The CCFB
Chicago Cultural Facilities Bond

CREDIT ANALYSIS

Daniel Ronan & Sarah Batson

PA 391F Advanced Financial Management

December 2024

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Legal Authority

Museums in the Park

Illinois Finance Authority Act

Chicago HOT Tax Authorization - 65 ILCS 5/8-3-13

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11 World-Renowned Museums

Adler Planetarium

Art Institute of Chicago

The DuSable Black History Museum and Education Center

Peggy Notebaert Nature Museum of the Chicago Academy of Sciences

Field Museum

The National Museum of Puerto Rican Arts and Culture

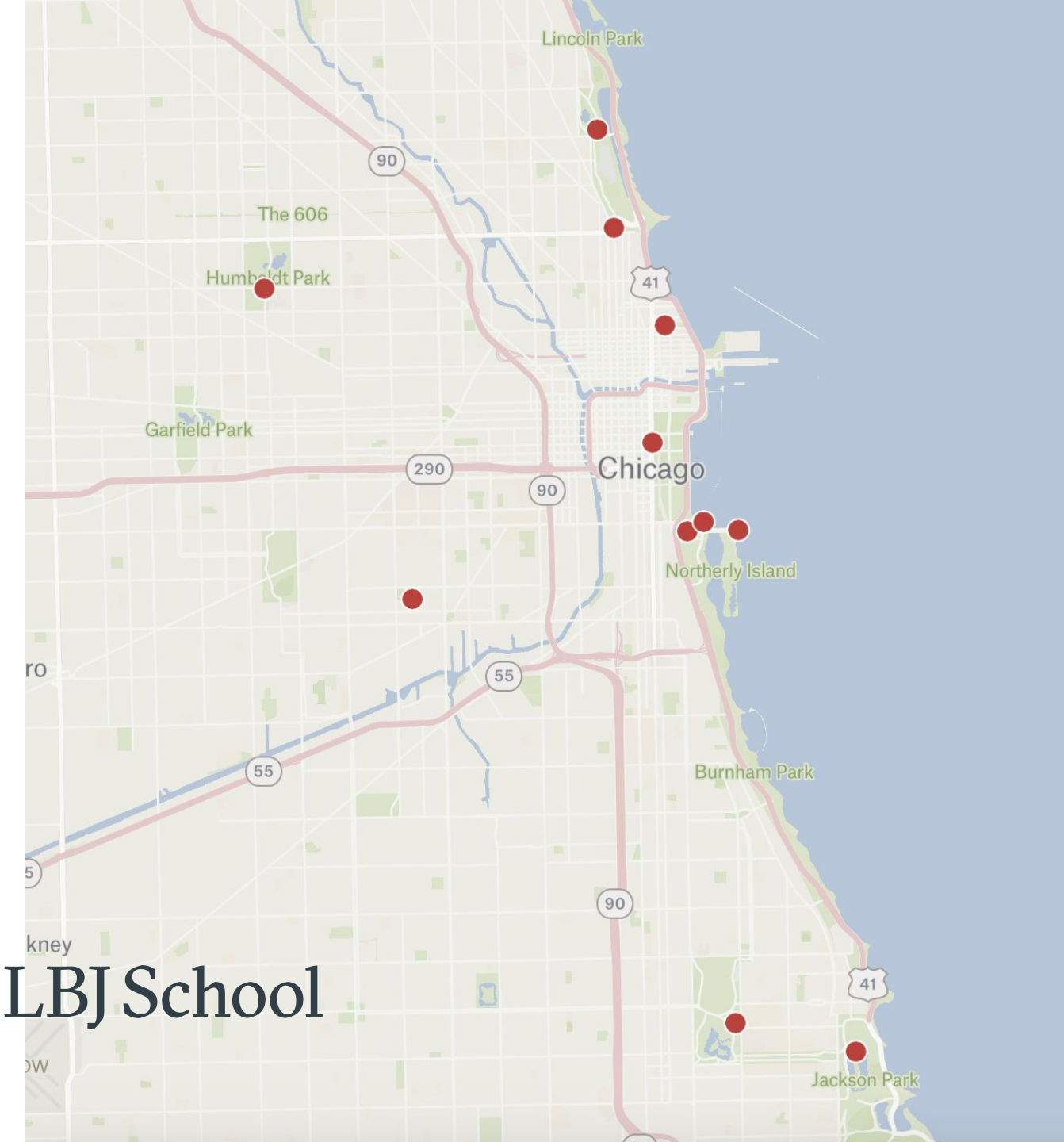
Chicago History Museum — Sharing Chicago Stories

Griffin Museum of Science+Industry

National Museum of Mexican Art

Shedd Aquarium

MCA Chicago



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Energy Efficiency Improvements

