Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago
A Component Unit of the City of Chicago

Financial Statements

December 31, 2019

CALIBRE CPA GROUP

Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago

Financial Statements with Supplementary Information

Years Ended December 31, 2019 and 2018

Contents

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Report of Independent Auditors

To the Board of Trustees of
Laborers' and Retirement Board Employees'
Annuity and Benefit Fund of Chicago

We have audited the accompanying financial statements of Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago (the Plan), a component unit of the City of Chicago, which comprise the statements of fiduciary net position as of December 31, 2019 and 2018, and the related statements of changes in fiduciary net position for the years then ended, and the related notes to the financial statements, which collectively comprise the Plan's basic financial statements.

Management's Responsibility

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditors consider internal control relevant to the Plan's preparation and presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above, present fairly, in all material respects, the fiduciary net position of Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago at December 31, 2019 and 2018, and the changes in fiduciary net position for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplemental Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis on pages 4 through 10, Schedules of Changes in Net Pension Liability and Related Ratios Multiyear, Schedule of the Net Pension Liability Multiyear, Schedule of Contributions Multiyear, Schedule of Investment Returns Multiyear, Schedule of Changes in Total OPEB Liability for the Plan's Employer and Employer Related Ratios Multiyear, and Notes to the Schedules on pages 46 through 53 be presented to supplement the basic financial statements. Such information, although not part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historic context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquires of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audits of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audits were conducted for the purpose of forming an opinion on the financial statements that comprise the Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago's basic financial statements. The supplementary information such as the Schedules of Invested Assets, Schedules of Administrative Expenses, Investment Expenses and Professional Services and Schedules of Investment Expenses on pages 54 through 56 are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audits of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supplementary information is fairly stated in relation to the basic financial statements as a whole.

Caliber CPA Group, PLLC

Chicago, IL
June 9, 2020

LABORERS' AND RETIREMENT BOARD EMPLOYEES
ANNUITY AND BENEFIT FUND OF CHICAGO

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)

This discussion and analysis is prepared by the management staff of the Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago (the Plan) for the purpose of providing an overview of the Plan's financial activities for the years ended December 31, 2019 and 2018. We encourage readers to consider the information presented here in conjunction with the Plan's financial statements and actuarial report.

Financial Highlights

- The net position for the Plan at December 31, 2019 was $1.19 billion, a $93 million increase from the Plan's net position at December 31, 2018. The net position for the Plan at December 31, 2018 was $1.09 billion, a $173 million decrease from the Plan's net position at December 31, 2017. The net position is restricted for future benefit obligations. The increase in 2019 is largely attributable to an appreciation in the value of invested assets. The prior year decrease is attributed to a decline in the value of invested assets.

- The investment portfolio recorded gains of $184.0 million and losses of $75.2 million for fiscal years 2019 and 2018, respectively. During 2019, the Plan's portfolio generated a preliminary rate of return, net of fees, of 18.0%. The rate of return, net of fees, for 2018 was -6.7%.

- Based on the actuarial valuations as of December 31, 2019 and 2018, the overall funded ratios for the Plan were 42.6% and 44.7%, respectively. For accounting purposes pursuant to GASB 67 and 68, which uses a Single Discount Rate and shorter amortization periods to measure the total pension liability, the funded ratio of the Plan was 42.8% for 2019 and 40.6% for 2018.

- Contribution revenue for 2019 totaled $77.5 million, representing an increase of 18% from 2018. This increase is due to the recognition of larger employer contributions resulting from the passage of P.A. 100-0023 in 2017. This legislation provides for predetermined increases in employer contributions over a five-year period followed by actuarially determined employer contribution in subsequent years. The 2018 contribution revenue of $65.7 million represents an increase of 24.2% from 2017.

- Total benefits and refunds paid in 2019 were $165.0 million, reflecting an increase of 3.1% over the $160.1 million of benefits and refunds paid in 2018. The 2018 benefits and refunds reflect an increase of 1.9% from 2017. The variances between years are primarily due to cost of living adjustments, fluctuations in the annuity roll each year, and the amount of refund applications in any given year.

Financial Highlights (continued)

- Administrative and OPEB expenses were $3.7 million in 2019 compared to $3.9 million in 2018 and $4.0 million in 2017. Fluctuations in legal expenses, personnel costs, Other Postemployment Benefits (OPEB) expenses, system development costs, and rent expense account for the variances from year to year.

Overview of the Financial Statements of the Plan

This discussion and analysis is intended to serve as an introduction to the Plan's financial reporting which is comprised of the following components.

1. Basic Financial Statements: The two basic financial statements are the Statement of Fiduciary Net Position and the Statement of Changes in Fiduciary Net Position. The Statement of Fiduciary Net Position reports the balance of net assets restricted for payment of future pension benefits as of the fiscal year end, with comparative values reported as of the previous fiscal year end. The Statement of Changes in Fiduciary Net Position reports the net increase/(decrease) in net position for the fiscal year, with comparative values reported for the previous fiscal year. This increase/(decrease), when added to the previous year's net position, supports the total net position as reported in the Statement of Fiduciary Net Position.

2. Notes to the Financial Statements: Notes to the Financial Statements provide additional valuable information that assists the reader to better understand the Plan's financial position. The notes are an integral part of basic financial statements.

3. Required Supplementary Information: The required supplementary information consists of the Schedules of Changes in Net Pension Liability and Related Ratios Multiyear and Additional Notes; Schedule of the Net Pension Liability Multiyear; Schedule of Contributions Multiyear and related Notes; and Schedule of Investment Returns Multiyear. Also included are Schedules of Changes in Total OPEB Liability for the Plan as Employer and Employer Related Ratios Multiyear. These schedules and related notes emphasize the long-term nature of pension funds and show the Plan's progress in accumulating sufficient assets to pay benefits when due. Actuarial trend information is presented for OPEB liabilities that are associated with the Plan as Employer who offers its retirees and their eligible dependents a postemployment group health care plan.

4. Supplementary Information: Schedules of Invested Assets; Schedules of Administrative Expenses, Investment Expense, and Professional Services; and Schedules of Investment Expenses comprise the supplementary information.

Financial Analysis

The summarized comparison shown below indicates that the Net Position Restricted for Pension Benefits at December 31, 2019 amounted to $1.19 billion, which was an increase of $93 million, or 8.5%, from $1.09 billion at December 31, 2018. This increase in Net Position compares to a decrease of $173 million, or 13.6%, in Net Position that occurred between December 31, 2017 and December 31, 2018.

Assets

An increase or decrease in invested assets is dependent upon both the performance of the Plan's investment portfolio as well as the need to liquidate from the portfolio to pay benefits and other operating expenses in any given year. Total assets increased in 2019 by $105 million, or 9.2%, compared to a decrease of $192 million, or 14.4%, in assets in 2018 from the prior year level. For 2019, the increase was largely attributed to appreciation in the value of invested assets as well as higher receivables of employer contributions and securities lending invested collateral. For 2018, a decrease in the value of invested assets and lower securities lending invested collateral resulted in a decrease in assets.

As of December 31, 2019, receivables were 23.2% higher than 2018 mainly due to the higher statutorily required employer contributions accrued but not yet received due to the passage of P.A. 100-0023 in 2017. In 2018, for the same reason, total receivables were up 34.5% from 2017. Higher levels of plan member receivables in 2019 had a smaller contribution to the overall increase in receivables.

CONDENSED COMPARATIVE STATEMENTS OF FIDUCIARY NET POSITION

	December 31,			Net Change	
	2019	2018	2017	2018 to 2019	2017 to 2018
Receivables	$ 64,076,313	$ 52,007,883	$ 38,675,837	$ 12,068,430	$ 13,332,046
Investments, at fair value	1,133,895,471	1,055,790,128	1,242,661,491	78,105,343	(186,871,363)
Invested securities lending cash collateral	46,815,031	32,279,613	51,184,334	14,535,418	(18,904,721)
Property and equipment	-	-	930	-	(930)
Total assets	1,244,786,815	1,140,077,624	1,332,522,592	104,709,191	(192,444,968)
Deferred outflows: Accumulated decrease in fair value of hedging derivatives	1,053,906	-	274,037	1,053,906	(274,037)
Liabilities	58,291,252	45,227,086	65,242,068	13,064,166	(20,014,982)
Deferred inflows: Accumulated increase in fair value of hedging derivatives and resources related to OPEB	-	166,687	-	(166,687)	166,687
Net position - restricted for pension benefits	$ 1,187,549,469	$ 1,094,683,851	$ 1,267,554,561	$ 92,865,618	$ (172,870,710)

Liabilities

In 2019, the Plan's liabilities consisted primarily of the securities lending cash collateral liability, unsettled trades and professional fees payable. The Plan's liabilities in 2019 were $13.1 million higher than in 2018 due mainly to higher values of securities lending cash collateral liability. In 2018, the Plan's liabilities were $20 million lower than in 2017 due mainly to lower values of securities lending cash collateral liability. The changes in liabilities over the past few years largely rests with activity in the securities lending program and unsettled trades at year end.

