STATE OF ILLINOIS

OFFICE OF THE AUDITOR GENERAL

2020 ANNUAL REVIEW

INFORMATION SUBMITTED BY THE RETIREMENT PLAN FOR CHICAGO TRANSIT AUTHORITY EMPLOYEES

NOVEMBER 2020

FRANK J. MAUTINO

AUDITOR GENERAL

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OFFICE OF THE AUDITOR GENERAL
FRANK J. MAUTINO

To the Legislative Audit Commission, the Speaker and Minority Leader of the House of Representatives, the President and Minority Leader of the Senate, the members of the General Assembly, and the Governor:

This is our 2020 Annual Review of Information Submitted by the Retirement Plan for Chicago Transit Authority Employees.

The review was conducted pursuant to Public Act 95-708 which amended the Illinois State Auditing Act by adding a requirement for the Auditor General to annually review and report on information submitted by the Board of Trustees of the Retirement Plan for Chicago Transit Authority Employees.

The report for this review is transmitted in conformance with Section 5/3-2.3(e) of the Illinois State Auditing Act.

Frank J. Mautino

FRANK J. MAUTINO
Auditor General

Springfield, Illinois
November 2020

REPORT DIGEST

2020
ANNUAL REVIEW

Release Date:
November 2020

Review performed in accordance with **Public Act 95-708**

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EXECUTIVE SUMMARY

Review of Information Submitted by the Retirement Plan for Chicago Transit Authority Employees

The Illinois State Auditing Act requires the Retirement Plan for Chicago Transit Authority Employees (Retirement Plan or Plan) to submit to the Office of the Auditor General (OAG) an audit, an annual statement, and an actuarial statement by September 30 of each year. The OAG reviewed the documents submitted by the Retirement Plan and concluded that they met the requirements of the Auditing Act.

The funded ratio of the Retirement Plan decreased slightly from 52.62 percent in the January 1, 2019 Valuation to 52.55 percent in the January 1, 2020 Valuation. When the funded ratio declines below 60 percent, the Pension Code requires that contribution rates be increased so that the funded ratio is projected to reach 60 percent within 10 years. The contribution rates certified by the Retirement Plan Board for 2021 were **unchanged** from the 2020 contribution rates. For both 2020 and 2021, the employer contribution rate is 20.647 percent (which is net of the employer debt service credit of 6% of pay) and the employee contribution rate is 13.324 percent.

The January 1, 2020 Actuarial Valuation concluded that the contribution rates applicable for Plan year 2021 would result in the Plan's funded ratio reaching the statutorily required 60 percent level within 10 years (i.e., by 2030) and therefore, there was no need to increase the contribution rates.

The OAG and our consultant, Aon, reviewed the Retirement Plan's assumptions contained in the January 1, 2020 Actuarial Valuation and concluded that they were not unreasonable in the aggregate. However, we believe that two of the assumptions, investment return and inflation, should be monitored and justified on an annual basis. We have consistently made this recommendation for a number of years. However, the **Retirement Plan failed to annually review** either of these two assumptions as recommended. If the Retirement Plan again fails to monitor and justify these two critical assumptions prior to next year's valuation, the likelihood increases that these assumptions may fall outside of what we consider reasonable.

The 8.25 percent investment return assumption used by the Plan is at the upper edge of reasonable based on the Plan's asset allocation and remains at the upper end of investment return assumptions used by other plans. The underlying inflation assumption is on the upper end of the reasonable range based on current and recent historical capital market assumptions. The Plan's investment advisor conducted projections that found an expected 10-year return of 8.18 percent.

This report does not constitute an audit as that term is defined in generally accepted government auditing standards.

ANNUAL REVIEW RESULTS AND CONCLUSIONS

STATUTORY REQUIREMENTS

The OAG reviewed the documents submitted by the Retirement Plan and concluded that they met the requirements of the Auditing Act.

The Illinois State Auditing Act (30 ILCS 5/3-2.3(e)) requires the Retirement Plan for Chicago Transit Authority Employees (Retirement Plan or Plan) to submit to the Office of the Auditor General (OAG) an audit, an annual statement, and an actuarial statement by September 30 of each year.

- On September 30, 2020, the Auditor General received these documents from the Retirement Plan.
- The OAG reviewed these documents and concluded that they met the requirements of the Auditing Act.

In addition, the Illinois Pension Code (40 ILCS 5/22-101(e)(3)) requires the Retirement Plan to determine, based on a report prepared by an enrolled actuary, the estimated funded ratio of the Retirement Plan's total assets to its total actuarially determined liabilities.

- The Plan is also required to determine the employee and employer contribution rates needed to meet funding requirements established by the Pension Code.
- The Auditor General is required to review the determination and the assumptions on which it is based and determine whether they are "unreasonable in the aggregate". (pages 4-5)

REVIEW OF ACTUARIAL VALUATION

The Retirement Plan submitted the Actuarial Valuation as of January 1, 2020, to the OAG on September 30, 2020. This Actuarial Valuation was presented to the Retirement Plan Board at its July 23, 2020 meeting. At that meeting, the Board of Trustees accepted the January 1, 2020 Actuarial Valuation and certified the employer and employee contribution rates for 2021.

The Retirement Plan's assumptions were not unreasonable in the aggregate.

The OAG and our consultant, Aon, reviewed the Retirement Plan's assumptions contained in the January 1, 2020 Actuarial Valuation and concluded that they were not unreasonable in the aggregate. The investment return assumption continues to be higher than most public plans but is supported by an investment return analysis conducted by the Plan's investment advisor and a high underlying inflation assumption. The underlying inflation assumption is on the upper end of the reasonable range based on current and recent historical capital market assumptions.

While we recognize the Plan's policy of completing an experience study every five years, we believe that **these two assumptions, investment return and inflation, should be monitored and justified on an annual basis**. We have consistently made this recommendation for a number of years.

However, **the Retirement Plan failed to annually review** either of these two assumptions as recommended. If the Retirement Plan again fails to monitor and justify these two critical assumptions prior to next year's valuation, the likelihood increases that these assumptions may fall outside of what we consider reasonable.