HVAC System Replacements
LED Lighting Upgrades
Heat Loss Prevention

$49.7 Million Bond

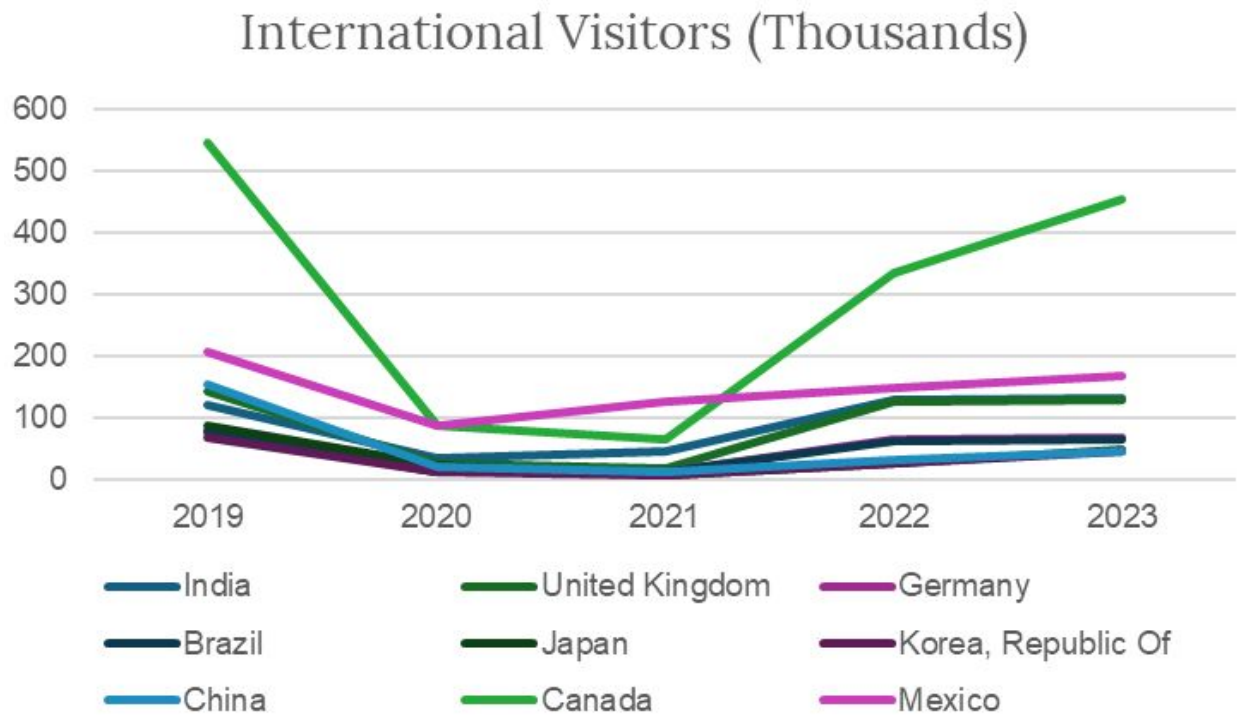
HVAC system replacements can cost over $1 million

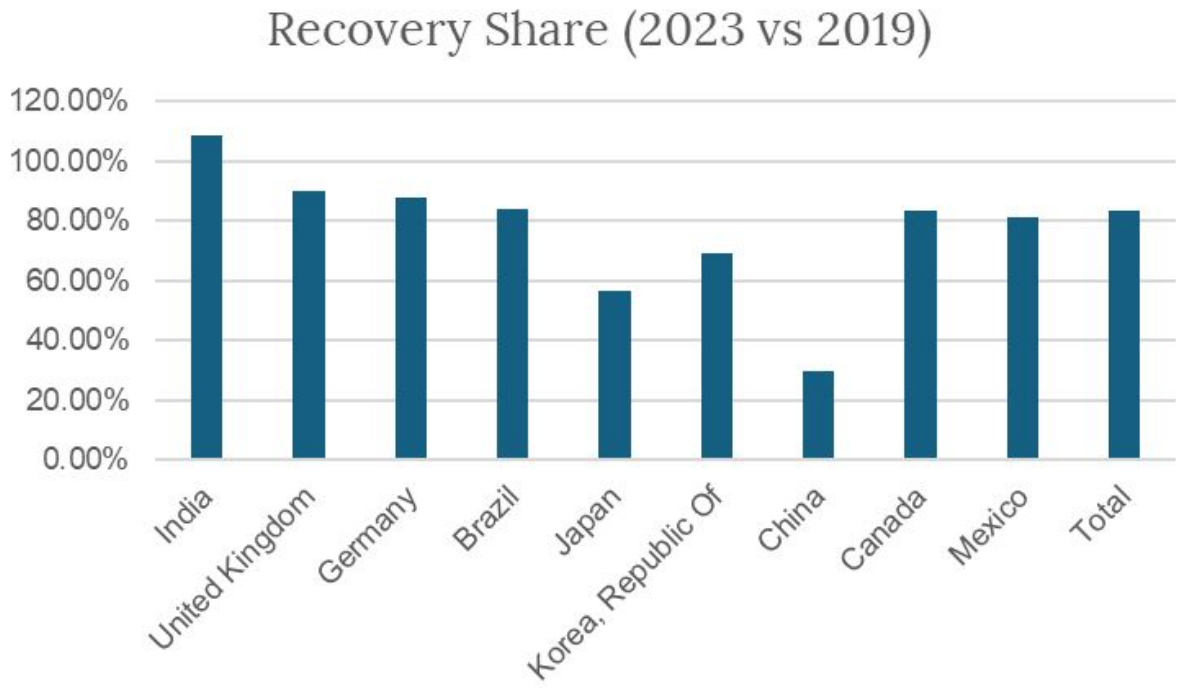
- Diversity in facility size, geography, and history
- Scale of the flagship museums

$4 million per institution

$6 million budgetary cushion for novel projects and contingency

Chicago Tourism





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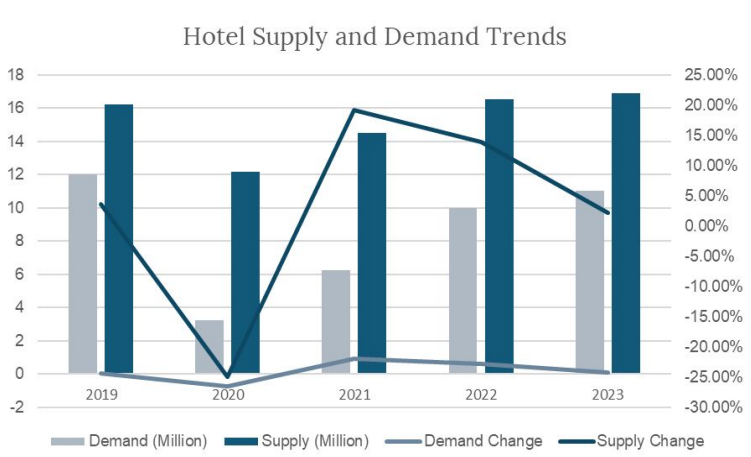
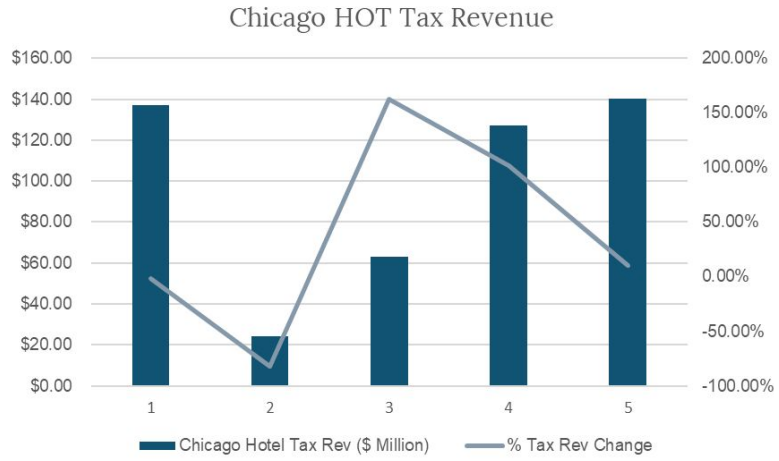
Economic Trends