Deferred Outflows and Inflows

Derivative instruments are used by the Plan to manage specific risks and to make investments. Examples include forward and futures contracts. The net fair value of futures used for hedging activities are reported as either deferred outflows or deferred inflows of resources. Deferred outflows of $845 thousand for 2019 represent the net fair value of foreign currency forward contracts outstanding at December 31, 2019. For the year ended December 31, 2018, the Plan reported $37 thousand in net deferred inflows as compared to net outflows of $274 thousand the prior year. The outflow or inflow fluctuates depending on the net fair value of derivative contracts at year end.

Differences between expected and actual experience and changes in assumptions are recognized in OPEB expense using a systematic and rational method over a closed period equal to the average of the expected remaining service lives of all employees that are provided with OPEB through the OPEB plan determined as of the beginning of the measurement period. For the year ended December 31, 2019, the Plan reported $209 thousand in net deferred outflows of resources related to OPEB that will be recognized in future OPEB expenses. These net deferred outflows are due to assumption changes and differences between expected and actual non-investment experience. For the year ended December 31, 2018, the Plan reported $130 thousand in net deferred inflows of resources related to OPEB that will be recognized in future OPEB expenses. These net deferred inflows are due to assumption changes. Further detail of OPEB is provided in Note 14 of the Notes to Financial Statements.

Condensed Comparative Statements of Changes in Fiduciary Net Position

	December 31,			Net Change	
	2019	2018	2017	2018 to 2019	2017 to 2018
Additions					
Total contributions	$ 77,489,219	$ 65,680,985	$ 52,867,428	$ 11,808,234	$ 12,813,557
Total investment income (loss)	184,026,828	(75,219,068)	207,981,245	259,245,896	(283,200,313)
Miscellaneous income	-	661,530	-	(661,530)	661,530
Total additions	261,516,047	(8,876,553)	260,848,673	270,392,600	(269,725,226)
Deductions					
Benefits and refunds	164,959,258	160,060,768	157,049,889	4,898,490	3,010,879
Admin & OPEB expense	3,691,171	3,933,389	3,984,947	(242,218)	(51,558)
Total deductions	168,650,429	163,994,157	161,034,836	4,656,272	2,959,321
Net increase (decrease)	92,865,618	(172,870,710)	99,813,837	265,736,328	(272,684,547)
Net position - restricted for pension benefits					
Beginning of year	1,094,683,851	1,267,554,561	1,167,740,724	(172,870,710)	99,813,837
Ending of year	$ 1,187,549,469	$ 1,094,683,851	$ 1,267,554,561	$ 92,865,618	$ (172,870,710)

Additions

Member contributions, employer contributions, and investment income are the funding sources for benefit payments. In 2019 and 2018, employer contributions continued to be higher than previous years due to the 2017 passage of P.A. 100-0023 which provides for predetermined increases in employer contributions over a five-year period followed by actuarially determined employer contribution in subsequent years. Employee contributions for 2019 increased modestly from the prior year. In the three years shown on the previous page, investment income rose and fell based on the performance of the financial markets.

A preliminary robust investment return of 18.0% in 2019 equated to an investment gain of $184 million. In 2018, a decline of -6.7% equated to an investment loss of $75 million as compared to a strong gain of 18.7% in 2017 resulting in an increase of $208 million. Dividend and interest income increased modestly between each of the three years.

Deductions

Deductions consist primarily of annuity and disability benefit payments, contribution refunds, and administrative expenses (including office staff OPEB). Benefit and refund expense increased 3.1% in 2019 as compared to 1.9% in 2018 and 0.3% in 2017. The automatic annual increase in annuities for employee annuitants, overall fluctuations in annuity payments, and the healthcare subsidy payments contributed to the variances from year to year.

Total administrative and OPEB expenses decreased $242 thousand in 2019 while 2018 reflected a decrease of $52 thousand in expenses compared to 2017. For 2019, higher litigation and OPEB expenses were muted by lower software development costs and significant savings in healthcare premiums.

Overall, Net Position - Restricted for Pension Benefits increased by approximately $93 million, or 8.5%, in 2019 as compared to the prior year. In 2018, Net Position - Restricted for Pension Benefits reflected a $173 million decrease or 13.6% from 2017. As shown in the table on page 7, investment income fluctuations and the growing levels of benefit and refund expenses have the greatest impact on the Net Position at year end.

Investment Performance

The Plan experienced robust returns from its investment portfolio in 2019 largely due to the overall strong performance throughout the broad financial markets, as evidenced by the benchmark returns in the table below. As reported by the Plan's investment consultant, the preliminary total investment return based on fair value, net of fees, was 18.0% in 2019 compared to -6.7% in 2018. In absolute terms, all asset classes positively contributed to performance. In relative terms, only fixed income and international equity exceeded their respective benchmarks.

Investment Performance (continued)

The following table provides preliminary performance, net of fees, by asset class for fiscal year 2019.

Preliminary Rates of Return, Net of Fees, for Fiscal Year 2019			
Asset Class	Return %	Benchmark	Return %
Fixed income	8.9	BBgBarc Global Aggregate (Hedged)	8.2
Domestic equity	30.3	Russell 3000	31.0
International equity	27.2	MSCI ACWI ex USA	21.5
Global equity	23.9	MSCI ACWI	26.6
Private debt	2.7	Credit Suisse Leveraged Loans	8.2
Private equity	2.0	Cambridge Assoc. US Private Equity	10.6
Real estate	4.9	NCREIF Property Index	6.4
Hedge funds	6.0	HFRI Fund of Funds	8.4

Actuarial Valuation

Each year, the Plan commissions an actuary to assess the financial strength of the Plan. The actuary compares the value of future benefits to the value of the Plan's assets. As prescribed by accounting standards, the actuary uses a valuation method different than fair value to determine the value of the Plan's assets. It differs in that the actuarial value of assets spreads investment gains and losses over a five-year period in an attempt to smooth out market volatility. For fiscal year 2019, the consulting actuary reports the Plan's actuarial liability was $2.70 billion and the actuarial value of assets was $1.15 billion. For 2018, the Plan's actuarial liability was $2.65 billion and the actuarial value of assets was $1.19 billion.

The ratio of the assets to actuarial liabilities is termed the funded ratio and represents the percentage of assets available to pay the future benefits. The funded ratio, measured using the actuarial value of assets, which reflects smoothing of the investment gains and losses over a five-year period, decreased from 44.7% in 2018 to 42.6% in 2019. This drop in the funded ratio is mainly attributable to an increase in the Actuarial Accrued Liability due to (1) unfavorable investment experience, and (2) contributions less than Normal Cost-plus interest on the Unfunded Actuarial Accrued Liability.

For accounting and financial reporting pursuant to GASB 67 and 68, which uses a Single Discount Rate and shorter amortization periods to measure the total pension liability, the funded ratio of the Plan was 42.8% for 2019 and 40.6% for 2018. The increase in the value of invested assets drove the 5.4% increase in the funding ratio from 2018 to 2019.

Future Outlook

The passage of P.A. 100-0023 in 2017 continues to be significant in that it has provided a funding policy that puts the Plan on a path toward long-term solvency. The Plan will continue to receive increasing amounts of pre-determined employer contributions over the next two years after which the contribution level will be actuarially determined with the goal of reaching a 90% funded status by 2058.

The Board of Trustees (the Board) and staff of the Plan are dedicated to preserving the Plan and are doing so with honesty, dedication, and integrity. We strive to be responsible in our actions that are vital to the success of the Plan.

This report does not reflect the recent and still developing impact that the COVID-19 pandemic has had to the Plan. We continue to monitor these developments and their effect on the Plan going forward.