In 2019, the Plan's actuary completed an experience study for the five year period ending December 31, 2017. An experience study assesses how well assumptions used by the Plan align with the actual experience of the Plan. If past experience differs from the assumptions used, then the actuary may recommend revisions to the assumptions used in future valuations. As a result of the experience study, several of the assumptions used in the Plan's January 1, 2019 Actuarial Valuation were revised. However, the investment return assumption remained unchanged at 8.25 percent. In the Plan's January 1, 2020 Actuarial Valuation, there were no changes in actuarial assumptions compared to the prior year.

Our prior reviews have concluded that the investment return assumption used by the Plan was at the upper range of investment return assumptions for comparable plans. The 8.25 percent investment return assumption is at the upper edge of reasonable based on the Plan's asset allocation and remains at the upper end of investment return assumptions used by other plans. The Plan's December 31, 2019 Investment Report shows that the Plan's investments have earned 7.7 percent over the past 10 years. The Plan's investment advisor conducted projections that found an expected 10-year return of 8.18 percent. We recommend that the investment return and inflation assumptions should be monitored and justified on an annual basis.

Key Retirement Plan Information

Plan investment return assumption	8.25%
10-year historical rate of return	7.7%
Plan assets	$1.883 billion
Plan liabilities	$3.584 billion
Funded ratio	52.62%
Employee contribution rate (2021)	13.324%
Employer contribution rate (2021)	20.647%

The Retirement Plan's active participant headcount decreased from the prior year. Additionally, the ratio of active participants to annuitants continued to decrease. A study sponsored by the National Association of State Retirement Administrators titled the *Public Fund Survey Summary of Findings for FY 2018* states "*When combined with an unfunded liability, however, a low or declining ratio of actives to annuitants can cause fiscal distress for a pension plan sponsor….*" (pages 4-9)

CONTRIBUTION RATES

The Pension Code requires the Chicago Transit Authority (CTA) to contribute 12 percent of pay, less up to a 6 percent credit for debt service paid on the bonds issued for contribution to the Retirement Plan; employees are required to pay 6 percent of pay. The Pension Code further requires that contribution rates be increased if the funded ratio is projected to decline below 60 percent prior to 2040, with the CTA paying two-thirds and employees paying one-third of the required contribution.

The funded ratio of the Retirement Plan decreased slightly from 52.62 percent in the January 1, 2019 Valuation to 52.55 percent in the January 1, 2020 Valuation. At January 1, 2020, the Plan's assets totaled $1.883 billion and the actuarial accrued liability was $3.584 billion, according to the Plan's January 1, 2020 Actuarial Valuation.

Since the funded ratio of the Plan was below 60 percent in the January 1, 2020 Valuation, the Pension Code requires the Plan to "*...determine the increased contribution required each year as a level percentage of payroll during the years after the then current year…so the funded ratio is projected to reach at least 60% no later than 10 years after the then current year and include that determination in its report.*" (40 ILCS 5/22-101(e)(3)) The contribution rates certified by the Retirement Plan Board for 2021 were unchanged from the 2020 contribution rates. For both 2020 and 2021, the employer contribution rate is 20.647 percent (which is net of the employer debt service credit of 6% of pay) and the employee contribution rate is 13.324 percent.

The January 1, 2020 Actuarial Valuation concluded that the contribution rates applicable for Plan year 2021 would result in the Plan's funded ratio reaching the statutorily required 60 percent level within 10 years (i.e., by 2030) and therefore, there was no need to increase the contribution rates. (pages 9-11)

AGENCY REVIEW

A draft of this Review was provided to the Retirement Plan for their review.

This report does not constitute an audit as that term is defined in generally accepted government auditing standards.

This Annual Review was conducted by OAG staff with the assistance of our consultant, Aon.

JOE BUTCHER
Division Director

This report is transmitted in accordance with Section 3-14 of the Illinois State Auditing Act.

FRANK J. MAUTINO
Auditor General

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TABLE OF CONTENTS

APPENDICES

2020 Annual Review

Information Submitted by the Retirement Plan for CTA Employees

The Illinois State Auditing Act (30 ILCS 5/3-2.3(e)), as amended by Public Act 95-708, requires the Auditor General to review certain documents submitted by the Board of Trustees of the Retirement Plan for Chicago Transit Authority Employees (Retirement Plan or Plan). In addition, the Illinois Pension Code (40 ILCS 5/22-101(e)(3)) requires:

- The Retirement Plan to determine, based on a report prepared by an enrolled actuary, the estimated funded ratio of the Retirement Plan's total assets to its total actuarially determined liabilities.
- The Retirement Plan to determine the employee and employer contribution rates needed to meet funding requirements established by the Pension Code.
- The Auditor General to review the determination and the assumptions on which it is based and determine whether they are "unreasonable in the aggregate".

REPORT CONCLUSIONS

The Retirement Plan is required to submit to the Auditor General an audit, an annual statement, and an actuarial statement by September 30 of each year. On September 30, 2020, the Auditor General received these documents from the Retirement Plan. The Auditor General reviewed these documents and concluded that the documents complied with the requirements established in the Auditing Act.

The Retirement Plan submitted its January 1, 2020 Actuarial Valuation to the Auditor General on September 30, 2020. This Actuarial Valuation was presented to the Retirement Plan Board at its July 23, 2020 meeting. At that meeting, the Board of Trustees accepted the January 1, 2020 Actuarial Valuation and certified the employer and employee contribution rates for 2021.

The Office of the Auditor General and our consultant, Aon, reviewed the Retirement Plan's assumptions contained in the January 1, 2020 Actuarial Valuation and concluded that they were not unreasonable in the aggregate. The investment return assumption continues to be higher than most public plans but is supported by an investment return analysis conducted by the Plan's investment advisor and a high underlying inflation assumption. The underlying inflation assumption is on the upper end of the reasonable range based on current and recent historical capital market assumptions.

> The Retirement Plan failed to annually review the investment return and inflation assumptions as recommended. Failure to monitor and justify these two critical assumptions increases the likelihood that the assumptions may fall outside of what we consider reasonable.