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Environmental

Securitized Green Bond

Climate Bond Initiative Taxonomy includes Energy Efficiency

Process

Public announcement

Reviewed by Climate Bonds Standard Board

Confirm compliance with report after issuance

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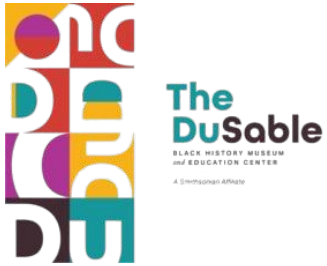
Social

Diverse Cultural Institutions

Benefits educational enrichment

Important immersive learning



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Governance

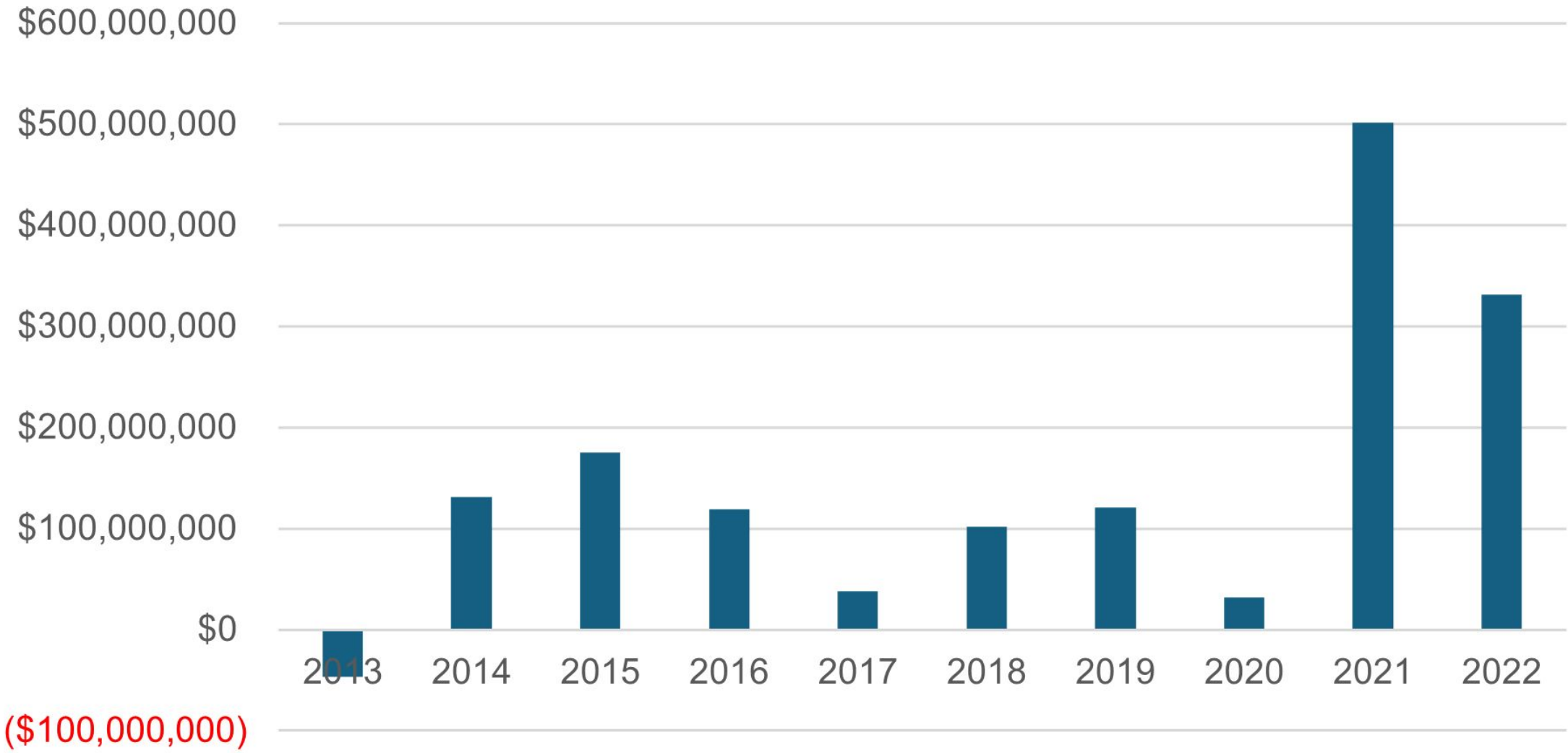
Nonprofit best practices

Access to bond market capital

Learning opportunity for future investment

Improve speed and quality of important facility improvements

Museums in the Park Total Net Revenues per Year



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Projected Revenues

Average 2013-2019 revenues, no growth

- Avoids COVID outlier
- Avoids post-COVID federal funds
- Robust, includes economic slowdown

Annual revenue $57,977,424.4

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Revenue Risks

Volatile tourism industry

- Public health emergency
- Weather disruptions
- Dependent on flagship institutions