Request for Information

<u>Questions about any information provided in this report should be addressed to:</u>
Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago
Attn: Executive Director
321 N Clark St Ste 1300
Chicago IL 60654-4739

Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago

Statements of Fiduciary Net Position

December 31, 2019 and 2018

	2019	2018
Assets and Deferred Outflows		
Receivables		
Employer	$ 58,683,927	$ 47,436,901
Plan member	2,277,712	1,635,782
Interest and dividends	3,033,971	2,859,481
Other receivables	80,703	75,719
Total receivables	64,076,313	52,007,883
Investments - at fair value		
Cash and short-term investments	40,451,166	26,101,699
Equities	628,788,321	508,642,697
Fixed income	221,262,703	256,524,010
Private markets	33,215,323	27,062,565
Real estate	121,407,590	121,113,142
Hedge funds	88,770,368	85,604,723
Global asset allocation funds	-	30,704,570
Subtotal	1,133,895,471	1,055,753,406
Forward currency contracts - net	-	36,722
Securities lending cash collateral	46,815,031	32,279,613
Total investments - fair value	1,180,710,502	1,088,069,741
Property and equipment - net	-	-
Total assets	1,244,786,815	1,140,077,624
Deferred outflows		
Accumulated decrease in fair value of hedging derivatives and resources related to OPEB	1,053,906	-
Liabilities, Deferred Inflows and Net Position		
Liabilities		
Due to broker - net	4,380,991	8,346,689
Derivatives - net	1,677,355	-
Refunds, professional fees payable and other liabilities	2,521,594	2,240,119
OPEB liability	2,896,281	2,360,665
Securities lending cash collateral	46,815,031	32,279,613
Total liabilities	58,291,252	45,227,086
Deferred inflows		
Accumulated increase in fair value of hedging derivatives and resources related to OPEB	-	166,687
Net position - restricted for pension benefits	$1,187,549,469	$1,094,683,851

See accompanying notes to financial statements.

Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago

Statements of Changes in Fiduciary Net Position

Years Ended December 31, 2019 and 2018

	2019	2018
Additions		
Contributions		
Employer	$ 59,346,056	$ 47,844,184
Plan member	18,143,163	17,836,801
Total contributions	77,489,219	65,680,985
Investment income (loss)		
Net appreciation (depreciation) in fair value of investments	168,467,255	(88,321,798)
Interest	9,701,638	8,399,584
Dividends	10,337,467	9,701,254
Private markets income (loss) - net	646,919	(55,111)
Real estate operating income - net	2,403,284	719,185
Hedge funds income - net	122,307	739,684
Global asset allocation fund income - net	-	1,268,239
	191,678,870	(67,548,963)
Less investment expenses	(7,977,942)	(7,886,654)
Investment income (loss) - net	183,700,928	(75,435,617)
Securities lending		
Income	1,085,221	996,448
Borrower rebates	(660,145)	(696,829)
Bank fees	(99,176)	(83,070)
Securities lending income - net	325,900	216,549
Miscellaneous income	-	661,530
Total additions	261,516,047	(8,876,553)
Deductions		
Benefits	162,118,145	157,317,980
Refunds	2,841,113	2,742,788
Administrative and OPEB expenses	3,691,171	3,933,389
Total deductions	168,650,429	163,994,157
Net change	92,865,618	(172,870,710)
Net position - restricted for pension benefits		
Beginning of year	1,094,683,851	1,267,554,561
End of year	$1,187,549,469	$1,094,683,851

See accompanying notes to financial statements.

NOTE 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago (the Plan) is administered in accordance with Chapter 40, Act 5, Articles 1 and 11 of the Illinois Compiled Statutes (the Statutes). The costs of administering the Plan are financed by employer contributions in conformance with state statutes.

Method of Accounting - The financial statements reflect an accrual basis of accounting. Plan member contributions are recognized in the period in which the contributions are due. Employer contributions are recognized when due and the employer, the City of Chicago (City), has made a formal commitment to provide the contributions. Benefits, refunds, administrative and other post-employment benefits (OPEB) expenses are recognized when due and payable in accordance with the terms of the Plan.

Investments - Investments are reported at fair value which generally represents reported market value as of the last business day of the year. Quoted market prices, when available, have been used to value investments. For equities, swaps and forward currency contracts, except those reported at net asset value, fair value is determined by using the closing price listed on the national securities exchanges as of December 31. Fair value for fixed income securities, except those reported at net asset value, are determined principally by using quoted market prices provided by independent pricing services. Equity and fixed income funds are reported at net asset value per share. Cash and short-term investments are valued at cost which approximates fair value. Global asset allocation funds and alternative investments, which include real estate, private markets (private equity and private debt investments) and hedge funds, are valued using current estimates of fair value provided by the investment manager. Such valuations consider variables such as cash flow analysis, recent sales prices of investments, comparison of comparable companies' earnings multiples, withdrawal restrictions, annual audits, and other pertinent information. Because of the inherent uncertainty of the valuation for these other alternative investments, the estimated fair value may differ from the values that would have been used had a ready market existed. The reported values of real estate and private markets are current values unless that information was unavailable in which case the reported value will lag one quarter behind the date of these financial statements. The difference between the current value and the lag has been evaluated and determined not to be material.

Unsettled trades as of the end of the year are recorded net. At December 31, 2019 and 2018, $6,268,095 and $9,636,783, respectively, were due to broker and $1,887,104 and $1,290,094, respectively, were due from broker for unsettled trades.

NOTE 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Property and Equipment - Property and equipment are carried at cost. Major additions are capitalized while replacements, maintenance and repairs which do not improve or extend the lives of the respective assets are expensed currently. Depreciation is computed by using the straight-line method over an estimated useful life of five years, except for the custom software package development which is depreciated over 10 years.

Administrative Expenses - Administrative expenses are budgeted and approved by the Plan's Board. Funding for these expenses is included in the employer contributions as mandated in Chapter 40, Act 5, Article 11 of the Statutes.

Reclassifications - Certain reclassifications have been made to prior year amounts to conform to the presentation for the current year. These reclassifications did not change the total net position - restricted for pension benefits or the changes in fiduciary net position from the totals previously reported.

Estimates - The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect certain reported amounts and disclosures in the financial statements. Actual results could differ from those estimates.

NOTE 2. PLAN DESCRIPTION

The Plan was established in 1935 and is governed by legislation contained in the Statutes, particularly Chapter 40, Act 5, Article 11 (the Article) which specifically and exclusively refers to the Plan. The Plan can be amended only by the Illinois Legislature. The Plan is a single-employer defined benefit pension plan with a defined contribution minimum. The Plan was created to provide retirement and disability benefits for employees of the City who are employed in a title recognized by the city as labor service and for the dependents of such employees.

The Statutes authorize a Board of eight members to carry out the provisions of the Article. According to the Article, two members of the Board are ex officio, two are to be elected by the employee members of the Plan, one is to be elected by the retired members of the Plan, one is to be appointed by the local labor union and two are to be appointed by the Department of Human Resources. The two ex officio members are the City Comptroller (or someone chosen from the Comptroller's office) and the City Treasurer (or someone chosen from the Treasurer's office).

All members of the Board are fiduciaries with respect to the Plan and are statutorily mandated to discharge their duties, as such, solely in the interest of the Plan's participants and beneficiaries.

NOTE 2. PLAN DESCRIPTION (CONTINUED)

The Board has the powers and duties required in the Article to collect all contributions due to the Plan, to invest the Plan's reserves, to have an annual audit, to appoint employees, to authorize or suspend payment of any participant's individual benefit and to have exclusive original jurisdiction in all matters relating to or affecting the Plan. The Board approves its own budget which is prepared by the administrative staff of the Plan. The Board is required annually to submit to the City Council of the City a detailed report of the financial affairs and status of the reserves of the Plan. Provisions in other articles of Chapter 40 require the Board to submit its annual audit and actuarial valuation reports to the State of Illinois Department of Financial and Professional Regulation's (IDFPR) Division of Insurance, as well as another detailed annual report, the form and content of which is specified by the IDFPR's Division of Insurance.

Any employee of the City or the Board of Education of the City employed under the provisions of the municipal personnel ordinance as labor service or any persons employed by retirement boards of certain annuity and benefit funds of the City are covered by the Plan. Currently, covered employees are required to contribute a percentage of their salary to the Plan, 8.5% for Tier 1 and 2 members and 11.5% for Tier 3 members. If an employee leaves covered employment without qualifying for an annuity, accumulated contributions are refunded with interest. For the employer contribution for the years ended December 31, 2016 and prior, the City's total contribution is limited to an amount not more than the total amount of contributions made by the employees to the Plan in the calendar year two years prior to the current year, multiplied by 1.00. For payment years 2018 through 2022 (tax levy years 2017 through 2021), the City shall contribute $36,000,000, $48,000,000, $60,000,000, $72,000,000, and $84,000,000, respectively. For payment years 2023 through 2058 (tax levy years 2022 through 2057), the amount shall be equal to the projected normal cost plus an amount determined on a level percentage of applicable employee payroll basis that is sufficient to bring the total actuarial assets of the Plan up to 90% of the total actuarial liabilities of the Plan by the end of 2058. For years after 2058, the employer portion shall be equal to the amount, if any, needed to bring the total actuarial assets of the Plan up to 90% of the total actuarial liabilities of the Plan as of the end of each year. The source of funds for the City's contribution has been designated by the Statutes and is derived from the City's annual property tax levy, or from any source legally available for this purpose, including but not limited to, the proceeds of City borrowings.

