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**STATE OF ILLINOIS**

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**OFFICE OF THE AUDITOR GENERAL**

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**2011 ANNUAL REVIEW**

**INFORMATION SUBMITTED BY THE  
RETIREMENT PLAN FOR  
CHICAGO TRANSIT AUTHORITY EMPLOYEES**

**NOVEMBER 2011**

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**WILLIAM G. HOLLAND**

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**AUDITOR GENERAL**

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OFFICE OF THE AUDITOR GENERAL  
WILLIAM G. HOLLAND

*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 2011 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.

A handwritten signature in blue ink, appearing to read "William G. Holland".

WILLIAM G. HOLLAND<sup>1</sup>  
Auditor General

Springfield, Illinois  
November 2011





STATE OF ILLINOIS  
**OFFICE OF THE  
AUDITOR GENERAL**

William G. Holland, Auditor General

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**SUMMARY REPORT DIGEST**

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**REVIEW OF INFORMATION SUBMITTED BY THE  
RETIREMENT PLAN FOR CHICAGO TRANSIT AUTHORITY EMPLOYEES**

**2011 ANNUAL REVIEW**

**Release Date: November 2011**

**SYNOPSIS**

The Illinois State Auditing Act requires the Retirement Plan for Chicago Transit Authority Employees (Retirement Plan) to submit its most recent audit, annual statement, and actuarial statement to the Office of the Auditor General (OAG) by September 30 of each year. These documents were submitted by the Retirement Plan on September 30, 2011. The OAG reviewed these documents and concluded that the Retirement Plan had complied with the requirements established in the Auditing Act.

The Illinois Pension Code (40 ILCS 5/22-101(e)(3)) requires the Retirement Plan determine, based on a report prepared by an enrolled actuary, the estimated funded ratio of the total assets of the Retirement Plan to its total actuarially determined liabilities. The Retirement Plan is also required to determine the contribution rates needed to meet the funding requirements established by the Pension Code. The Auditor General is then required to review the Retirement Plan's determination and assumptions to determine whether they are "*unreasonable in the aggregate*". This report does not constitute an audit as that term is defined in generally accepted government auditing standards.

- The OAG reviewed the Retirement Plan's assumptions in the January 1, 2011 Actuarial Valuation and concluded they were not unreasonable in the aggregate.
  - The Retirement Plan kept most of its assumptions unchanged from the prior year's Actuarial Valuation except that it reduced the investment rate of return assumption from 8.75 percent to 8.5 percent.
  - While this reduction improves its reasonableness, the 8.5 percent investment return assumption remains at the upper end of returns used by other pension plans.
- The Pension Code requires the Retirement Plan to set employee and employer contribution rates at levels so that the Plan's projected funded ratio does not decline below 60 percent in all years through 2039.
  - Based on the January 1, 2011 Actuarial Valuation, the Retirement Board increased the employee and employer contribution rates for 2012 to keep the Plan's funded ratio from declining below the statutorily required 60 percent level in all years through 2039.
  - The employee contribution rate will increase from 8.345 percent to 8.65 percent of pay and the employer contribution rate will increase from 10.69 percent to 11.3 percent of pay (the employer contribution rate is net of debt service credit of 6% of pay).



**ANNUAL REVIEW**  
**RESULTS AND CONCLUSIONS**

**STATUTORY REQUIREMENTS**

**OAG reviewed the documents submitted by the Retirement Plan and concluded the Retirement Plan had complied with 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) to submit an audit, annual statement, and actuarial statement to the Office of the Auditor General (OAG) by September 30 of each year.

- On September 30, 2011, the Retirement Plan submitted these documents to the Auditor General.
- The OAG reviewed these documents and concluded that the Retirement Plan had complied with the requirements established in the Auditing Act.

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

- The Retirement Plan is also required to determine the contribution rates needed to meet the funding requirements established by the Pension Code.
- The Auditor General is then required to review the determination and the assumptions to determine whether they are “*unreasonable in the aggregate*”. (pages 3-4)

**REVIEW OF ACTUARIAL VALUATION**

**While the reduction of the investment rate of return from 8.75% to 8.5% improves the reasonableness of this actuarial assumption, the 8.5% investment return assumption remains at the upper end of returns used by other pension plans.**

The Retirement Plan submitted the Actuarial Valuation as of January 1, 2011 to the OAG on September 30, 2011. This Actuarial Valuation was adopted by the Retirement Plan’s Board of Trustees (Board) at its September 22, 2011 meeting.