Hotel Occupancy Tax Revenue Guarantee Mitigates Risk

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Flow of Funds

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Debt Financing Assumptions

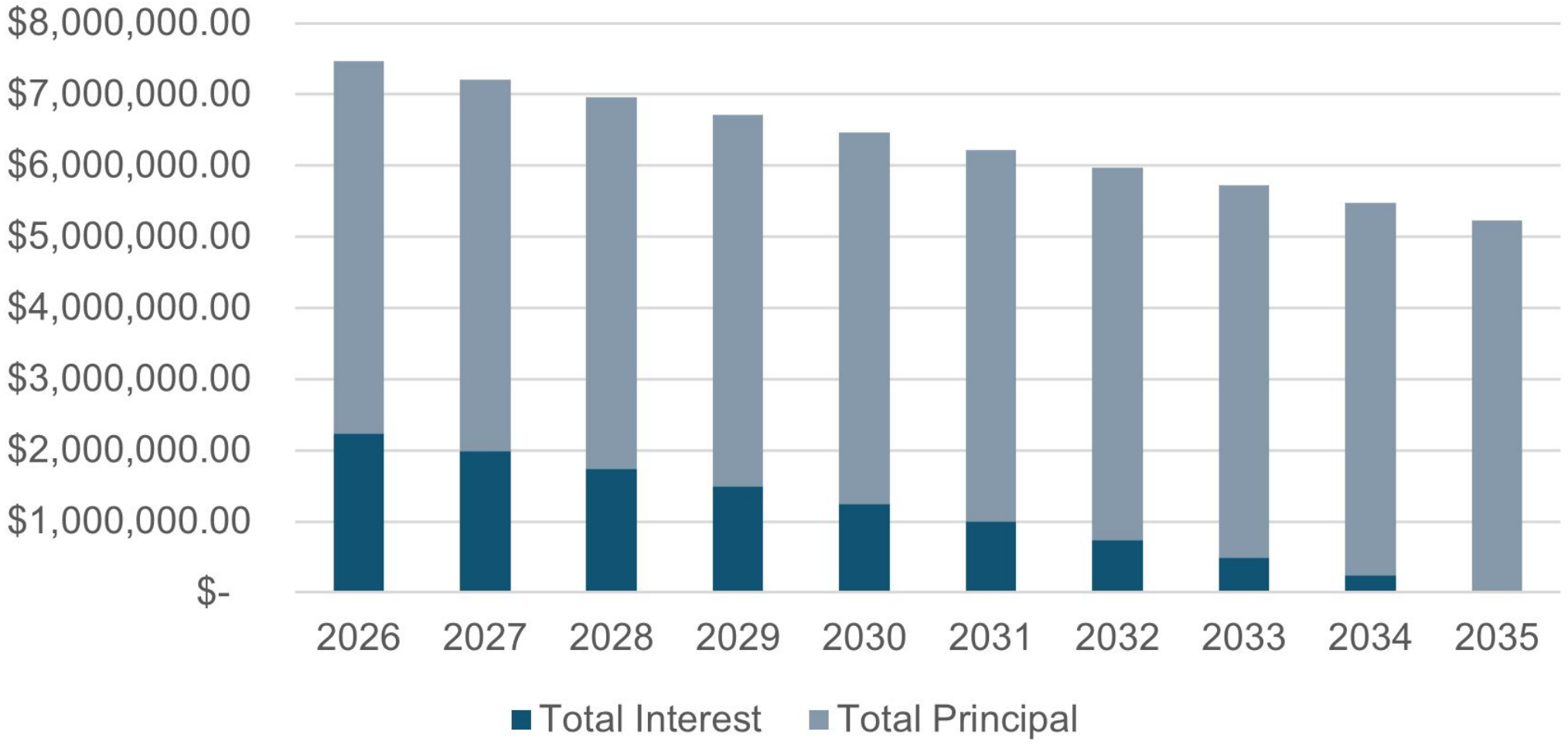
$49.7 Million Chicago Cultural Facilities Bond

- *10-year revenue bond, double barrel with Chicago HOT tax*
- *No call option, 2034 maturity*
- *Equal principal amortization*
- *5% coupon rate*
- *Debt service reserve fund*

Sources		
	Par Amount of Bonds	$ 49,748,646.28
	Original Issue Premium	$ 5,474,961.58
Total Sources		**$ 55,223,607.86**

Uses		
	Facility Projects	$ 50,000,000.00
	Debt Service Reserve Fund Deposit	$ 4,974,864.63
	Issuance Cost	$ 248,743.23
Total Uses		**$ 55,223,607.86**

Debt Service to Maturity



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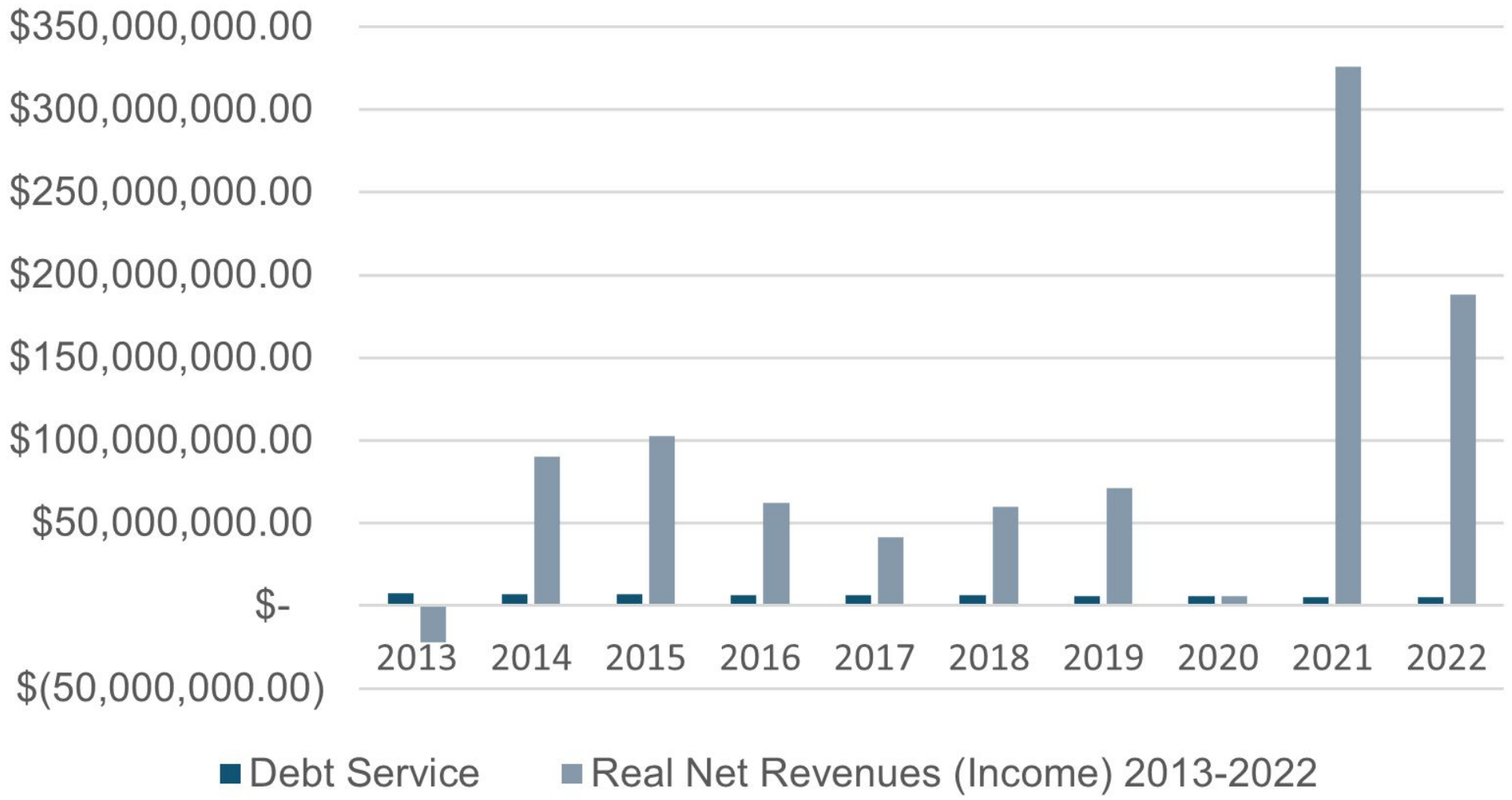
Historic Revenues and Debt Service