The Plan is considered by the City to be a component unit of the City and is included in the City's financial statements as a pension trust fund.

NOTE 2. PLAN DESCRIPTION (CONTINUED)

At December 31, 2019 and 2018, plan members consisted of the following:

	2019	2018
Retirees and beneficiaries currently receiving benefits	3,653	3,688
Inactive plan members entitled to benefits (or a refund of contributions) but not yet receiving them	1,486	1,489
Active plan members (including plan members receiving disability benefits)		
Vested	1,779	1,884
Non-vested	883	831
Total plan members	7,801	7,892

The Plan provides retirement benefits as well as survivor and disability benefits. In 2010, legislation (P.A. 96-0889) was approved which in effect established two distinct classes of membership with different retirement eligibility conditions and benefit provisions. In 2017, legislation (P.A. 100-0023) was approved which added a third distinct class of membership with different retirement eligibility conditions and benefit provisions. For convenience, the Plan uses a tier concept to distinguish these groups:

Tier 1 – Employees who first became members prior to January 1, 2011.
Tier 2 – Employees who first became members on or after January 1, 2011.
Tier 3 – Employees who first became members on or after July 6, 2017 or any Tier 2 member who irrevocably elected to be subject to the Tier 3 benefit structure.

Retirement Benefits:

Tier 1: Employees age 55 or more with at least 10 years of service are entitled to receive a money purchase annuity with partial City contributions if under age 60 with less than 20 years of service. Employees age 55 or more with at least 20 years of service or age 50 or more with at least 30 years of service are entitled to receive a minimum formula annuity of 2.4% per year of service, multiplied by the final average salary. Final average salary is calculated using salary from the highest four consecutive years within the last 10 years of service preceding retirement. If the employee retires prior to age 60, the annuity shall be reduced by ¼ of 1% for each month the employee is under age 60, unless the employee is 50 or over with at least 30 years of service or 55 or over with at least 25 years of service.

The original annuity is limited to 80% of the highest average annual salary, adjusted for annual Internal Revenue Code (IRS) §401(a) (17) and §415 limitations. There is a 10-year deferred vested benefit payable at age 60. Employees who retire at age 60 or over with at least 10 years of service are entitled to a minimum of $850 per month.

NOTE 2. PLAN DESCRIPTION (CONTINUED)

Retirement Benefits (continued):

Tier 2: Employees with at least 10 years of service are entitled to receive an unreduced annuity benefit at age 67 or a reduced annuity benefit at age 62 with at least 10 years of service. The annuity shall be reduced by ½ of 1% percent for each month that the employee is under age 67. Final average salary is calculated using salary from the eight highest consecutive years within the last 10 years of service preceding retirement. Pensionable salary is limited to $114,952 in 2019 and $113,645 in 2018, increased annually by the lesser of 3% or 50% of the percentage change in the Consumer Price Index-Urban (CPI-U), for the 12 months ending each preceding September, but not less than zero.

Tier 3: Employees with at least 10 years of service are entitled to receive an unreduced annuity benefit at age 65 or a reduced annuity benefit at age 60 with at least 10 years of service. The annuity shall be reduced by ½ of 1% for each month that the employee is under age 65. Final average salary is calculated using salary from the eight highest consecutive years within the last 10 years of service preceding retirement. Pensionable salary is limited to $114,952 in 2019 and $113,645 in 2018, increased annually by the lesser of 3% or 50% of the percentage change in the CPI-U, for the 12 months ending each preceding September, but not less than zero.

Post Retirement Increases:

Tier 1: Employee annuitants are eligible to receive an increase of 3% of the current annuity beginning the January of the year of the first payment date following the earlier of 1) the later of the third anniversary of retirement and age 53 and 2) the later of the first anniversary of retirement and age 60, and each year thereafter.

Tier 2: Employee annuitants are eligible to receive an increase based on the original annuity equal to the lesser of 3% or ½ of the annual unadjusted percentage increase in the CPI-U (but not less than zero) beginning the January of the first payment date following the later of 1) age 67 and 2) the second anniversary of retirement.

Tier 3: Employee annuitants are eligible to receive an increase based on the original annuity equal to the lesser of 3% or ½ of the annual unadjusted percentage increase in the CPI-U (but not less than zero) beginning the January of the first payment date following the later of 1) age 65 and 2) the second anniversary of retirement.

Spousal Annuity:

Tier 1: The eligible surviving spouse is entitled to a spousal annuity equal to 50% of the pension the member had earned at the date of death or a minimum annuity of $800.

Tier 2 and 3: The surviving spouse is entitled to a spousal annuity equal to 66⅔% of the pension the member had earned at the date of death.

Automatic Increase in Spousal Annuity:

Tier 1: There is no increase in annuity for spousal annuities.

Tier 2 and 3: The spousal annuity increase is the lesser of 3% or 50% of the percentage change in the CPI-U for the 12 months ending each preceding September (but not less than zero) and is applied to the original spousal annuity amount. If the CPI-U decreases or is zero, no increase is paid. The annual increase in spouse annuity starts on the January 1st occurring on or after 1) the start date of the spouse annuity if the deceased member was in receipt of annuity at death or 2) the first anniversary of the spouse annuity start date.

Child's Annuity:

Under Tiers 1, 2 and 3, annuities are provided for unmarried children of a deceased member who are under the age of 18, if the child was born, or *in esse*, or legally adopted. The child's annuity is $220 a month when there is a surviving spouse or $250 a month when there is no surviving spouse.

Duty Disability:

Under Tiers 1, 2 and 3, an employee who becomes disabled as the result of an injury incurred in the performance of any act of duty, is entitled to receive a duty disability benefit in the amount equal to 75% of annual salary at the time of injury, reduced by any benefits received by the employee under the provisions of the Workers' Compensation Act.

Ordinary Disability:

Under Tiers 1, 2 and 3, an employee who becomes disabled as the result of any cause other than an injury incurred in the performance of an act of duty, is entitled to receive an ordinary disability benefit in the amount equal to 50% of annual salary as of the last day worked. An employee can receive ordinary disability for a period equal to ¼ of his service credits up to a maximum of 5 years.

Refunds:

Tier 1: A member may take a refund if he withdraws from service and is under the age of 55 (with any length of service) or withdraws between the ages of 55 and 60 with less than 10 years of service.

Tier 2 and 3: A member may take a refund if he withdraws from service before the age of 62 (with any length of service) or withdraws with less than 10 years of service regardless of age.

NOTE 3. INVESTMENTS

Fair Value Measurements

The Plan categorizes the fair value measurements of its investments based on the hierarchy established by the U.S. generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure an asset's fair value: Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; and Level 3 inputs are significant unobservable inputs. Investments that are measured at fair value using the net asset value (NAV) per share (or its equivalent) as a practical expedient are not classified in the fair value hierarchy.

Equity securities and investment derivative investments classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets issued by pricing vendors.

Fixed income securities and collateral from securities lending classified in Level 2 of the fair value hierarchy are valued using either a bid evaluation or a matrix pricing technique maintained by the various pricing vendors. Bid evaluations may include market quotations, yields, maturities, call features and ratings. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices.

Equity and fixed income securities classified in Level 3 of the fair value hierarchy are securities whose stated market price is unobservable by the marketplace. Many of these securities are priced by the issuers of industry groups. Fair value is defined as the quoted market value on the last trading day of the period. These prices are obtained from various pricing sources by the Plan's custodian bank.

