenues from the peak in 2016. Therefore, KBRA used $54.7 million as the maximum monthly cash flow from pledged revenues in its base case, and as the starting point in all of the stress scenarios. KBRA also assumes that the Corporation immediately issues enough debt to reach the threshold of the 4x ABT.

Stress Case 1 – Distribution Shock

In this case, KBRA targets any vulnerability the Corporation might have to the fact that there is a monthly sweep of excess cash flow back to the City. To test this vulnerability, KBRA modeled the impact of a 25% decline in revenues in month ten of every year followed by two months of zero cash flow. KBRA repeats the scenario in every year of the transaction.

Stress Case 2 – Population Erosion

KBRA notes there have been several instances of extreme population loss in major U.S. municipalities – Detroit being one of the most notable. In the period 1990 to 2016 Detroit lost 34.5% of its population. While Chicago has none of the industry concentration risk that Detroit had, KBRA nonetheless modeled an extreme population loss scenario. In this test KBRA assumes, that population steadily and consistently declines at 1% per year for the life of the Bonds. Further, KBRA assumes that each 1% decline in population translates into a 2% decline in retail sales activity. Despite the compounding effect of these population and retail sales declines, the cash flow remains sufficient to meet debt service requirements over the life of the Bonds.

Stress Case 3 – Legislature Lowers Sales Tax Rates

KBRA notes that it is possible, despite a non-impairment covenant on certain characteristics of the pledged revenues, it is hypothetically possible that future legislators could decide to lower sales tax rates regardless of the impact this may have on bondholders. To test this highly unlikely scenario KBRA models the impact of the combined State and City sales tax rate returning to 5%, to the level it was in the 1980s.

Figure 20

KBRA Stress Scenarios	KBRA Base Case	Stress Case 1 Distribution Shock	Stress Case 2 Population Erosion	Stress Case 3 Legislature Lowers Sales Tax Rates
Assumptions:	Assumes no growth in sales tax collection based on pledged revenues collected in the last 12 months	Assumes distribution of pledged revenues declines in every month 9 and 10 by 25% and zero distribution in month 11 and 12 over the life of the bonds	Assumes 1% annual decline in City's population, which translates to a 2% annual decline in pledged revenues over the life of the bonds	Assumes HRM sales tax and local share sales tax rate reverted to 1980's level, at 5%, resulting in a 33.3% decline in pledged revenues over the life of the bonds
An annual admin expense of $250,000 has been taken out of the pledged revenue before applying to debt service				
Pro Forma DSCR				
2019	4.01x	3.17x	3.96x	2.67x
2020	4.01x	3.17x	3.89x	2.67x
2021	4.01x	3.17x	3.81x	2.67x
2022	4.01x	3.17x	3.73x	2.67x
2023	4.01x	3.17x	3.66x	2.67x
2028	4.01x	3.17x	3.31x	2.67x
2033	4.01x	3.17x	2.99x	2.67x
2038	4.01x	3.17x	2.71x	2.67x
2043	4.01x	3.17x	2.45x	2.67x
2048	4.01x	3.17x	2.22x	2.67x

Source: KBRA

Stress Case 4 – Double Dip, Double Dose Great Recession

KBRA notes that Chicago experienced a 14% decline in its sales tax receipts during the Great Recession. KBRA doubled this decline to 28% and allowed it to persist for 3 years. Then after a 2-year period during which sales tax receipts climb half way back to their starting point, KBRA modeled a second decline of 28%.

Stress Case 5 – Double Dip Great Depression

KBRA notes there were five consecutive years of personal consumption declines during the Great depression. The net impact of these declines was a 52.8% total decline in total personal consumption. KBRA modeled this same scenario, then, as in Case 4, repeated the decline after a partial recovery. This magnitude of second decline did not occur during the Great Depression.

Stress Case 6 – Legislature Stops Distributing All Local Share Sales Taxes

In this scenario KBRA modeled the impact of the State taking the highly unlikely and possibly illegal action to stop distributing all Local Share sales taxes (more than just the portion subject to annual appropriation).

Figure 21

KBRA Stress Scenarios	Stress Case 4 Double Dip, Double Dose Great Recession	Stress Case 5 Double Dip Great Depression	Stress Case 6 Legislature Stops Distributing All Local Share Sales Taxes
Assumptions:	Assumes a 2x the effect of the Great Recession with 28% drop of pledged revenues sustained for 3 consecutive years; Followed by a 2-year recovery period to half of what was lost; Followed by another recession with 28% drop of pledged revenues sustained for 3 consecutive years, total declines = 42% over the life of the bonds	Assumes the effect of the great depression over a period of 9 consecutive years. Pledged revenues decline by 9%, 13%, 16%, and 2%. Total declines approximately 40%. (2017 - 2020) Pledged revenues then recover to half of what was lost for one year, roughly 20% (2021) Pledged revenues decline again by 11%, 12%, and 2%. Total revenue declines = 53% over the life of the bonds	Assumes loss of all local share sales tax over the life of the bonds
An annual admin expense of $250,000 has been taken out of the pledged revenue before applying to debt service			
Pro Forma DSCR			
2019	2.89x	3.64x	1.76x
2020	2.89x	3.12x	1.76x
2021	2.89x	2.50x	1.76x
2022	3.45x	2.41x	1.76x
2023	2.32x	3.21x	1.76x
2028	2.32x	1.90x	1.76x
2033	2.32x	1.90x	1.76x
2038	2.32x	1.90x	1.76x
2043	2.32x	1.90x	1.76x
2048	2.32x	1.90x	1.76x

Source: KBRA