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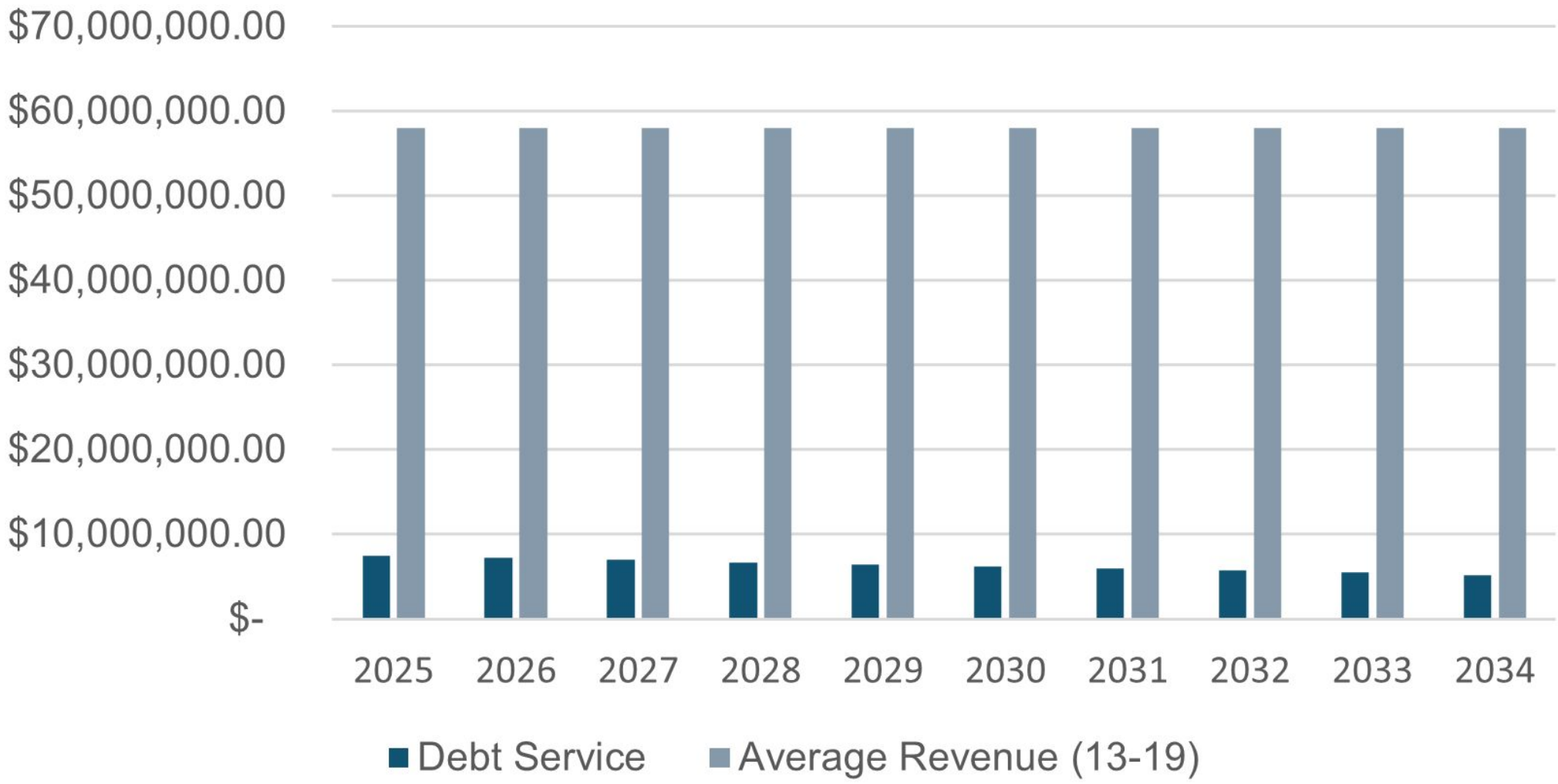
Projected Revenues and Debt Service