Most of the Valuation’s assumptions were the same as the prior year’s Valuation. However, the Board reduced the investment return assumption from 8.75 percent to 8.5 percent. While this reduction improves the reasonableness of the investment return assumption, the 8.5 percent investment return assumption remains at the upper end of returns used by other pension plans.

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

The OAG reviewed the Retirement Plan’s assumptions in the January 1, 2011 Actuarial Valuation and concluded they were not unreasonable in the aggregate. This report does not

constitute an audit as that term is defined in generally accepted government auditing standards. (pages 4-10)

As of January 1, 2011, the actuarial value of assets for pension benefits was approximately \$1.91 billion and the actuarial liability was \$2.72 billion, according to the Retirement Plan’s Actuarial Valuation.

**January 1, 2011:**

- **Assets . . . . . \$1.9 billion**
- **Liabilities . . . . . \$2.7 billion**
- **Funded Ratio . . . . . 70.1%**

- The funded ratio **decreased** from 74.8 percent as of January 1, 2010 to 70.1 percent as of January 1, 2011.
- The 2011 Valuation notes the decrease is due primarily to the amortization of deferred asset losses and the decrease in the investment return assumption from 8.75 percent to 8.5 percent. (page 10)

**CONTRIBUTION RATES**

**The Board increased employee contribution rates from 8.345% to 8.65% of pay and employer contribution rates from 10.69% to 11.3% of pay (the employer contribution rate is net of debt service credit of 6% of pay).**

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 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 one-third of the required contribution.

- Based on the January 1, 2011 Actuarial Valuation, the Retirement Plan increased the employer and employee contribution rates for 2012 to keep the Plan’s funded ratio from declining below the statutorily required 60 percent level in all years through 2039.
- The Board increased the employee contribution rate for 2012 from 8.345 percent to 8.65 percent of pay and the employer contribution rate from 10.69 percent to 11.3 percent of pay (the employer contribution rate is net of debt service credit of 6% of pay). (pages 4, 9-10)



WILLIAM G. HOLLAND  
Auditor General

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

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**2011 Annual Review**

# **Information Submitted by the Retirement Plan for CTA Employees**

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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). 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 then required to review the determination and the assumptions on which it is based and determine whether they are "unreasonable in the aggregate".

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## **REPORT CONCLUSIONS**

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The Auditing Act (30 ILCS 5/3-2.3(e)) requires the Retirement 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, 2011, the Retirement Plan submitted these documents to the OAG. The OAG reviewed these documents and concluded that the Retirement Plan had complied with the requirements established in 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 then 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".

The Retirement Plan submitted the Actuarial Valuation as of January 1, 2011, to the OAG on September 30, 2011. This Actuarial Valuation was presented to the Retirement Plan Board at its September 22, 2011 meeting. At that meeting, the Board of Trustees adopted the January 1, 2011 Actuarial Valuation and certified the employer and employee contribution rates for 2012.

The OAG and our consultants, Aon Hewitt, reviewed the Retirement Plan's assumptions contained in the January 1, 2011 Actuarial Valuation submitted on September 30 and concluded that they were not unreasonable in the aggregate. Most

assumptions remained unchanged from the prior year's Valuation. However, in the January 1, 2011 Actuarial Valuation, the Board's actuary recommended, and the Board approved, a reduction in the investment return assumption from 8.75 percent to 8.5 percent. Our 2010 Annual Review noted that the Retirement Plan's 8.75 percent investment return assumption, while selected using established standards for pension plans and not unreasonable in the aggregate, was an optimistic assumption. While the Board's action to reduce the investment return assumption improves the reasonableness of the assumption, the 8.5 percent investment rate of return remains at the upper end of returns used by other pension plans.

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 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 one-third of the required contribution.

The January 1, 2011 Actuarial Valuation Report sets forth the statutory minimum contribution rates that are necessary to keep the projected funded ratio above 60 percent in all years through 2039, based on assumptions which are not unreasonable in the aggregate. The Retirement Plan increased the employer and employee contribution rates for 2012 as delineated in the January 1, 2011 Actuarial Valuation: the employer rate increased from 10.69 to 11.3 percent (which is net of the employer debt service credit of 6% of pay); the employee rate increased from 8.345 to 8.65 percent. The January 1, 2011 Actuarial Valuation noted these increases were necessary to keep the Plan's funded ratio from declining below the statutorily required 60 percent level in all years through 2039.