While we recognize the Plan's policy of completing an experience study every five years, we believe that **these two**

assumptions, investment return and inflation, should be monitored and justified on an annual basis. We have consistently made this recommendation for a number of years. However, **the Retirement Plan failed to annually review** either of these two assumptions as recommended. If the Retirement Plan again fails to monitor and justify these two critical assumptions prior to next year's valuation, the likelihood increases that these assumptions may fall outside of what we consider reasonable.

In 2019, the Plan's actuary completed an experience study for the five year period ending December 31, 2017. An experience study assesses how well assumptions used by the Plan align with the actual experience of the Plan. If past experience differs from the assumptions used, then the actuary may recommend revisions to the assumptions used in future valuations. As a result of the experience study, several of the assumptions used in the Plan's January 1, 2019 Actuarial Valuation were revised. However, the investment return assumption remained unchanged at 8.25 percent. In the Plan's January 1, 2020 Actuarial Valuation, there were no changes in actuarial assumptions compared to the prior year.

Our prior reviews have concluded that the investment return assumption used by the Plan was at the upper range of investment return assumptions for comparable plans. The 8.25 percent investment return assumption is at the upper edge of reasonable based on the Plan's asset allocation and remains at the upper end of investment return assumptions used by other plans. The Plan's December 31, 2019 Investment Report shows that the Plan's investments have earned 7.7 percent over the past 10 years. The Plan's investment advisor conducted projections that found an expected 10-year return of 8.18 percent. We recommend that the investment return and inflation assumptions should be monitored and justified on an annual basis.

Key Retirement Plan Information	
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The Pension Code requires the Chicago Transit Authority (CTA) to contribute 12 percent of pay, less up to a 6 percent credit for debt service paid on the bonds issued for contribution to the Retirement Plan; employees are required to pay 6 percent of pay. The Pension Code further requires that contribution rates be increased if the funded ratio is projected to decline below 60 percent prior to 2040, with the CTA paying two-thirds and employees paying one-third of the required contribution.

The funded ratio of the Retirement Plan decreased slightly from 52.62 percent in the January 1, 2019 Valuation to 52.55 percent in the January 1, 2020 Valuation. At January 1, 2020, the Plan's assets totaled $1.883 billion and the actuarial accrued liability was $3.584 billion, according to the Plan's January 1, 2020 Actuarial Valuation.

Since the funded ratio of the Plan was below 60 percent in the January 1, 2020 Valuation, the Pension Code requires the Plan to "*…determine the increased contribution required each year as a level percentage of payroll during the years after the then current year…so the funded ratio is projected to reach at least 60% no later than 10 years after the then current year and include that determination in its report.*" (40 ILCS 5/22-101(e)(3)) The contribution rates certified by the Retirement Plan Board for 2021 were unchanged from the 2020 contribution rates. For both 2020 and 2021, the employer contribution rate is 20.647 percent (which is net of the employer debt service credit of 6% of pay) and the employee contribution rate is 13.324 percent.

The January 1, 2020 Actuarial Valuation concluded that the contribution rates applicable for Plan year 2021 would result in the Plan's funded ratio reaching the statutorily required 60 percent level within 10 years (i.e., by 2030) and therefore, there was no need to increase the contribution rates.

BACKGROUND

The Retirement Plan for CTA Employees was significantly underfunded, with a funded ratio of 34 percent as of January 1, 2006. In addition, the Plan was responsible for administering the retirement benefits and paying for the retiree health care benefits. Public Act 94-839 required the CTA to separate the funding for retiree health care benefits from the funding of the retirement system by January 1, 2009.

Public Act 95-708 made sweeping changes to the Retirement Plan for CTA Employees. Public Act 95-708 gave the CTA the authority to issue bonds to help fund both the retirement and retiree health care plans. Public Act 95-708 also established the Retiree Health Care Trust to administer and subsidize the retiree health care benefits. The Retiree Health Care Trust was established in May 2008.

The legislation also required that the contributions from the CTA and employees must be at a level so that the funded ratio of the Retirement Plan does not decline below 60 percent in any year before 2040, and achieves 90 percent funding by the end of 2059. If the Plan's funded ratio declines below 60 percent, the Pension Code requires the Board to "*… determine the increased contribution required each year as a level percentage of payroll during the years after the then current year … so the funded ratio is projected to reach at least 60% no later than 10 years after the then current year and include that determination in its report.*" (40 ILCS 5/22-101(e)(3)) It also stipulates that employees are required to pay one-third of the annual required contribution and the CTA is required to pay two-thirds of the required contribution. During the time period 2009 through 2040, the amount paid by the CTA with respect to debt service on bonds issued for contribution to the Retirement Plan shall be treated as a credit against the amount of required contribution, up to an amount not to exceed six percent of the compensation paid by the CTA in the following year.

REVIEW OF RETIREMENT PLAN SUBMISSIONS

The Illinois State Auditing Act (30 ILCS 5/3-2.3(e)) requires the Retirement Plan to submit certain specific documents to the Auditor General by September 30 of each year:

1. **Audit.** The most recent audit or examination of the Retirement Plan;

2. **Annual Statement.** An annual statement containing the information specified in Section 1A-109 of the Illinois Pension Code (see inset); and

3. **Actuarial Statement.** A complete actuarial statement applicable to the prior plan year, which may be the annual report of an enrolled actuary retained by the Retirement Plan specified in Section 22-101(e) of the Illinois Pension Code.

Illinois Pension Code Requirements

The Auditing Act requires the CTA Retirement Plan to annually file with the Auditor General the following information specified in Section 1A-109 of the Pension Code:

(1) a financial balance sheet as of the close of the fiscal year;
(2) a statement of income and expenditures;
(3) an actuarial balance sheet;
(4) statistical data reflecting age, service, and salary characteristics concerning all participants;
(5) special facts concerning disability or other claims;
(6) details on investment transactions that occurred during the fiscal year covered by the report;
(7) details on administrative expenses; and
(8) such other supporting data and schedules as in the judgement of the Division may be necessary for a proper appraisal of the financial condition of the pension fund and the results of its operations. The annual statement shall also specify the actuarial and interest tables used in the operation of the pension fund.