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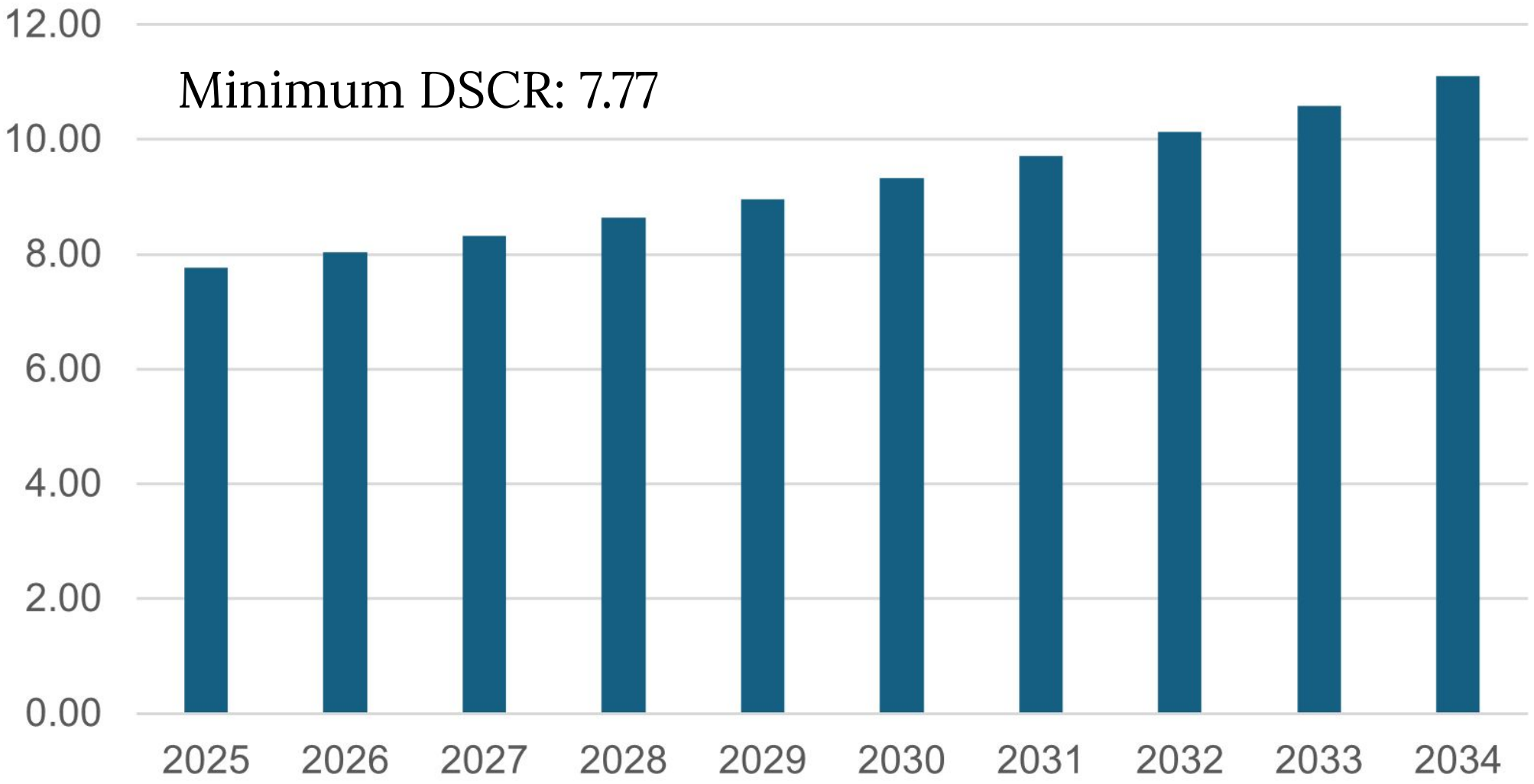
Debt Service Coverage Ratio



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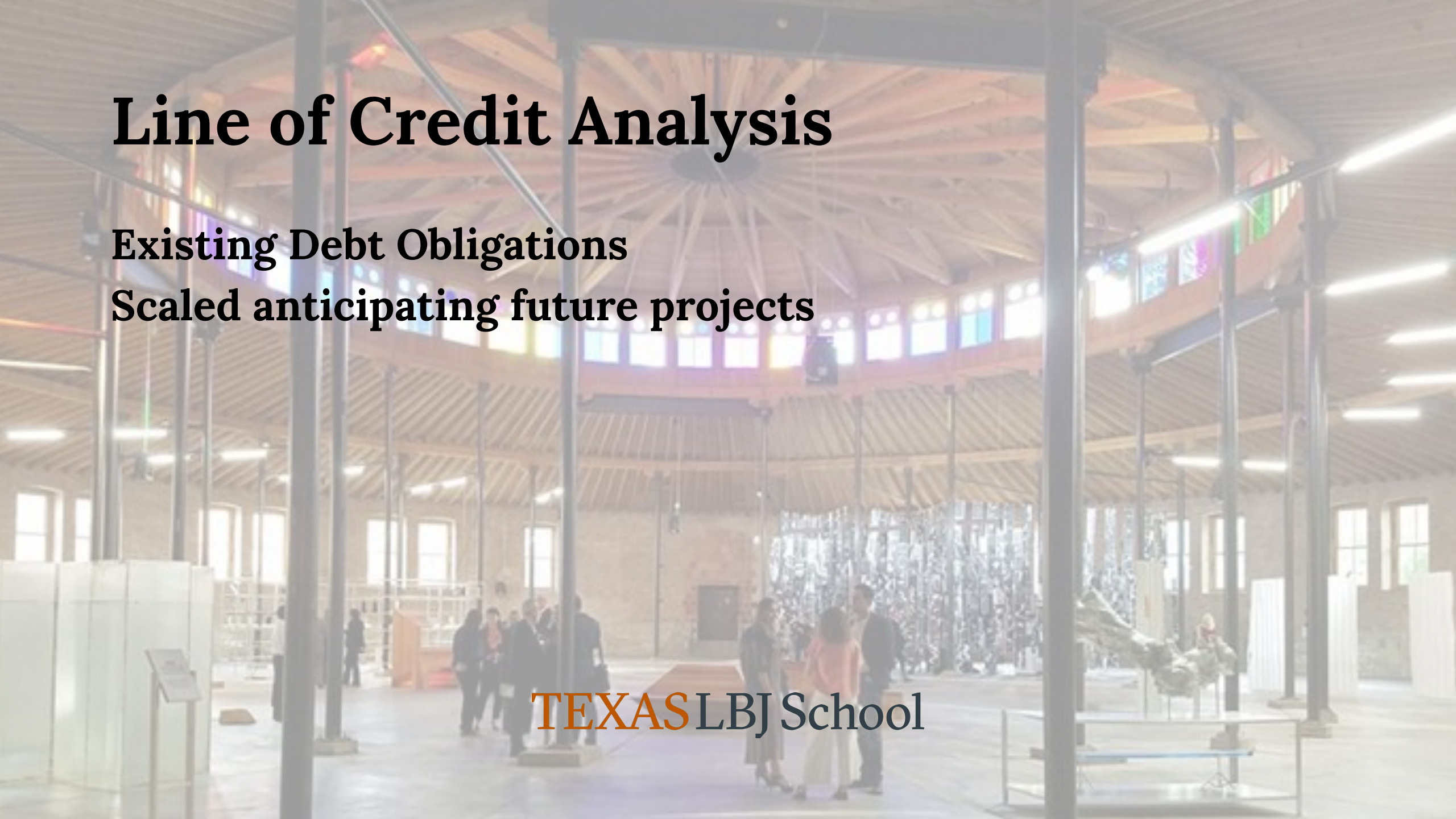
Line of Credit Analysis