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## **BACKGROUND**

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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 both the retirement benefits and 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 handle the retiree health care benefits. The Retiree Health Care Trust was established in May 2008 and by July 1, 2009, the Retirement Plan and Retiree Health Care Trust were required to be separate, according to the Plan's Executive Director.

The legislation 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 for each year up to and including fiscal year 2039, and achieve 90 percent funding by fiscal year 2059. 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 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.

On September 30, 2011 the Retirement Plan Board submitted the three documents below. 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 Plan for the year ended December 31, 2010;
- Investment Performance Report for the period ending December 31, 2010; and
- January 1, 2011 Actuarial Valuation for the Retirement Plan.

ILLINOIS PENSION CODE REQUIREMENTS
<p>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:</p> <ol style="list-style-type: none"> <li>(1) a financial balance sheet as of the close of the fiscal year;</li> <li>(2) a statement of income and expenditures;</li> <li>(3) an actuarial balance sheet;</li> <li>(4) statistical data reflecting age, service, and salary characteristics concerning all participants;</li> <li>(5) special facts concerning disability or other claims;</li> <li>(6) details on investment transactions that occurred during the fiscal year covered by the report;</li> <li>(7) details on administrative expenses; and</li> <li>(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.</li> </ol>
<p>Source: Pension Code (40 ILCS 5/1A-109) and Auditing Act (30 ILCS 5/3-2.3(e))</p>

## **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, 2011 Actuarial Valuation was presented to the Retirement Plan Board at its September 22, 2011 meeting. At that meeting, the Board of Trustees adopted the January 1, 2011 Actuarial Valuation and certified the employer and employee contribution rates for 2012. The rates adopted increased the contribution rates for 2012. The employer contribution rate will increase from 10.69 percent in 2011 to 11.3 percent in 2012 (which is net of the employer debt service credit of 6% of pay). The employee contribution rate increased from 8.345 percent in 2011 to 8.65 percent in 2012.

## **Review of Actuarial Assumptions Used**

We reviewed assumptions used in the Retirement Plan’s Actuarial Valuation as of January 1, 2011 submitted pursuant to 40 ILCS 5/22-101(e)(3) and found that the assumptions used were not unreasonable in the aggregate.

### **Investment Return Assumption**

While the assumptions used in the January 1, 2011 Actuarial Valuation were not unreasonable in the aggregate, one assumption, the investment return assumption, warrants additional discussion. 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 and not unreasonable in the aggregate, 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 8.5 percent. We requested a description of the process used by the CTA Retirement Plan and its actuary in arriving at the decision to change the investment return assumption from 8.75 percent to 8.5 percent. The Plan responded that the return assumption was changed based on the actuary’s recommendation. No additional documentation was provided.

While the Plan’s action to reduce the investment return assumption improves the reasonableness of the assumption, the 8.5 percent investment rate of return remains at the

upper end of returns used by other pension plans. Thus, we continue to have concerns regarding this assumption.

### **2009 Experience Study**

Our 2009 and 2010 Annual Reviews discussed that the 8.75 percent investment return assumption was based on an experience study completed by the Plan's prior actuary in August 2009. The experience study covered the period January 1, 2001 through December 31, 2007. The primary purpose of the study was to compare the demographic and economic experience against the Plan's actuarial assumptions used in the annual valuations.

An experience study provides critical information to the actuary by assessing how well assumptions used by the plan align with the actual experience of the plan. The 2009 experience study noted that for any retirement system, actuarial assumptions are intended to provide reasonable estimates of future expected events. To the extent that the actual experience deviates from the assumptions, gains or losses to the plan will occur.

In order to select an investment return rate, in 2009 the Plan's actuary ran a "Monte Carlo" simulation, which projects the return on assets numerous times (i.e., trials), and then examines the annual returns determined in each projection in aggregate. As a result of this simulation, the actuary found the **median investment return** over 30 years to be **7.63 percent**. They determined the 75<sup>th</sup> percentile investment return to be 8.85 percent, and while not disclosed, the 25<sup>th</sup> percentile investment return can be estimated by extrapolation as 6.4 percent. Under actuarial standards of practice known as "*best estimate range*," a return assumption is generally assumed to be reasonable if it falls within this 25<sup>th</sup> to 75<sup>th</sup> percentile range. The 8.75 percent investment return fell within this range. However, selecting an assumption at the edge of this interval can be overly optimistic. In fact, in the experience study, the Plan's actuary noted that an investment return rate of 8.75 percent has only a 27 percent chance of occurring over the next 30 years.