Source: Pension Code (40 ILCS 5/1A-109) and Auditing Act (30 ILCS 5/3-2.3(e))

On September 30, 2020, the Auditor General received the three documents listed below from the Retirement Plan. We reviewed the documents and concluded the information required by Section 5/3-2.3(e) of the Auditing Act was contained in these reports:

- Audited Financial Statements for the Retirement Plan for the year ended December 31, 2019;

- An Investment Report dated December 31, 2019; and

- The January 1, 2020 Actuarial Valuation for the Retirement Plan.

REVIEW OF ACTUARIAL DETERMINATION AND ASSUMPTIONS

The Illinois Pension Code (40 ILCS 5/22-101(e)(3)) places an additional reporting requirement on the Auditor General. The Code requires that the Retirement Plan:

> By September 15 of each year beginning in 2009 and ending on December 31, 2039, on the basis of a report prepared by an enrolled actuary retained by the Plan, the Board of Trustees of the Retirement Plan shall determine the estimated funded ratio of the total assets of the Retirement Plan to its total actuarially determined liabilities. A report containing that determination and the actuarial assumptions on which it is based shall be filed with the … Auditor General ….

The Pension Code requires the Auditor General to review the determination and the assumptions on which it is based to determine whether they are unreasonable in the aggregate.

The January 1, 2020 Actuarial Valuation was presented to the Retirement Plan Board at its July 23, 2020 meeting. At that meeting, the Board of Trustees accepted the January 1, 2020 Actuarial Valuation and certified the employer and employee contribution rates for 2021. The 2021 rates were unchanged from the 2020 contribution rates. In 2020, the employer contribution rate was 20.647 percent (which is net of the employer debt service credit of 6% of pay) and the employee contribution rate was 13.324 percent. The January 1, 2020 Actuarial Valuation concluded that the contribution rates applicable for Plan year 2021 would result in the Plan's funded ratio reaching the statutorily required 60 percent level within 10 years (i.e., by 2030) and therefore, there was no need to increase the contribution rates.

Contribution Rates		
	Authority	**Employees**
2021 rate	20.647%	13.324%

REVIEW OF ACTUARIAL ASSUMPTIONS USED

Actuarial Standard of Practice No. 27 (ASOP No. 27) provides guidance on the selection of economic assumptions for measuring pension obligations and dictates that "*each economic assumption selected by the actuary should be reasonable*" and should have "*no significant bias*." It does recognize that "*different actuaries will apply different professional judgment and may choose different reasonable assumptions. As a result, a range of reasonable assumptions may develop…across actuarial practice.*"

In 2019, the Plan's actuary completed an experience study evaluating the demographic and economic assumptions of the Plan. An experience study assesses how well assumptions used by the Plan align with the actual experience of the Plan. If past experience differs from the assumptions used, then the actuary may recommend revisions to the assumptions used in future valuations. The study examined five years of Plan history, from January 1, 2013 to December 31, 2017. Several of the assumptions used in the Plan's January 1, 2019 Actuarial Valuation were revised based on the results of the experience study. However, the investment return assumption was unchanged and remained at 8.25 percent. In the Plan's January 1, 2020 Actuarial Valuation, there were no changes in actuarial assumptions compared to the prior year.

Our consultant, Aon, reviewed the assumptions used in the Retirement Plan's January 1, 2020 Actuarial Valuation and found that the assumptions used were not unreasonable in the aggregate. While the assumptions used in the January 1, 2020 Actuarial Valuation were not unreasonable in the aggregate, two assumptions – the investment return assumption and the inflation assumption – should be monitored and justified on an annual basis.

Investment Return Assumption

Our prior reviews have concluded that the investment return assumptions used by the Plan were at the upper range of investment return assumptions for comparable plans.

- In our 2009 and 2010 Annual Reviews, we noted that the Retirement Plan's investment return assumption of 8.75 percent, while selected using established standards for pension plans, was an optimistic assumption. In the January 1, 2011 Actuarial Valuation, the Board's actuary recommended, and the Board approved, a reduction in the investment return assumption to 8.50 percent.

- In the January 1, 2014 Valuation, the investment return assumption was reduced from 8.50 percent to 8.25 percent. As part of the experience study performed for the January 1, 2014 Valuation, the Plan's actuary examined the reasonableness of the 8.50 percent investment return assumption and recommended that the Board adopt the 8.25 percent investment return assumption.

The assumption was reviewed as part of the 2019 experience study. In the experience study, the Plan's actuary recommended keeping the investment return assumption at 8.25 percent rate and stated that maintaining the 8.25 percent return assumption was supportable. However, the Plan's actuary also noted that a lower assumed rate of return should be considered by the Board and alternative scenarios of 8.00 percent and 7.50 percent were presented in the experience study. The Board voted to accept the actuarial valuation report, therefore adopting all of the assumptions including the unchanged 8.25 percent investment return assumption.

In the January 1, 2020 Actuarial Valuation prepared by the Plan's actuary, the investment return assumption used is 8.25 percent net of expenses. After adjusting for 17 basis points of expected administrative expenses that are not accounted elsewhere in the valuation, the gross return being assumed is 8.42 percent. This assumption is unchanged from the previous valuation and is based on the updated target asset allocation for the Plan's investments as of December 2019. The Plan's actuary did not prepare a current analysis of this assumption based on the allocation. **We recommend the Plan's actuary monitor this assumption and its reasonableness annually.** The Plan's investment advisor prepared an analysis and found an expected 10-year return of 8.18 percent. Our consultant, Aon, noted the following:

- The highest investment return assumption found in the 2018 Public Funds Survey is 8.25 percent. Specifically, the *Public Funds Survey Summary of Findings for FY 2018* highlights the fact that "*Following the sharp decline in global capital markets in 2008-09 and the subsequent decline in interest rates and projected returns on most major asset classes, nearly every plan in the survey has reduced its assumed investment return. This has resulted in a reduction in the median return assumption to 7.25 percent.*"

- Only 1 plan out of the 199 plans found in the most recent Public Plans Data used an investment return assumption of 8.25% or greater (0.5% of plans). The data from this plan is from 2018, so this group may have diminished further since then.