Existing Debt Obligations
Scaled anticipating future projects



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CREDIT ANALYSIS MEMO

Date: December 12, 2024
To: Senior Credit Analyst Martin Luby
From: Sarah Batson & Daniel Ronan, Financial Analysts
Subject: Chicago Cultural Facilities Bond

Executive Summary

The Chicago Cultural Facilities Bond is a $49.7 million dollar ten year revenue bond with a 5% coupon rate and an equal principal amortization structure. It represents the first bond issue coordinated by the eleven world class museums that are members of the Museums in the Park organization. We anticipate a negotiated bond sale due to the pioneering nature of this financing and look forward to educating investors on the quality of our credit[1]. The Illinois Finance Authority will manage the issuance of these revenue bonds based on its legal authority under the Illinois Finance Authority Act. The primary source of repayment is a pledge of net revenues from all eleven museums. This is supported by a guarantee of hotel occupancy taxes from the City of Chicago. From 2013 to 2019 these eleven museums had an average annual revenue of $57,977,424.4 and are expected to maintain this level of revenue due to significant recovery after COVID. Based on credit capacity analysis this bond will maintain a minimum of a 7.77 debt service coverage ratio. This bond issuance will enable all of these institutions to invest in energy efficiency upgrades that will result in cost savings and increase the sustainability of their future operations. This bond will be labeled a "green bond" based on the use of proceeds for an activity listed under the Climate Bond Initiative and will advance several key ESG priorities by supporting diverse cultural institutions and developing the nonprofit governance of these institutions. These critical investments are not only sound for investors interested in the stable revenues and tax exemption offered, but allow investors to be part of ensuring these cultural institutions are fiscally and environmentally sound in the future[2].

[1] Fruits, E., Booth, J., Pozdena, R. & Smith, R. 2008. "A comprehensive evaluation of the comparative cost of negotiated and competitive methods of municipal bond issuance." Municipal Finance Journal 28(4), 15–41. Fruits et al MFJ 2008.pdf

[2] Wynn 2019. "Millennials show increasing interest in impact muni bonds" The Bond Buyer BB Jan 2019 article Millennials show increasing interest in impact muni bonds-1.docx

Use of Funds

This bond issuance will assist the City of Chicago to access additional capital for important energy efficiency improvements for the eleven member institutions of Museums in the Park. The non-profit is an alliance of the following museums, which partner to further their collective interests. The members of organization include: The Art Institute of Chicago, the Museum of Contemporary Art, the Shedd Aquarium, the Adler Planetarium, the Chicago History Museum, the National Museum of Puerto Rican Arts and Culture, the National Museum of Mexican Art, the DuSable Black Museum & Educational Center, the Field Museum of Natural History, the Griffin Museum of Science and Industry, and the Peggy Notebaert Nature Museum.

Each member of the Museums in the Park will receive $4 million in bond proceeds with additional budgetary slack included in the par amount to cover construction delays or the consideration of unique projects or opportunities for more comprehensive improvements. These proceeds will benefit a diverse array of energy efficiency projects including: rooftop solar arrays and winterizing building facilities. Access to these funds will improve the quality and timeliness of these upgrades and result in cost savings due to reduced energy expenses. By improving access and responsiveness of bond financing to institutions led by communities of color and fostering best practices in governance in the non-profit sector this bond will comprehensively address ESG factors. In particular, funding infrastructure improvements for the DuSable Black Museum & Educational Center, the National Museum of Mexican Art, and the National Museum of Puerto Rican Arts and Culture will ensure these institutions continue to thrive and can benefit the educational enrichment of Chicago students and visitors. The following are examples of projects that are under consideration:

- Solar panel roof array on the expansion of The Art Institute of Chicago;
- Weatherization and insulation improvements for the National Museum of Mexican Art;
- System-wide HVAC at the Field Museum of Natural History; and
- LED lighting upgrades at the Chicago History Museum.

Legal Authorization & Structure

This issuance will have a flow of funds through the Museums in the Park, a 501(c)(6) which acts as a fiscal agent of the Illinois Finance Authority that will issue tax-exempt bonds for capital projects. Since 2004, the IFA has been authorized by the State of Illinois to issue tax-exempt bonds.This authority provides the legal avenue by which Museums in the Park is able to act as the collating entity for museum revenues to pay both the principal and interest (the debt service) of the IFA. This alignment of bond proceeds through the auspices of Museums in the Park, an entity committed to the benefit of its membership, underscores the relationship between and among museum entities. Without Museums in the Park, there would not be a convening entity that could galvanize interstate in bond finance, and, moreover, ensure that participating museums would commit to the endeavor of leveraging debt for capital purposes.

The collaboration between the 11 museums that comprise Museums in the Park helps to foster wider possibilities of museum finance, helping leverage trusted institutions for the betterment of civic pride and strategic institutional investment. By using bond finance for capital projects at these beloved institutions, these Chicago-area institutions will be better equipped to serve both their existing audiences and prospective community anteedees, helping amplify the reach of these community cultural anchors.

Economic Factors

The proposed bond issuance is supported by sound city financing trends, as evidenced by the rebounding tourism market since the onset of COVID-19 and the subsequent economic recovery. By extension, strengthening hotel demand has led to a resurgence in HOT tax revenues, as mirrored by similar hotel revenue trends. Most demonstratively, from 2020 to 2021, both hotel and HOT text revenues rebounded nearly 200%, indicating the resiliency of the tourism market, and, by extension, the undergirding guarantee of the HOT tax, which supports the proposed bond issuance.