### **Comparison with Rates of Returns for Other Pension Plans**

An investment return assumption of 8.50 percent is at the upper range of investment returns for comparable plans. The 2009 Public Funds Survey includes data on 126 public pension plans. The highest investment return assumption found in the 2009 Public Funds Survey was 8.50 percent; the median investment return assumption was 8.0 percent. Of the 126 plans surveyed, only 13 of 126 (10%) had an investment return assumption of 8.50 percent. The *Public Funds Survey Summary of Findings for FY 2009* states "As with inflation assumptions, investment return assumptions for many plans have been reduced in recent years. In particular, all investment return assumptions in the Public Fund Survey above 8.5 percent have been reduced."

Further, the CTA Retirement Plan’s assumed *real rate of return*, which accounts for inflation, was toward the upper range of rates used by other public pension plans in the 2009 Public Fund Survey. The real rate of return is calculated by subtracting the general inflation assumption from the investment return. The Retirement Plan’s 2011 Actuarial Valuation did not provide a general inflation assumption. For the 2010 Valuation, the Board’s actuary stated that the general inflation assumption used in the valuation remained unchanged from prior year at 3.25 percent. If this was true again for 2011, the Retirement Plan’s real rate of return assumption, then, was 5.25 percent. The Public Fund Survey’s median assumed *real rate of return* was 4.5 percent. The highest real return in the Public Fund Survey was 5.50 percent.

The *Public Fund Survey Summary of Findings for FY 2009* states “The issue of public pension plan investment return assumptions has received growing attention in recent months, with some critics of the 8.0 percent return assumption charging that that return is unrealistically high. Several plans have reduced their investment return assumption during the last year, and others are considering doing so.”

In their *2011 Report on City & County Retirement Systems: Funding Levels and Asset Allocation*, Wilshire Consulting examined the asset allocation for 106 city and county retirement systems, 101 of which reported actuarial values on or after June 30, 2010. Wilshire forecasts that the long-term median return on city and county pension fund assets to be equal to 6.30 percent, based on beta-only asset class assumptions and excludes active management alpha. The 6.30 percent return is lower than the 6.50 percent noted in the 2010 Wilshire City and County Report and is lower than median actuarial interest rate of 8.0 percent for plans in the study as well as lower than the 8.50 percent selected for the Retirement Plan. The report states “Using Wilshire’s 2011 long-term return and risk forecasts, none of the 106 city and county retirement systems is expected to earn long-term asset returns that equal or exceed their actuarial interest rate assumption.”

Wilshire Consulting also published their *2011 Report on State Retirement Systems: Funding Level and Asset Allocation*. Wilshire Consulting examined the asset allocation and funding levels for 126 state retirement systems. Several of these state retirement systems are the same plans that are included in the Public Fund Survey. Wilshire estimated that the median state pension fund has an expected return of 6.50 percent. This median expected return is lower than the current median actuarial interest rate assumption of 8.0 percent used by the plans in the study and is lower than the 8.50 percent assumption selected for the CTA Retirement Plan.

### **Aon Hewitt Analysis**

Actuarial Standards of Practice No. 27 allows for the use of a “best estimate range” when selecting economic assumptions. A return assumption is generally assumed to be reasonable if it falls within the 25<sup>th</sup> to 75<sup>th</sup> percentile range. However, selecting an assumption at the edge of this interval can be overly optimistic.

Using Aon Hewitt's Expected Return Tool (as of the 1<sup>st</sup> Quarter of 2011 with an inflation assumption of 2.20%) and the Target Asset Allocation found in the CTA Retirement Plan's Investment Performance Report for the Period Ending December 31, 2010, Aon Hewitt determined that the 25<sup>th</sup> to 75<sup>th</sup> percentile range of the CTA Retirement Plan's investment returns to be 6.20 percent to 9.63 percent, with the 50<sup>th</sup> percentile rate equal to 7.90 percent. The Retirement Plan's investment return assumption of 8.50 percent represented the 41<sup>st</sup> percentile in Aon Hewitt's tool. The Aon Hewitt Expected Return Tool calculates the expected portfolio growth rate (50<sup>th</sup> percentile, geometric return) before any value added from active management.