NOTE 3. INVESTMENTS (CONTINUED)

The following is a summary of the inputs used as of December 31, 2019, in valuing investments carried at fair value:

	December 31, 2019			
Description	Total	Quoted Market Prices for Asset (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Equities				
Common stock	$ 578,144,726	$ 577,907,706	$ 200,496	$ 36,524
Preferred stock	2,114,065	2,104,067	-	9,998
Stapled securities	354,619	354,619	-	-
Exchange-traded fund	3,810,634	3,810,634	-	-
Other equity assets	1,951,869	1,951,869	-	-
Fixed income	-			
Government bonds	41,534,782	-	41,534,782	-
Government agencies	8,599,225	-	8,599,225	-
Municipal/Provincial bonds	9,035,171	-	9,035,171	-
Corporate bonds	93,282,363	-	93,282,363	-
Government mortgage backed securities	36,169,004	-	36,169,004	-
Government-issued commercial mortgage-backed	1,721,083	-	1,721,083	-
Commercial mortgage-backed	5,510,653	-	5,510,653	-
Asset backed securities	5,729,485	-	5,729,485	-
Non-government backed CMO’s	1,842,290	-	1,842,290	-
Index linked government bonds	9,514,544	-	8,829,298	685,246
Invested securities lending collateral	46,815,031	-	46,815,031	-
Subtotal	846,129,544	$ 586,128,895	$ 259,268,881	$ 731,768
Investments that calculate net asset value				
Equity funds	42,412,408			
Fixed income funds	8,324,103			
Hedge funds	88,770,368			
Private markets funds	33,215,323			
Real estate funds	121,407,590			
Subtotal	294,129,792			
Cash and short-term investments	40,451,166			
Subtotal	1,180,710,502			
Liabilities				
Derivatives - net	(1,677,355)	$ (1,677,355)	$ -	$ -
Securities lending cash collateral	(46,815,031)	-	(46,815,031)	-
Subtotal	(48,492,386)	$ (1,677,355)	$ (46,815,031)	$ -
Total investments at fair value - net	$ 1,132,218,116			

NOTE 3. INVESTMENTS (CONTINUED)

The following is a summary of the inputs used as of December 31, 2018, in valuing investments carried at fair value:

	December 31, 2018			
Description	Total	Quoted Market Prices for Asset (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Equities				
Common stock	$ 459,757,412	$ 459,717,173	$ -	$ 40,239
Preferred stock	1,625,406	1,612,712	-	12,694
Stapled securities	724,966	724,966	-	-
Exchange-traded fund	900,276	900,276	-	-
Rights and warrants	3,298	3,298	-	-
Other equity assets	1,633,550	1,633,550	-	-
Fixed income				
Government bonds	35,681,074	-	35,681,074	-
Government agencies	6,110,338	-	6,110,338	-
Municipal/Provincial bonds	8,418,231	-	8,418,231	-
Corporate bonds	79,446,781	-	79,446,781	-
Government mortgage backed securities	37,625,799	-	37,625,799	-
Government-issued commercial mortgage-backed	1,436,842	-	1,436,842	-
Commercial mortgage-backed	4,336,400	-	4,336,400	-
Asset backed securities	8,490,521	-	8,490,521	-
Non-government backed CMO's	1,243,984	-	1,243,984	-
Index linked government bonds	11,640,819	-	7,456,612	4,184,207
Derivatives - net	36,722	36,722	-	-
Invested securities lending collateral	32,279,613	-	32,279,613	-
Subtotal	691,392,032	$ 464,628,697	$ 222,526,195	$ 4,237,140
Investments that calculate net asset value				
Equity funds	43,997,789			
Fixed income funds	62,093,221			
Global asset allocation funds	30,704,570			
Hedge funds	85,604,723			
Private markets funds	27,062,565			
Real estate funds	121,113,142			
Subtotal	370,576,010			
Cash and short-term investments	26,101,699			
Subtotal	1,088,069,741			
Liabilities				
Securities lending cash collateral	(32,279,613)	$ -	$ (32,279,613)	$ -
Total investments at fair value - net	$ 1,055,790,128			

NOTE 3. INVESTMENTS (CONTINUED)

Fair Value of Investments that Calculate Net Asset Value

Authoritative guidance on fair value measurements permits the Plan to measure the fair value of an investment entity that does not have a readily determinable fair value based upon the NAV per share or its equivalent of the investment.

The following table summarizes the Plan's investments in certain entities that calculate net asset value per share as fair value measurement as of December 31, 2019 and 2018:

2019	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Equity funds	$ 42,412,408	$ -	As needed	Daily - Monthly
Fixed income funds	8,324,103	-	As needed	Daily
Hedge funds	88,770,368	402,460	As needed	30 - 95 Days or Not eligible
Private markets funds	33,215,323	31,717,785	N/A	Not eligible
Real estate funds	121,407,590	14,084,881	As needed / N/A	30 - 45 Days or Not eligible
	$ 294,129,792	$ 46,205,126		

2018	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Equity funds	$ 43,997,789	$ -	As needed	Daily - Monthly
Fixed income funds	62,093,221	-	As needed	Daily - 15 Days
Global asset allocation funds	30,704,570	-	As needed	Monthly
Hedge funds	85,604,723	402,460	As needed	60 - 95 Days or Not eligible
Private markets funds	27,062,565	27,523,261	N/A	Not eligible
Real estate funds	121,113,142	8,806,321	As needed / N/A	30 - 45 Days or Not eligible
	$ 370,576,010	$ 36,732,042		

Equity funds. Four funds as of December 31, 2019. One fund invests in Indian shares, one fund invests in Central and Eastern Europe equity and equity-linked securities, one fund invests in emerging market equities and one fund invests in emerging market small cap equities. Five funds as of December 31, 2018. Two funds invest in Indian shares, one fund invests in Central and Eastern Europe equity and equity-linked securities, one fund invests in emerging market equities and one fund invests in emerging market small cap equities.

Fixed income funds. Two funds as of December 31, 2019. One fund invests in U.S. dollar-denominated, High-Yield Bonds and one fund invests in senior floating rate loans. Five funds as of December 31, 2018. The fixed income funds invest in a variety of fixed income markets through various investments.

Global asset allocation funds. None as of December 31, 2019 and two funds as of December 31, 2018. The global asset allocation funds invest in a select group of underlying funds that implement several different investment strategies and invest in a variety of markets through a combination of sub-portfolios, commingled vehicles and direct-investments in securities.

NOTE 3. INVESTMENTS (CONTINUED)

Hedge funds. Six funds as of December 31, 2019. Five hedge funds invest in a select group of underlying managers that implement a number of different alternative investment strategies and invest in a variety of markets through limited partnerships, limited liability companies and other investment entities. One hedge fund invests in or sells short securities, typically of fixed income securities and employs a long-short credit strategy. Six funds as of December 31, 2018. The hedge funds invest in a select group of underlying managers that implement a number of different alternative investment strategies and invest in a variety of markets through limited partnerships, limited liability companies and other investment entities.

Private markets funds. Twelve funds as of December 31, 2019 and Eleven funds as of December 31, 2018. The private markets funds comprise limited partnership interests in equity or debt securities of privately held companies. Private markets funds are not eligible for redemption.

Real estate funds. Ten funds as of December 31, 2019. The real estate funds comprise core, value-add, and opportunistic real estate funds. Real estate funds that are closed-end funds, eight out of the ten real estate funds, are not eligible for redemption. The remaining two funds are open-ended funds with 30 days' and 45 days' notice for redemption. Ten funds as of December 31, 2018. The real estate funds comprise core, value-add, and opportunistic real estate funds. Real estate funds that are closed-end funds, eight out of the ten real estate funds, are not eligible for redemption. The remaining two funds are open-ended funds with 30 days' and 45 days' notice for redemption.

Investment Policies, Asset Allocation and Money Weighted Rate of Return

Investments are governed by the Statutes. The prudent person rule, which establishes a standard of care for all fiduciaries, is an important aspect of the Statutes. The prudent person rule states that fiduciaries must discharge their duties with the care, skill, prudence and diligence that a prudent person acting in a like capacity and familiar with such matters would use under conditions prevailing at the time. The Plan is authorized to invest in bonds, notes, certificates of indebtedness, mortgage notes, real estate, stocks, shares, debentures, or other obligations or securities as set forth in the Statutes.

The Plan's policy in regard to the allocation of invested assets is established and may be amended by the Board. It is the policy of the Board to pursue an investment strategy that reduces risk through the prudent diversification of the portfolio across a broad selection of distinct asset classes.

NOTE 3. INVESTMENTS (CONTINUED)

The following was the Board's adopted asset allocation as of December 31, 2019.

Asset Class	Target
U.S. equity	25.0%
Non U.S. equity	20.0%
Global low volatility equity	5.0%
Fixed income	20.0%
Private debt	3.0%
Private equity	4.0%
Real estate	10.0%
Private real assets	3.0%
Hedge funds	10.0%
	100.0%

For the year ended December 31, 2019, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 17.8%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Investment Risk Factors

There are many factors that can affect the value of investments. Some, such as custodial credit risk, concentration of credit risk, interest rate risk, and foreign currency risk may affect both equity and fixed income securities. Equity securities respond to such factors as economic conditions, individual company earnings performance, and market liquidity, while fixed income securities are particularly sensitive to credit risk and risk associated with changes in interest rates.

NOTE 3. INVESTMENTS (CONTINUED)

Investment Summary

All of the Plan's financial instruments are consistent with the permissible investments outlined in the Statutes. The following table presents the composition of investments, by investment type, as of December 31, 2019 and 2018. Individual investments that represent 5% or more of the Plan's net position restricted for pension benefits are separately identified.