- Actuarial Standard of Practice No. 27 provides guidance on the selection of economic assumptions for measuring pension obligations and dictates that "*each economic assumption selected by the actuary should be reasonable*," and should have "*no significant bias*." It does recognize that "*different actuaries will apply different professional judgment and may choose different reasonable assumptions. As a result, a range of reasonable assumptions may develop… across actuarial practice.*"

Comparison with Rates of Returns for Other Pension Plans

An investment return assumption of 8.25 percent is at the upper range of investment return assumptions for comparable plans. The Public Fund Survey is an online compendium of key characteristics of most of the nation's largest public retirement systems. The Survey is sponsored by the National Association of State Retirement Administrators. The *Public Fund Survey Summary of Findings for FY 2018*, which surveyed 120 public pension plans with combined assets of $3.62 trillion, found a median investment return assumption of 7.25 percent. In the Public Fund Survey's online data, pulled as of October 19, 2020, only one plan used an investment return assumption of 8.25 percent or higher. Therefore, the Plan's investment assumption of 8.25 percent falls within the range of Public Fund Survey data due to solely one other plan with a return assumption greater than 8.0 percent.

Wilshire Consulting's *2019 Report on State Retirement Systems: Funding Levels and Asset Allocation* examined the asset allocation and funding levels for 134 state retirement systems, 106 of which reported actuarial values on or after June 30, 2018. Wilshire estimated that the average state pension fund has an expected return of 7.10 percent. This expected return is lower than the current median actuarial interest rate assumption of 7.25 percent used by the plans in the Wilshire report and is lower than the 8.25 percent assumption selected for the CTA Retirement Plan.

Wilshire Consulting's *2019 Report on City & County Retirement Systems: Funding Levels and Asset Allocation* examined the asset allocation and funding levels for 107 city and county retirement systems, 105 of which reported actuarial values on or after June 30, 2018. Wilshire estimated that the average city and county pension fund has an expected return of 6.5 percent. This expected return is lower than the current median actuarial interest rate assumption of 7.25 percent used by the plans in the Wilshire report and is lower than the 8.25 percent assumption selected for the CTA Retirement Plan.

The National Conference on Public Employee Retirement Systems and Cobalt Community Research released the *2019 NCPERS Public Retirement Systems Study* in January 2020. NCPERS is a trade association for public sector pension funds, representing more than 500 funds in the United States and Canada. The 2019 study includes responses from 155 state and local government pension funds with assets exceeding $1.4 trillion. According to the Study, the average investment return assumption for responding funds was 7.24 percent compared with 7.34 percent in 2018. The study also stated "*About 82 percent of all responding funds are considering lowering or have lowered their assumed rate of return….*"

Aon Analysis

Using Aon's Expected Return Tool (as of the 1st Quarter of 2020) and the target asset allocation, Aon determined that the 35th to 65th percentile range of the CTA Retirement Plan's investment returns to be 8.28 percent to 6.38 percent, with the 50th percentile rate equal to 7.32 percent. The Retirement Plan's investment return assumption of 8.25 percent represented the 35.4 percentile in Aon's tool, assuming that 8.25 percent is net of administrative expenses, as indicated by the Plan's actuary. The Retirement Plan's gross investment return assumption of 8.44 percent represents the 32.6 percentile.

The underlying inflation assumption used in Aon's Expected Return Tool is 2.20 percent, compared to the Plan's assumption of 3.10 percent. If the results of the tool were adjusted for this difference in the inflation assumption, the resulting 35th to 65th percentile range would be 9.18 percent to 7.28 percent with the 50th percentile rate equal to 8.22 percent. The Retirement Plan's investment return assumption of 8.25 percent would then represent the 49.6 percentile in Aon's tool, assuming that 8.25 percent is net of administrative expenses. The Retirement Plan's gross investment return assumption of 8.44 percent represents the 46.5 percentile when adjusted to use the inflation assumption of 3.10 percent. The Aon Expected Return Tool calculates the expected portfolio growth rate (50th percentile, geometric return) before any value is added from active management. The Plan's current investment return assumption exceeds the 35th percentile return based on Aon's capital market assumptions. Given the Plan's underlying inflation assumption and assumption support provided by the Plan's investment advisor, the 8.44 percent gross investment return assumption remains at the upper end of the reasonable range.

Aon's best estimate of future inflation over the next 30 years (as of the 1st Quarter of 2020) is 2.20 percent. The Retirement Plan's inflation assumption of 3.10 percent is 90 basis points higher. **We recommend the Plan's actuary monitor this assumption and its reasonableness annually.** The CTA did not provide updated support for this assumption but it was supported as part of the experience study with a 30-year GEMS estimate of the U.S. consumer price inflation which trends towards historical averages, reflecting inflation and interest rate environments different than those currently observed. Aon recognizes there is a wide range of expectations concerning long-term inflation, but would still consider the Plan's current assumption on the upper end of what is reasonable based on recent history and current capital market assumptions.

Historical Rates of Return Experienced by the Plan's Investments

Over the past 10 years, the rate of return on Retirement Plan investments has been lower than its current 8.25 percent assumed rate of return. For the 10-year period ending December 31, 2019, the Plan's return on investments was 7.7 percent, according to the Plan's December 31, 2019 Investment Report. As noted earlier, the Plan's investment advisor projected a total expected return of 8.18 percent over a 10-year term for the Plan's investments.

Conclusion: Investment Return Assumption

The 8.25 percent rate of return assumption is at the upper edge of reasonable based on the Plan's asset allocation and is at the upper end of investment return assumptions used by other retirement plans in the United States. The 10-year historical rate of return of 7.7 percent experienced by the Retirement Plan on its investments is less than its 8.25 percent investment return assumption. The Retirement Plan's inflation assumption of 3.10 percent is 90 basis points higher than Aon's best estimate of future inflation over the next 30 years of 2.20 percent. **We recommend that the investment return and inflation assumptions should be monitored and justified on an annual basis.** We have consistently made this recommendation for a number of years. However, **the Retirement Plan failed to review either of these two assumptions** as recommended. If the Retirement Plan again fails to monitor and justify these two critical assumptions prior to next year's valuation, the likelihood increases that these assumptions may fall outside of what we consider reasonable.