### **Conclusion: Investment Return Assumption**

In summary, the January 1, 2011 Actuarial Valuation, adopted by the Board at its September 22, 2011 meeting, reduced the investment return assumption from 8.75 percent to 8.50 percent. Our prior Annual Reviews noted that the 8.75 percent assumption was overly aggressive. While the 8.50 percent return assumption is more reasonable, it remains at the upper end of rates of return used by other retirement plans in the United States. In 2010, the Plan's actuary indicated to the extent that markets continue to provide sub-par investment results over an extended period of time, or to the extent that the interest rate and inflation components of the overall asset returns continue to be at historical lows for an extended period of time, this assumption may need to be adjusted downwards in order to better reflect future expectations of long-term market results.

### **Other Actuarial Assumptions**

Other actuarial assumptions used in the January 1, 2011 Actuarial Valuation remain unchanged from the 2010 Valuation. For the 2010 Actuarial Valuation, the Retirement Plan's actuary made changes to the headcount growth assumption, to the wage inflation assumption, and to the salary increase assumption. According to the 2010 Valuation, these changes were made to reflect the current economic environment, current furlough and salary programs already in place, and the pay increases included in the current Collective Bargaining Agreements.

As part of this year's Review, we compared the changes in assumptions made in the 2010 Valuation with what was reported in the 2011 Valuation:

- A 5 percent headcount reduction was expected for 2010. Based on the 2011 Actuarial Valuation, the actual decrease in active participants from January 1, 2010 to January 1, 2011 was 9.46 percent. The decrease in active participants was a contributing factor to the increase in the contribution rates between 2011 and 2012. The *Public Fund Survey Summary of Findings for FY 2009* states "By itself, a declining ratio of actives to annuitants does not indicate a problem,

because most public pensions fund the cost of their benefits in advance. However, to the extent that a plan is underfunded, a low or declining rate of actives to annuitants can complicate the plan's ability to move toward full funding, as amortizing unfunded liabilities over a smaller payroll base becomes relatively more expensive." The 2011 Actuarial Valuation assumed a steady future level of active members of 8,879 through the projection period of 2060. We note that to the extent future participation differs from this assumption, the future contribution levels will be impacted.

- In the January 1, 2010 Valuation, the salary scale assumption was modified to incorporate a "select and ultimate" assumption. This means that there is a set of assumptions that is in effect for a "select" or short-term period. The select period is 2010 through 2014 with the ultimate rates achieved in 2015. In 2010, the Board's actuary noted that they would expect the economy to have recovered by 2014 such that the "long-term trends in interest rates, inflation and salary increases would prevail once again." For the most recent valuation, the actuary indicated that they "had discussions with the CTA Budget and Finance staff regarding the salary scale assumption. The CTA Budget and Finance staff confirmed the salary increases were still their best estimate as of January 1, 2011." In an October 26, 2011 email, the actuary also noted that "significant information regarding an economic recovery was not available to warrant a reversion to the long-term assumptions prior to, or after, 2014."

Our consultants, Aon Hewitt, concluded that the use of a select and ultimate assumption for salary scale is reasonable. Aon Hewitt noted, however, that the compensation increase assumptions for 2015 and beyond exceed the current inflation rate by at least 175 basis points. For employees with five or more years of service in 2015, the compensation increase assumption used in the 2011 Actuarial Valuation is 5.00 percent. This rate exceeds the inflation assumption of 3.25 percent. The National Average Wage Index found at [www.ssa.gov](http://www.ssa.gov) indicates an increase of 2.36 percent between the 2009 and 2010 national average wage. The Plan's ultimate compensation increase assumptions, then, indicate that employees of the CTA will have compensation increases in excess of the current national average.

Further, the January 1, 2011 Actuarial Valuation provides actuarial gain or loss information with respect to various assumptions, including the payroll growth assumption. Therefore, the reader of the current and future actuarial valuations will be able to monitor the actual experience of the Plan with respect to the assumptions.

The January 1, 2011 Actuarial Valuation states the mortality assumption as follows:

- (a) Active Members: The 1994 Group Annuity Mortality Table for males and females multiplied by 90 percent;

- (b) Retirees & Survivors: The 1994 Group Annuity Mortality Table for males and females; and
- (c) Disabled Employees: The 1994 Group Annuity Mortality Table for males and females multiplied by 110 percent.