	2019	2018
Cash and short-term investments	$ 40,451,166	$ 26,101,699
Equities		
U.S. equities	323,273,547	244,523,972
Foreign equities	263,102,366	220,120,936
Equity funds	42,412,408	43,997,789
Total equities	628,788,321	508,642,697
Fixed income		
U.S. Government obligations and municipal bonds	84,975,873	77,986,489
U.S. corporate bonds	49,293,702	47,953,149
Foreign fixed income	78,669,025	68,491,151
Fixed income funds	8,324,103	62,093,221
Total fixed income	221,262,703	256,524,010
Private markets	33,215,323	27,062,565
Real estate	121,407,590	121,113,142
Hedge funds	88,770,368	85,604,723
Global asset allocation funds		
Wellington CTF Opportunistic Investment Fund	-	30,704,570
Forward currency contacts	-	36,722
Security lending cash collateral	46,815,031	32,279,613
Subtotal	1,180,710,502	1,088,069,741
Liabilities		
Derivatives - net	(1,677,355)	-
Securities lending cash collateral	(46,815,031)	(32,279,613)
Subtotal	(48,492,386)	(32,279,613)
Total invesments at fair value - net	$ 1,132,218,116	$ 1,055,790,128

Short-term investments include commercial paper or notes having maturity of less than 90 days or pooled short-term investment funds managed by Northern Trust. Under the terms of the investment agreement for these funds, Northern Trust may invest in a variety of short-term investment securities.

NOTE 3. INVESTMENTS (CONTINUED)

Custodial Credit Risk

Custodial credit risk for deposits is the risk that in the event of a financial institution failure, the Plan's deposits may not be returned to it. The Plan does not have a formal deposit policy for custodial credit risk. As of December 31, 2019 and 2018, the following investments were uninsured and unregistered, with securities held by the counterparty or by its trust department or agent but not in the Plan's name.

	2019	2018
Amount exposed to custodial credit-risk		
Investment in foreign currency	$ 1,306,488	$ 540,003

Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations to pay interest or principal in a timely manner, or that negative perception of the issuer's ability to make payments will cause a decline in the security's price. U.S. Government obligations or obligations explicitly guaranteed by the U.S. Government are not considered to have credit risk and do not require disclosure of credit quality.

The investment portfolio of the Plan is managed by professional investment management firms. These firms are required to maintain diversified portfolios. The Plan does not have a formal policy on concentration of credit risk. Each investment manager complies with risk management guidelines individually assigned to them as part of their Investment Management Agreement.

A bond's credit quality is a standard used by the investment community to assess the issuer's ability to make interest payments and to ultimately make principal payments. Credit quality is evaluated by one of the independent bond-rating agencies, for example Moody's Investor Service (Moody's) or Standard and Poor's (S&P). In the rating agency's opinion, the lower the rating, the greater the chance that the bond issuer will default or fail to meet its payment obligations.

NOTE 3. INVESTMENTS (CONTINUED)

The following table presents the credit risk profile, based on Moody's Investor Service for fixed income securities held by the Plan as of December 31, 2019 and 2018.

Quality Rating	2019	2018
Aaa	$ 47,991,812	$ 40,168,618
Aa	10,676,947	9,595,808
A	19,532,609	21,468,279
Baa	49,334,914	46,008,410
Ba	19,932,283	19,621,525
B	9,209,489	6,288,990
Caa	1,470,599	633,805
Not rated or unavailable	17,538,330	11,986,710
Total credit risk debt - securities	175,686,983	155,772,145
Guaranteed by U.S. Government	37,251,617	38,658,644
Fixed income funds - not rated	8,324,103	62,093,221
Total fixed income	$ 221,262,703	$ 256,524,010

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. The price of a debt security typically moves in the opposite direction of the change in interest rates. The Plan does not have a formal investment policy that limits investment maturities as a means of managing its exposure to interest rate risk. However, the investment managers have diversified the portfolio to reduce the impact of losses in an individual investment and typically align the portfolio's duration with that of the benchmark.

Interest Rate Risk (continued)

At December 31, 2019 and 2018, the following table shows the investments by investment type and maturity.

	December 31, 2019					
Investment Type	Fair Value	1 Year or Less	1+ to 6 Years	6+ to Years	10+ Years	Variable
Asset backed securities	$ 5,729,485	$ 671,019	$ 1,636,238	$ 841,751	$ 2,580,477	$ -
Commercial mortgage backed	5,510,653	-	-	-	5,510,653	-
Corporate bonds	93,282,363	783,396	45,749,477	28,209,137	18,540,353	-
Fixed income funds	8,324,103	-	-	-	-	8,324,103
Government agencies	8,599,225	812,008	3,218,408	2,285,478	2,283,331	-
Government bonds	41,534,782	601,313	17,778,235	8,869,700	14,285,534	-
Government mortgage backed	36,169,004	311	256	2,084,694	29,857,119	4,226,624
Government issued commercial mortgage backed	1,721,083	96,056	469,252	687,999	467,776	-
Index linked government bonds	9,514,544	-	5,531,342	1,491,294	2,491,908	-
Municipal bonds	9,035,171	-	366,555	3,513,429	5,155,187	-
Non-government backed CMO's	1,842,290	6,185	24,867	-	1,811,238	-
Total fixed income	$ 221,262,703	$ 2,970,288	$ 74,774,630	$ 47,983,482	$ 82,983,576	$ 12,550,727

	December 31, 2018					
Investment Type	Fair Value	1 Year or Less	1+ to 6 Years	6+ to Years	10+ Years	Variable
Asset backed securities	$ 8,490,521	$ -	$ 3,830,575	$ 599,764	$ 4,060,182	$ -
Commercial mortgage backed	4,336,400	-	-	-	4,336,400	-
Corporate bonds	79,446,781	901,215	40,463,189	23,259,058	14,823,319	-
Fixed income funds	62,093,221	-	-	-	-	62,093,221
Government agencies	6,110,338	-	4,142,732	381,001	1,586,605	-
Government bonds	35,681,074	1,627,324	16,075,008	8,035,836	9,942,906	-
Government mortgage backed	37,625,799	-	5,020	194,377	29,880,777	7,545,625
Government issued commercial mortgage backed	1,436,842	-	328,305	647,181	461,356	-
Index linked government bonds	11,640,819	-	-	8,524,065	3,116,754	-
Municipal bonds	8,418,231	-	519,499	3,065,102	4,833,630	-
Non-government backed CMO's	1,243,984	8,040	75,914	-	1,160,030	-
Total fixed income	$ 256,524,010	$ 2,536,579	$ 65,440,242	$ 44,706,384	$ 74,201,959	$ 69,638,846

Investment Results

During 2019 and 2018, net realized gains (losses) on investments sold, reflecting the difference between the proceeds received and cost value of securities sold, were $38,267,190 gain and $93,796,541 loss, respectively. These amounts are included in the net appreciation (depreciation) in fair value of investments as reported on the Statements of Changes in Fiduciary Net Position. The calculation of realized gains and losses is independent of the calculation of net appreciation in the fair value of the Plan's investments. Investments purchased in a previous year and sold in the current year results in their realized gains and losses being reported in the current year and their net appreciation in Plan assets being reported in both the current and the previous year(s).

NOTE 3. INVESTMENTS (CONTINUED)

Foreign Currency Risk

The international portfolio is constructed on the principles of diversification, quality, growth and value. Risk of loss arises from changes in currency exchange rates. While not having a formal investment policy governing foreign currency risk, the Plan does manage its exposure to fair value loss by requiring the international securities managers to maintain diversified portfolios to limit foreign currency and security risk.

The Plan's exposure to foreign currency risk as of December 31, 2019 and 2018, is presented in the following table.