Active Participant Assumption

The Retirement Plan's active participant headcount decreased from the prior year. Additionally, the ratio of active participants to annuitants continued to decrease. The *Public Fund Survey Summary of Findings for FY 2018* states "*When combined with an unfunded liability, however, a low or declining ratio of actives to annuitants can cause fiscal distress for a pension plan sponsor…A lower ratio of actives to annuitants results in the spreading of costs to amortize a plan's unfunded liability over a relatively smaller payroll base, which increases the cost of the plan as a percentage of employee payroll.*" The Summary goes on to state "*A growing number of annuitants, combined with a slow or declining growth in active members, will result in a reduction in a retirement system's external cash flow.*"

In the January 1, 2020 Actuarial Valuation, the Retirement Plan's actuary has assumed a steady future level of active members through the projection period of 2050. To the extent future participation differs from this assumption, the future contribution levels will be impacted. The active population has been steadily decreasing. The headcount decreased from 8,204 in the 2016 Actuarial Valuation to 8,057 in the most recent 2020 Actuarial Valuation. The active to annuitant ratio has declined from 0.81 in the 2016 Valuation to 0.75 in the 2020 Valuation.

The Plan's active to annuitant ratio of 0.75 is significantly lower than the average result from the Public Fund Survey of 1.35, and indicates the importance of this ratio to the Plan's finances. The Plan's actuary has confirmed the reasonableness of the level headcount assumption with the CTA.

Funded Ratio

The funded ratio of the Retirement Plan as of January 1, 2020, was 52.55 percent, which is a slight decrease from the funded ratio of 52.62 percent in the January 1, 2019 Actuarial Valuation. At January 1, 2020, the actuarial value of assets was reported at $1.883 billion and the actuarial accrued liability was $3.584 billion.

The Illinois Pension Code (40 ILCS 5/22-101(e)(3)) contains specific requirements regarding the funded ratio of the CTA Retirement Plan. The Code states that:

> (3) "…If the actual funded ratio declines below 60% in any year prior to 2040, the Board of Trustees shall also determine the increased contribution required each year as a level percentage of payroll during the years after the then current year using the projected unit

credit actuarial cost method so the funded ratio is projected to reach at least 60% no later than 10 years after the then current year and include that determination in its report ….”

The Pension Code requires the CTA to contribute 12 percent of pay, less up to a 6 percent credit for debt service paid on the bonds used to fund the Plan; employees are required to pay 6 percent of pay. If the funded ratio is projected to decline below 60 percent prior to 2040, the Pension Code requires the CTA to pay two-thirds and employees to pay one-third of the required contribution.

The funded ratio of the Plan remained under 60 percent in the January 1, 2020 Actuarial Valuation. However, the Plan's actuary determined that there was not a need to increase contribution rates. For 2020, the employer contribution rate was 20.647 percent (which is net of the employer debt service credit of 6% of pay) and the employee contribution rate was 13.324 percent. These rates continue to result in the Plan's funded ratio reaching the statutorily required 60 percent level within 10 years of 2020 (i.e., by 2030).

Projected Funded Status – Based on Current Contribution Rates

Year	Projected Funded Ratio
2020	52.55%
2021	53.51%
2022	54.55%
2023	55.09%
2024	56.81%
2025	57.97%
2026	59.25%
2027	60.68%
2028	62.29%
2029	64.09%
2030	66.12%
2031	68.44%
2032	71.08%
2033	74.09%
2034	77.48%
2035	81.29%
2036	85.54%
2037	90.24%
2038	95.40%
2039	101.02%
2040	107.08%

Source: January 1, 2020 Actuarial Valuation Report.

The January 1, 2020 Actuarial Valuation notes that differences between the expected experience based on the actuarial assumptions and the actual experience create changes in the actuarial accrued liability, the actuarial value of assets, and the unfunded actuarial accrued liability from one year to the next. These changes create an actuarial gain if the experience is favorable and an actuarial loss if the experience is unfavorable. The Plan experienced a total net actuarial loss of $49.9 million during 2019. The Valuation notes that this net loss is a combination of two principal factors: demographic experience and investment performance.

The January 1, 2020 Actuarial Valuation discloses that the Plan's demographic assumptions (such as mortality, turnover, retirement, pay increases, etc.) experienced a loss of $37.6 million during 2019. The rate of return on the actuarial value of Plan assets was 7.57 percent for the year ending December 31, 2019, compared to the rate of return assumption of 8.25 percent. The lower than assumed rate of return in 2019 resulted in a loss of $12.3 million.

The January 1, 2020 Actuarial Valuation projects the funded ratio of the Plan to be 101.02 percent in year 2039. This is an increase from last year's projected funded ratio in year 2039 of 96.02 percent.

Funding Policy

Although not required by law, the Plan's actuary recommended in the January 1, 2020 Valuation, and past valuations, that the Board of Trustees consider moving towards contributing based on a more actuarially sound funding policy which they refer to as the "Actuarial Math Funding Policy". This would include: 1) funding 100 percent of the entry age normal cost method; and 2) pay off the unfunded liability over a period of 20 years and as a level percentage of payroll. The Valuation notes that complying with this methodology would result in a total contribution of 34.11 percent which is similar to the current contribution total of 33.971 percent [20.647% paid by the CTA (net of the 6% credit for bond repayment) and 13.324% paid by employees].

SCOPE OF ANNUAL REVIEW

The Office of the Auditor General conducted an annual review of information submitted by the Retirement Plan pursuant to the Illinois State Auditing Act and the Illinois Pension Code. This report does not constitute an audit as that term is defined in generally accepted government auditing standards. Consequently, while we reviewed the information provided by the CTA Retirement Plan for reasonableness and consistency, we did not conduct an audit of the accuracy of the information provided as that is the responsibility of the Plan.