Actuarial Standards of Practice No. 35 (ASOP No. 35) was recently amended such that Section 3.5.3 has been revised to provide guidance with respect to mortality improvement before and after the measurement date. The revisions to ASOP No. 35 are effective for any actuarial valuation with a measurement date on or after June 30, 2011. Therefore, it is not necessary for the January 1, 2011 Actuarial Valuation to comply with the revisions to the standard. However, we draw attention to the fact that changes to the mortality assumption will likely be needed for the January 1, 2012 Actuarial Valuation to include a projection of future mortality improvement.

The last experience study was performed in 2009 by the Plan's prior actuary. This study included a review of the mortality assumption and was based on Retirement Plan data from January 1, 2001 to December 31, 2007. An updated experience study with data through December 31, 2011 would be appropriate. Our consultants, Aon Hewitt, stated that recent mortality studies would generally conclude that mortality rates have shown improvement from the experience on which the 1994 Group Annuity Table was based.

### **Funded Ratio**

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 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% . . . .

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 one-third of the required contribution.

The January 1, 2011 Actuarial Valuation report concluded that the statutory minimum contribution rates applicable for plan year 2012 would need to be 11.3 percent for the CTA (which is net of the 6% credit given to the CTA for debt service on the pension obligation bonds sold in 2008) and 8.65 percent for employees.

As of January 1, 2011, the actuarial value of assets for pension benefits was \$1.91 billion and the actuarial accrued liability was approximately \$2.72 billion, according to the Actuarial Valuation by the Retirement Plan's actuary. The funded ratio **decreased** from 74.8 percent as of January 1, 2010 to 70.1 percent as of January 1, 2011. The Actuarial Valuation notes the decrease is due primarily to the amortization of deferred asset losses in the actuarial value of assets and the decrease in the valuation interest rate assumption from 8.75 percent to 8.5 percent.

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## SCOPE OF ANNUAL REVIEW

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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.

The scope of our work included reviewing the information submitted by the Retirement Board on September 30, 2011. This information included: the Audited Financial Statements for the Plan for the year ended December 31, 2010; the Investment Performance Report for the period ending December 31, 2010; and the January 1, 2011 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.

Our consultants, Aon Hewitt, reviewed the reasonableness of the actuarial assumptions used by the CTA Retirement Plan in their January 1, 2011 Actuarial Valuation. Since many of the actuarial assumptions were unchanged from last year's review, which concluded they were not unreasonable in the aggregate, our consultants focused on the following assumptions in this year's Review:

- Investment return assumption,
- Timing of ultimate salary scale assumption,
- Review of head count reduction assumption, and
- ASOP No. 35 Mortality Table changes.

We also requested and received minutes of the Retirement Board meetings for the period December 2010 through September 2011. The minutes noted that in 2011, the Retirement Board approved a payroll audit. According to the Board's Executive Director, as of November 2011, the audit was underway. The purpose of the audit is to ensure that the employers (CTA, ATU Local 241 and ATU 308) are accurately withholding and remitting employee and employer contributions to the Retirement Plan and Retiree Health Care Trust.

The OAG performed the review with assistance from our consultants, Aon Hewitt. Aon Hewitt's review concluded that:

1. The required documents submitted by the Board of Trustees of the Retirement Plan have been made, and meet the statutory requirements of Section 5/3-2.3(e)(1), (2), and (3) of the Auditing Act.
2. The assumptions stated in the actuarial report submitted pursuant to 40 ILCS 5/22-101(e)(3) are not unreasonable in the aggregate.
3. The investment return assumption was reduced from 8.75 percent to 8.50 percent. No documentation was provided to support this change. While the 8.50 percent investment return assumption is not unreasonable in the aggregate, it is an optimistic assumption and should be viewed as such.
4. The actuarial report submitted by the Plan to the Office of the Auditor General sets forth the Statutory Minimum Contribution Rates that are necessary to keep the projected funded ratio above 60 percent in all years through 2039, based on assumptions which are not unreasonable in the aggregate, so that the funded ratio does not decline below 60 percent. The adopted contribution rates for 2012 are the same as the Statutory Minimum Contribution Rates.

The Retirement Plan was provided a draft of this report for their review.



**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.

(Source: P.A. 90-507, eff. 8-22-97.)

**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. 95-708, eff. 1-18-08.)