	2019	%	2018	%
Australian dollar	$ 8,768,187	3.9%	$ 10,596,108	5.6%
Brazilian real	3,013,051	1.3	3,301,872	1.7
Canadian dollar	9,900,200	4.4	8,850,481	4.7
Swiss franc	8,674	-	701,578	0.4
Chilean Peso	352,517	0.2	369,278	0.1
HK offshore Chinese Yuan Renminbi	551,870	0.2	867,679	0.5
Colombian peso	505,994	0.2	291,627	0.2
Danish krone	7,479,226	3.3	5,742,059	3.0
Euro	61,830,559	27.5	46,958,438	24.8
British pound sterling	21,982,973	9.8	23,161,985	12.2
Hong Kong dollar	23,891,142	10.6	20,942,511	11.1
Hungarian forint	412,111	0.2	405,723	0.2
Indonesian rupiah	3,411,604	1.5	3,228,204	1.7
New Israeli shekel	1,035,691	0.5	1,219,602	0.6
Japanese yen	52,348,231	23.3	36,810,645	19.5
South Korean won	4,150,778	1.8	4,274,087	2.3
Mexican peso	2,360,245	1.0	2,464,950	1.3
Malaysian ringgit	1,131,293	0.5	1,052,434	0.6
Norwegian krone	7,733,908	3.4	4,208,964	2.2
New Zealand dollar	(2,105,368)	(0.9)	(3,665,263)	(1.9)
Peruvian nuevo sol	188,459	0.1	214,218	0.1
Philippine peso	237,624	0.1	174,546	0.1
Polish zloty	878,090	0.4	916,135	0.5
Qatari riyal	223,994	0.1	480,356	0.3
Russian ruble	95	-	-	-
Swedish krona	7,637,246	3.4	8,550,314	4.5
Singapore dollar	2,483,577	1.1	2,407,084	1.3
Thai baht	1,270,491	0.6	2,113,570	1.1
Turkish lira	507,570	0.2	450,860	0.2
Vietnamese dong	225,665	0.1	190,103	0.1
South African rand	2,737,015	1.2	1,893,976	1.0
Total	$ 225,152,712	100.0%	$ 189,174,124	100.0%

Derivatives

The Plan's investment managers may enter into derivative transactions as permitted by their guidelines. A derivative financial instrument is an investment whose payoff depends on the value of an underlying, such as bond or stock prices, a market index, or commodity prices. Derivative financial instruments involve, to varying degrees, credit risk and market risk. Credit risk is the possibility that a loss may occur because a party to a transaction fails to perform according to terms. The Plan's managers seek to control this risk through counterparty credit evaluations and approvals, counterparty credit limits and exposure monitoring procedures. Market risk is the possibility that a change in interest or currency rates will cause the value of a financial instrument to decrease or become more costly to settle. The market risk associated with derivatives, the prices of which are constantly fluctuating, is regulated by imposing strict limits as to the types, amounts, and degree of risk that investment managers may undertake.

During the year, the Plan's derivative investments included foreign currency forward contracts, financial futures and swaps. Foreign currency forward contracts are used to hedge against the currency risk in the Plan's foreign stock and fixed income security portfolios. Financial futures are used to improve yield, adjust the duration of the fixed income portfolio, or to hedge changes in interest rates. Swaps are used to hedge duration, fine tune interest rate strategy and facilitate gaining exposure to the asset class or hedging cash bond exposure in a cost efficient manner.

The following table summarizes the derivatives held within the Plan's investment portfolio as of December 31, 2019 and 2018:

	2019		2018	
Derivative Type	Notional Amount	Fair Value	Notional Amount	Fair Value
Hedging derivative instruments				
Foreign currency forward contracts purchased	$ -	$ 111,595,860	$ -	$ 151,091,416
Foreign currency forward contracts sold	-	(112,440,788)	-	(151,054,694)
Total hedging derivative instruments	-	(844,928)	-	36,722
Investment derivative instruments				
Futures				
Fixed income	32,545,810	-	42,520,705	-
Cash and cash equivalent	742,101	-	31,355	-
Total futures	33,287,911	-	42,552,060	-
Swaps				
Interest rate swap	-	(10,399)	-	-
Credit swap	-	(822,028)	-	-
Total swaps	-	(832,427)	-	-
Total investment derivative instruments	33,287,911	(832,427)	42,552,060	-
Total	$ 33,287,911	$ (1,677,355)	$ 42,552,060	$ 36,722

NOTE 3. INVESTMENTS (CONTINUED)

Foreign currency forward contracts are agreements to buy or sell a specific amount of a specific currency at a specified delivery or maturity date for an agreed upon price. The gain or loss on forward contracts is recognized as deferred inflows/outflows on the Statements of Fiduciary Net Position until the contract is closed or is sold at which time a gain or loss is recognized in the Statements of Changes in Fiduciary Net Position. The counterparties to the foreign currency forward contracts are banks which are rated A, or above, by rating agencies. The fair value of forward contracts outstanding at December 31, 2019 and 2018 is as follows:

	Fair Value	
Currency	2019	2018
Foreign currency exchange purchases:		
Australian dollar	$ 3,854,322	$ 7,635,237
Brazilian real	-	240,041
Canadian dollar	4,379,407	5,021,921
Swiss franc	846,305	4,887,276
Chilean peso	3	-
Euro	5,672,940	10,070,846
British pound sterling	1,633,828	6,928,056
Indonesian rupiah	-	50,656
Japanese yen	10,437,044	9,304,983
South Korea won	974,254	-
Mexican peso	529,815	508,400
Norwegian krone	8,917,124	6,485,920
New Zealand dollar	2,082,235	4,395,345
Russian ruble	95	-
Swedish krona	3,432,688	6,520,202
Turkish lira	-	261,368
United States dollar	68,647,089	88,597,570
South African rand	188,711	183,595
Total purchases	$ 111,595,860	$ 151,091,416

NOTE 3. INVESTMENTS (CONTINUED)

Currency	Fair Value 2019	Fair Value 2018
Foreign currency exchange sales:		
Australian dollar	$ (6,243,208)	$ (7,149,369)
Brazilian real	(93)	-
Canadian dollar	(6,120,577)	(6,465,754)
Swiss franc	(7,696,522)	(7,784,199)
Euro	(23,799,257)	(25,393,073)
British pound sterling	(7,300,815)	(9,433,852)
Hungarian forint	(27,755)	-
Indonesian rupiah	-	(16,232)
Japanese yen	(4,614,159)	(11,545,268)
South Korea won	(1,310,271)	(248,964)
Mexican peso	(531,359)	(527,244)
Norwegian krone	(3,158,296)	(4,101,547)
New Zealand dollar	(6,027,668)	(9,735,899)
Polish zloty	(206,580)	(176,557)
Swedish krona	(3,073,162)	(5,492,388)
Turkish lira	-	(261,530)
United States dollar	(42,140,427)	(62,563,616)
South African rand	(190,639)	(159,202)
Total sales	$ (112,440,788)	$ (151,054,694)

Financial futures are similar to forward contracts, except futures contracts are standardized and traded on organized exchanges. As the market value of the underlying assets vary from the original contract price, a gain or loss is recognized in the Statements of Changes in Fiduciary Net Position and is settled through the clearinghouse.

Rights and warrants allow the Plan's investment managers to replicate any underlying security they wish to hold (sell) in the portfolio. Rights and warrants provide the holder with the right, but not the obligation, to buy or sell a company's stock at a predetermined price. Rights usually expire after a few weeks and warrants can expire from one to several years. These investments are reported within the equity's classification.

NOTE 3. INVESTMENTS (CONTINUED)

The following table summarizes the changes in fair value, which were recognized as income in the Plan's Statements of Changes in Fiduciary Net Position for the year ended December 31, 2019 and 2018:

Derivative Type	Changes in Fair Value 2019	2018
Foreign currency forward contracts	$ 419,238	$ 1,955,377
Futures	(1,392,621)	136,581
Rights/warrants	7,659	(4,598)
Swaps	(224,107)	-
Total	$ (1,189,831)	$ 2,087,360

NOTE 4. SECURITIES LENDING

The Statutes and the Board permit the Plan to lend its securities to broker-dealers and other entities with a simultaneous agreement to return the collateral for the same securities in the future. Deutsche Bank, acting as lending agent, lends securities for collateral in the form of cash, U.S. Government obligations and Non-U.S. sovereign debt securities equal to 102% of the fair value of domestic securities and foreign securities that are denominated in the same currency as the collateral provided plus accrued interest and 105% of the fair value of foreign securities that are not denominated in the same currency as the collateral provided plus accrued interest.

The Plan receives 85% of the net revenue derived from the securities lending activities, and the lending agent receives the remainder of the net revenue.

The Plan is currently not restricted as to the type of securities it may loan. The Plan does not have the right to sell or pledge securities received as collateral unless the borrower defaults.

The average term of securities loaned was 87 days at December 31, 2019 and 90 days at December 31, 2018; however, any loan may be terminated on demand by either the Plan or the borrower. Cash collateral may be invested in a short-term investment pool, which had an average weighted maturity of 38 days as of December 31, 2019 and an average weighted maturity of 30 days as of December 31, 2018. Cash collateral may also be invested in term loans, in which the investments (term loans) match the term of the securities loaned. These loans can be terminated on demand by either the lender or the borrower.