The scope of our work included reviewing the information submitted by the Retirement Board on September 30, 2020. This information included: the Audited Financial Statements for the Plan for the year ended December 31, 2019; an Investment Report for the period ending December 31, 2019; and the January 1, 2020 Actuarial Valuation for the Retirement Plan. We conducted follow-up with the Retirement Plan on various questions we had based upon our review of these documents. The Retirement Plan was provided a draft of this report for its review.

Our consultant, Aon, reviewed the reasonableness of the actuarial assumptions used by the CTA Retirement Plan in their January 1, 2020 Actuarial Valuation.

In prior years, we reported that the Plan's Executive Director noted that the Williams case (Williams v. Retirement Plan for CTA Employees, CTA Retiree Health Care Trust, et al., No. 11 CH 15446 (Circuit Court of Cook County, Illinois)) could have a significant impact on either the Retirement Plan or the Retiree Health Care Trust in the magnitude of $100 million or more. The plaintiffs were current and former employees of the CTA who argued that after years of fully paid health care benefits for retired CTA employees, they were being asked to pay for a portion of their health care benefits and were no longer entitled to the same level of health care coverage as active CTA employees. The changes to their coverage occurred as a result of an arbitration award and related amendments to the Pension Code made by Public Act 95-708. On October 23, 2020, the Executive Director provided an update on the status of the case.

> In April 2011, several CTA employees and retirees brought a purported class action against the CTA, the Retirement Plan, the Retiree Health Care Trust, and their respective boards of trustees challenging the requirement that retirees contribute to the cost of the their health care benefits after July 1, 2009. The case was initially dismissed in its entirety and the ruling was appealed. In May 2016, the Illinois Supreme Court affirmed the dismissal of the claims against the CTA and affirmed the dismissal of the claims of the active CTA employees and recent retirees. The Court reversed the dismissal of the claims brought on behalf of CTA employees who retired prior to January 1, 2007. The case returned to the trial court. On July 7, 2020, the trial court ruled that the action could

proceed as a class action on behalf of all CTA retirees who were hired on or before September 5, 2001, retired from the CTA before January 1, 2007, and were eligible for retiree health benefits on July 1, 2009. The class contains 6,369 members. The claims certified for class treatment include Plaintiffs' claims that the defendants breached the Retirement Plan Agreement and violated the pension protection clause of the Illinois Constitution by charging retirees for health care coverage beginning in July 1, 2009 and deducting those amounts from their monthly pension benefits. The Retirement Plan and the Retiree Health Care Trust deny that they breached the contract or violated the pension protection clause. The Court has not ruled on the validity of the claims or the validity of the defenses.

The Auditor General performed this Review with assistance from our consultant, Aon. Aon's review concluded that:

(A) The required documents have been submitted and meet the statutory requirements of Section 5/3-2.3(e)(1), (2), and (3) of the Auditing Act.

(B) The assumptions stated in the actuarial report submitted pursuant to 40 ILCS 5/22-101(e)(3) are not unreasonable in the aggregate. The investment return assumption continues to be higher than most public plans but is supported by an investment return analysis conducted by the Plan investment advisor and a high underlying inflation assumption. The underlying inflation assumption is on the upper end of the reasonable range based on current and recent historical capital market assumptions. While we recognize the plan's policy of completing an experience study every five years, we believe that two of the assumptions, investment return and inflation, should be monitored and justified on an annual basis.

(C) The Pension Code (40 ILCS 5/22-101(e)(3)) indicates that if the plan's funded ratio is projected to fall below 60 percent in any year before 2040, minimum contribution rates are to be determined on a level percentage of payroll basis over the years remaining until 2040 that keep the projected funded ratio above 60 percent in all years through 2039, based on assumptions which are not unreasonable in the aggregate. The Pension Code also indicates that if the actual funded ratio declines below 60 percent in any year prior to 2040, the actuarial report shall also show an increased contribution rate that is determined on a level percentage of payroll basis during the years after the current year such that the funded ratio is projected to reach at least 60 percent no later than 10 years after the then current year. The funded ratio remained below 60 percent for the January 1, 2020 valuation. The contribution rates of 13.324 percent for employees and 20.647 percent for the employer (with the 6 percent credit for debt service) are unchanged from 2019 for 2020 and are sufficient to bring the funded status to 60 percent (or higher) by 2030 (i.e., 10 years after the current year). The contribution rates of 13.324 percent for employees and 20.647 percent for the employer (with the 6 percent credit for debt service) are the Statutory Minimum Contribution Rates.

APPENDIX A

STATUTORY AUTHORITY

ILLINOIS STATE AUDITING ACT

30 ILCS 5/3-2.3(e) and (f)

(e) Annual Retirement Plan Submission to Auditor General. The Board of Trustees of the Retirement Plan for Chicago Transit Authority Employees established by Section 22-101 of the Illinois Pension Code shall provide the following documents to the Auditor General annually no later than September 30:

(1) the most recent audit or examination of the Retirement Plan;

(2) an annual statement containing the information specified in Section 1A-109 of the Illinois Pension Code; and

(3) a complete actuarial statement applicable to the prior plan year, which may be the annual report of an enrolled actuary retained by the Retirement Plan specified in Section 22-101(e) of the Illinois Pension Code.

The Auditor General shall annually examine the information provided pursuant to this subsection and shall submit a report of the analysis thereof to the General Assembly, including the report specified in Section 22-101(e) of the Illinois Pension Code.

(f) The Auditor General shall annually examine the information submitted pursuant to Section 22-101B(b)(3)(iii) of the Illinois Pension Code and shall prepare the determination specified in Section 22-101B(b)(3)(iv) of the Illinois Pension Code.

(Source: P.A. 95-708, eff. 1-18-08.)

ILLINOIS PENSION CODE

40 ILCS 5/1A-109

Annual statements by pension funds. Each pension fund shall furnish to the Division an annual statement in a format prepared by the Division.

The Division shall design the form and prescribe the content of the annual statement and, at least 60 days prior to the filing date, shall furnish the form to each pension fund for completion. The annual statement shall be prepared by each fund, properly certified by its officers, and submitted to the Division within 6 months following the close of the fiscal year of the pension fund.