Similarly, tourism nationals from around the world have rebounded in their visitation numbers. This demand trend lends credence to both the resurgence of museum attendance and HOT taxes for purposes of debt service. While some may attribute the swings in museum and HOT tax revenues as an indication of unreliable revenue sources, it is important to note that Chicago is the third largest city in the country, with international tourists, according to Choose Chicago, visiting Chicago on their fifth or sixth visit to the United States.

According to the American Alliance of Museums, on average, museum tourists spend 60% more in tourism dollars than non-museum goers, emphasizing the economic capacity of museums, and the potential that real estate projects can have in unlocking additional revenue for taxing jurisdictions – the needed hotel occupancy tax revenue that supports the guarantee for the proposed bond issuance.

Both the Field Museum of Natural History and The Art Institute of Chicago have outstanding bond issuances to pay for capital improvements at their respective institutions. While these projects may hamper the relative amounts of revenue available for debt service, both of these institutions have demonstrated that they are both experienced and comfortable in leveraging debt financing for capital improvements. Moreover, the fact that these institutions have experience in leveraging debt finance bodes well for their fellow institutions within Museums in the Park, allowing these museums to offer peer perspectives and insight into a financing tool rarely touched by museum organizations.

Revenue Analysis

When aggregated, the Museums in the Park revenues sum to over $57 million in annual revenues. As noted below, the debt coverage factor more than compensates for the proposed projects of the bond issuance, denoting stability of the proposed funding source. These revenues are based on historic 2012-2022 net revenues after debt service. In rationalizing projected future revenues, we determined that omitting 2012, a zero-revenue year (due to the last economic recession), as well as COVID (2020-2022), created a seven-year interval (2013-2019) of relatively stable revenues from which to forecast. Accordingly, the ten year bond is based on a projection of revenues consistent with these average revenues, conservatively anticipating no growth.

Bond Structure

The Chicago Cultural Facilities Bond is a $49.7 Million dollar fixed rate tax exempt bond credit. This issuance is a 10-year revenue bond with a revenue guarantee provided by the City of Chicago Hotel Occupancy Tax. The bond has no call option and has a 5% coupon rate. It will be issued on January 1st, 2025 and mature on January 1st, 2034.

Repayment is pledged by the eleven museums that are members of the Museums in the Park organization. This pledge extends to income that supersedes operations and maintenance expenses and any pre-existing debt service obligations. The obligations of each museum will be proportional to their ability to pay in each year and determined annually so that their total contribution equals one and a half times the annual debt service requirement. This is established through a legal commitment to meet annual contribution requirements set by the Museums in the Park 501(c)(6). This nonprofit entity acts to manage these ongoing obligations and pass the annual debt service payments to the Illinois Finance Authority. The Illinois Finance Authority will then pass the payments to investors and any additional revenue contributed by the museums will be passed to the debt service reserve fund. In the case that the eleven museums have insufficient revenue to cover the debt service payments, the City of Chicago has pledged to use its revenue from hotel occupancy taxes to satisfy the requirements of the bond.

The bond has an equal principal amortization structure with annual principal payments of $4.9 Million. This results in an accelerated debt service structure with more than half of the total debt service due before the

halfway point of the bond's maturity. This debt service structure provides assurances to investors by providing a faster repayment of the majority of the debt service. There is a tradeoff in the generational inequity that results from having museum visitors and potentially Chicago HOT taxpayers before 2029 paying a larger portion of the debt service[3]. This factor is a consideration due to the short term of maturity. These projects will continue to function and benefit the museums and their visitors beyond 2034. Given the revenue source funding the debt service is principally provided by visitors to the museums and the City of Chicago, the typical framework for considering the equity of financing does not apply exactly[4]. These facilities are always financed by individuals that visit them temporarily and are also used primarily by visitors. This provides some equity in repayment by ensuring residents of the city are not paying for facilities that are principally used by individuals who live elsewhere.

This par size is based on $50 Million dollars for facility projects, $4.97 Million dollars for a debt service reserve fund deposit, and $248 Thousand dollars to cover the cost of issuance. These total to $55.2 Million dollars in bond uses. This matches the total bond sources for the bond of $55.2 Million dollars which includes the par amount of $49.7 Million dollars and $5.4 Million dollars in issuance premium.

Compared to the anticipated museum revenues these debt service obligations result in a minimum debt service coverage ratio of 7.77. This ratio will increase as the bond nears maturity and the annual debt service obligations are smaller. The bond size is dictated by the financial needs of the facility improvements intended to be financed and is not determined by the capacity of the revenue stream.

Risk Analysis & Future Issuance

The primary risks or potential weaknesses associated with this bond credit are related to the instability of the revenue sources. Both the museum revenues and the hotel occupancy tax revenues are subject to frequent variation and disruption. These revenues can be reduced by any events which reduce tourism and travel including public health emergencies, weather disruptions, and severe maintenance issues. Maintenance and public health emergencies are hard to predict. Severe ice storms that disrupt flights are only likely to increase in frequency in Chicago as Climate Change makes severe storms more common[5]. With the addition of the city's hotel occupancy tax guarantee, the relatively short maturity of the bond, and the existence of and ongoing obligations to the bond's debt service reserve fund, investors can have confidence none of these risks are likely to jeopardize repayment.

As the first bond issuance from these eleven museums coordinated through the Museums in the Park organization, there is no outstanding debt. This bond issuance can serve as a proof of concept and lead to future investments using this line of credit. Based on our analysis of historic revenues, the revenues of the eleven museums could be leveraged to issue a fixed rate bond credit of more than $400 million dollars. There are no current plans to issue additional bonds and we do not anticipate any future issuance until the maturity of this initial issuance.

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[3] Robbins, Mark D., Bill Simonsen and Bernard Jump. Jr. 2000. "Maturity Structure and Borrowing Costs: The Implications of Level Debt Service." Municipal Finance Journal 21(3): 40-64. Robbins et al MFJ 2000.pdf

[4] "Economic and Community Impact Statement." *fieldmuseum.org*, The Field Museum, Mar. 2012, www.datocms-assets.com/44232/1632763727-tfm-20impact-20statement0.pdf.

[5] Government Finance Officers Association. 2021. "Best Practices: ESG Disclosures" https://www.gfoa.org/materials/esg-disclosure