The annual statement shall include, but need not be limited to, the following:

(1) a financial balance sheet as of the close of the fiscal year;

(2) a statement of income and expenditures;

(3) an actuarial balance sheet;

(4) statistical data reflecting age, service, and salary characteristics concerning all participants;

(5) special facts concerning disability or other claims;

(6) details on investment transactions that occurred during the fiscal year covered by the report;

(7) details on administrative expenses; and

(8) such other supporting data and schedules as in the judgement of the Division may be necessary for a proper appraisal of the financial condition of the pension fund and the results of its operations. The annual statement shall also specify the actuarial and interest tables used in the operation of the pension fund.

For pension funds under Article 3 or 4 of this Code, after the conclusion of the transition period, the Consolidated Fund shall furnish directly to the Division the information described in items (1) and (6) of this Section and shall otherwise cooperate with the pension fund in the preparation of the annual statement.

A pension fund that fails to file its annual statement within the time prescribed under this Section is subject to the penalty provisions of Section 1A-113.

(Source: P.A. 101-610, eff. 1-1-20.)

40 ILCS 5/22-101

Sec. 22-101(e). Retirement Plan for Chicago Transit Authority Employees.

(1) Beginning January 1, 2009 the Authority shall make contributions to the Retirement Plan in an amount equal to twelve percent (12%) of compensation and participating employees shall make contributions to the Retirement Plan in an amount equal to six percent (6%) of compensation. These contributions may be paid by the Authority and participating employees on a payroll or other periodic basis, but shall in any case be paid to the Retirement Plan at least monthly.

(2) For the period ending December 31, 2040, the amount paid by the Authority in any year with respect to debt service on bonds issued for the purposes of funding a contribution to the Retirement Plan under Section 12c of the Metropolitan Transit Authority Act, other than debt service paid with the proceeds of bonds or notes issued by the Authority for any year after calendar year 2008, shall be treated as a credit against the amount of required contribution to the Retirement Plan by the Authority under subsection (e)(1) for the following year up to an amount not to exceed 6% of compensation paid by the Authority in that following year.

(3) By September 15 of each year beginning in 2009 and ending on December 31, 2039, on the basis of a report prepared by an enrolled actuary retained by the Plan, the Board of Trustees of the Retirement Plan shall determine the estimated funded ratio of the total assets of the Retirement Plan to its total actuarially determined liabilities. A report containing that determination and the actuarial assumptions on which it is based shall be filed with the Authority, the representatives of its participating employees, the Auditor General of the State of Illinois, and the Regional Transportation Authority. If the funded ratio is projected to decline below 60% in any year before 2040, the Board of Trustees shall also determine the increased contribution required each year as a level percentage of payroll over the years remaining until 2040 using the projected unit credit actuarial cost method so the funded ratio does not decline below 60% and include that determination in its report. If the actual funded ratio declines below 60% in any year prior to 2040, the Board of Trustees shall also determine the increased contribution required each year as a level percentage of payroll during the years after the then current year using the projected unit credit actuarial cost method so the funded ratio is projected to reach at least 60% no later than 10 years after the then current year and include that determination in its report. Within 60 days after receiving the report, the Auditor General shall review the determination and the assumptions on which it is based, and if he finds that the determination and the assumptions on which it is based are unreasonable in the aggregate, he shall issue a new determination of the funded ratio, the assumptions on which it is based and the increased contribution required each year as a level percentage of payroll over the years remaining until 2040 using the projected unit credit actuarial cost method so the funded ratio does not decline below 60%, or, in the event of an actual decline below 60%, so the funded ratio is projected to reach 60% by no later than 10 years after the then current year. If the Board of Trustees or the Auditor General determine that an increased contribution is required to meet the funded ratio required by the subsection, effective January 1 following the determination or 30 days after such determination, whichever is later, one-third of the increased contribution shall be paid by participating

employees and two-thirds by the Authority, in addition to the contributions required by this subsection (1).

(4) For the period beginning 2040, the minimum contribution to the Retirement Plan for each fiscal year shall be an amount determined by the Board of Trustees of the Retirement Plan to be sufficient to bring the total assets of the Retirement Plan up to 90% of its total actuarial liabilities by the end of 2059. Participating employees shall be responsible for one-third of the required contribution and the Authority shall be responsible for two-thirds of the required contribution. In making these determinations, the Board of Trustees shall calculate the required contribution each year as a level percentage of payroll over the years remaining to and including fiscal year 2059 using the projected unit credit actuarial cost method. A report containing that determination and the actuarial assumptions on which it is based shall be filed by September 15 of each year with the Authority, the representatives of its participating employees, the Auditor General of the State of Illinois and the Regional Transportation Authority. If the funded ratio is projected to fail to reach 90% by December 31, 2059, the Board of Trustees shall also determine the increased contribution required each year as a level percentage of payroll over the years remaining until December 31, 2059 using the projected unit credit actuarial cost method so the funded ratio will meet 90% by December 31, 2059 and include that determination in its report. Within 60 days after receiving the report, the Auditor General shall review the determination and the assumptions on which it is based and if he finds that the determination and the assumptions on which it is based are unreasonable in the aggregate, he shall issue a new determination of the funded ratio, the assumptions on which it is based and the increased contribution required each year as a level percentage of payroll over the years remaining until December 31, 2059 using the projected unit credit actuarial cost method so the funded ratio reaches no less than 90% by December 31, 2059. If the Board of Trustees or the Auditor General determine that an increased contribution is required to meet the funded ratio required by this subsection, effective January 1 following the determination or 30 days after such determination, whichever is later, one-third of the increased contribution shall be paid by participating employees and two-thirds by the Authority, in addition to the contributions required by subsection (e)(1).

(5) Beginning in 2060, the minimum contribution for each year shall be the amount needed to maintain the total assets of the Retirement Plan at 90% of the total actuarial liabilities of the Plan, and the contribution shall be funded two-thirds by the Authority and one-third by the participating employees in accordance with this subsection.

(Source: P.A. 97-442, eff. 8-19-11; P.A. 97-609, eff. 1-1-12; P.A. 97-813, eff. 7-13-12.)

Recycled Paper • Soybean Inks
Printed by Authority of the State of Illinois
LPU Order 00000 • November 2020 • 30 copies