At December 31, 2019 and 2018, the Plan had no credit risk exposure to borrowers because the amounts owed to the borrowers exceeded the amounts owed to the Plan. At December 31, 2019 and 2018, the fair value of securities loaned was as follows:

	2019	2018
Equities	$ 39,860,542	$ 26,560,848
Fixed income	14,784,396	8,498,310
Total	$ 54,644,938	$ 35,059,158

NOTE 4. SECURITIES LENDING (CONTINUED)

At December 31, 2019 and 2018, the securities loaned were collateralized as follows:

	2019	2018
Collateralized by cash	$ 46,815,031	$ 32,279,613
Collateralized by other than cash	9,142,703	3,752,654
Total	$ 55,957,734	$ 36,032,267

During 2019 and 2018, there were no losses due to default of a borrower or the lending agent. The contract with the Plan requires the lending agent to indemnify the Plan if borrowers fail to return the securities (and if the collateral is inadequate to replace the securities lent) or fail to pay the Plan for income distributions by the issuers of securities while the securities are on loan.

NOTE 5. MORTGAGE BACKED SECURITIES

The Plan invests in mortgage-backed securities, representing interests in pools of mortgage loans, as part of its interest rate risk management strategy. The mortgage-backed securities are not used to leverage investments in fixed income portfolios. The mortgage-backed securities held by the Plan were guaranteed by federally sponsored agencies, such as: Government National Mortgage Association, Federal National Mortgage Association and Federal Home Loan Mortgage Corporation.

The financial instruments are carried at fair value and are included in investments on the Statements of Fiduciary Net Position. The gain or (loss) on financial instruments is recognized and recorded on the Statements of Changes in Fiduciary Net Position as part of investment income.

NOTE 6. DEFERRED COMPENSATION PLAN

The Plan offers its employees a deferred compensation plan established in accordance with Internal Revenue Code Section 457. The deferred compensation plan, which is funded through employee contributions, is available to all Plan employees and permits them to defer a portion of their salary until future years. The deferred compensation plan is managed by a third-party administrator and participation by employees is optional. The assets of the deferred compensation plan are placed in trust with the third party for the exclusive benefit of the participants and their beneficiaries and are not considered assets of the Plan.

NOTE 7. SUMMARY OF EMPLOYER FUNDING POLICIES

For years prior to 2018, the City shall levy a tax annually which, when added to the amounts deducted from the salaries of the employees or otherwise contributed by them, will be sufficient for the requirements of the Plan. The tax will produce an amount that does not exceed the amount of contributions by the employees to the Plan made in the calendar year two years prior to the year for which the annual applicable tax is levied, multiplied by 1.00. Beginning in payment year 2018, the City's required annual contribution to the Plan shall be: for 2018, $36,000,000; for 2019, $48,000,000; for 2020, $60,000,000; for 2021, $72,000,000; and for 2022, $84,000,000. For payment years 2023 through 2058, the City's required annual contribution to the Plan shall be the amount determined by the Plan to be equal to the sum of the City's portion of projected normal cost for that fiscal year plus an amount determined on a level percentage of applicable employee payroll basis that is sufficient to bring the total actuarial assets of the Plan up to 90% of the total actuarial liabilities of the Plan by the end of 2058. For payment years after 2058, the City's required annual contribution to the Plan shall be equal to the amount, if any, needed to bring the total actuarial assets of the Plan up to 90% of the total actuarial liabilities of the Plan by the end of the year.

When the balance of the prior service reserve equals its liabilities (including in addition to all other liabilities, the present value of all annuities, present or prospective, according to applicable mortality tables and rates of interest), the City shall cease to contribute the amounts to provide prior service annuities and other annuities and benefits.

The actuarial valuations of the Plan as of December 31, 2019 (2020 ADC) and as of December 31, 2018 (2019 ADC) indicated that a minimum annual contribution was required by the City to maintain the Plan on a minimum valuation basis. The recommended minimum annual contribution based on an annual payroll of $211,607,883 for 2,662 members for 2020 and $211,482,201 for 2,715 active members for 2019 is computed as follows:

	2020	2019
Normal cost	$ 40,393,086	$ 40,864,296
30 year level dollar amortization of unfunded liability payable Mid-year	123,690,090	117,081,193
Interest adjustment for May 1st payment date	8,827,053	8,408,678
Total minimum contribution	172,910,229	166,354,167
Less estimated plan member contributions	(17,116,407)	(17,944,478)
Actuarially Determined Contribution (ADC)	$ 155,793,822	$ 148,409,689

NOTE 8. NET PENSION LIABILITY OF THE PLAN

The components of the net pension liability of the Plan at December 31, 2019 were as follows:

Total pension liability	$ 2,775,649,498
Plan fiduciary net position	1,187,549,469
Net pension liability	$ 1,588,100,029
Plan fiduciary net position as a percentage of total pension liability	42.78%

Actuarial Assumptions - The total pension liability was determined by an actuarial valuation as of December 31, 2019, using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.25 percent
Salary increases	3.00 percent wage inflation plus a service-based increase in the first 9 years
Investment rate of return	7.25 percent, net of investment expense, including inflation

Actuarial Assumptions - The total pension liability was determined by an actuarial valuation as Post-retirement mortality rates were based on scaling factors of 117% for males, and 102% for females of the RP-2014 Blue Collar Healthy Annuitant mortality table, sex distinct, with generational mortality improvement using MP-2017 2-dimensional mortality improvement scales. No adjustment is made for post-disabled mortality.

Pre-retirement mortality rates were based on scaling factors of 109% for males, and 103% for females of the RP-2014 Blue Collar Employee mortality table, sex distinct, with generational mortality improvement using MP-2017 2-dimensional mortality improvement scales.

The actuarial assumptions used in the December 31, 2019 valuation were based on the results of an actuarial experience study for the period of January 1, 2012 through December 31, 2016.

The long-term expected rate of return on pension plan investments was determined by taking into consideration the Plan's target asset allocation along with long-term capital markets assumptions—estimated expected returns, volatilities and correlations among different asset classes—from a variety of nationally known investment consulting firms. Each set of capital markets assumptions was used to calculate an estimated geometric real rate of return for the Plan's target asset allocation, which was then converted to a nominal rate based on the Plan's inflation assumption, as well as an estimate of portfolio volatility. An average of the expected return and volatility figures across all sets of capital markets assumptions was used to calculate an aggregate distribution in order to determine an acceptable range of expected rates of return. The long-term expected rate of return on pension plan investments falls within this range.

NOTE 8. NET PENSION LIABILITY OF THE PLAN (CONTINUED)

Best estimates of geometrically determined real rates of return for each major asset class included in the Plan's target asset allocation as of December 31, 2019, utilizing the assumed rate of inflation of 2.25%, are summarized in the following table:

Asset Class	Long-term Expected Real Rate of Return
U.S. equity	5.3%
Non U.S. equity	5.3
Global low volatility equity	4.4
Fixed income	-0.3
Hedge funds	2.8
Private debt	7.6
Private equity	8.8
Real estate	3.7
Private real assets	5.1

Single Discount Rate

A Single Discount Rate of 7.00% was used to measure the total pension liability. This Single Discount Rate was based on an expected rate of return on pension plan investments of 7.25% and a municipal bond rate of 2.75%. The projection of cash flows used to determine this Single Discount Rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made under the statutory funding policy. Based on these assumptions, the pension plan's fiduciary net position and future contributions were sufficient to finance the benefit payments only through the year 2073. As a result, the long-term expected rate of return on pension plan investments was applied to projected benefit payments through the year 2073, and the municipal bond rate was applied to all benefit payments after that date.

Regarding the sensitivity of the net pension liability to changes in the Single Discount Rate, the following presents the plan's net pension liability, calculated using a Single Discount Rate of 7.00%, as well as what the plan's net pension liability would be if it were calculated using a Single Discount Rate that is 1-percentage-point lower or 1-percentage-point higher:

Sensitivity of Net Pension Liability to the Single Discount Rate Assumption			
	1% Decrease 6.00%	Current Single Discount Rate Assumption 7.00%	1% Increase 8.00%
Plan's net pension liability	$ 1,918,388,452	$ 1,588,100,029	$ 1,311,383,618

NOTE 9. RESERVES FOR ACTUARIAL LIABILITIES

The reserves for actuarial liabilities are based on an annual valuation submitted by the Plan's consulting actuary. The annual actuarial valuation establishes the reserves required for various statutory liabilities which arise from pension benefit schedules that are part of the current pension code legislation. Market value of net assets held in trust for pension benefits as of December 31, 2019 and 2018, were comprised of the following Plan surplus (deficit) balances:

	2019	2018
Prior Service Fund	$ 1,618,252,099	$ 1,585,722,700
City Contribution Fund	290,976,715	284,618,598
Salary Deduction Fund	291,362,121	284,715,160
Annuity Payment Fund and Reserve	501,245,938	497,748,863
Supplementary Payment Service	69,562	69,562
Fund Reserve - (deficit)	(1,514,356,966)	(1,558,191,032)
Net Position - Restricted for Pension Benefits	$ 1,187,549,469	$ 1,094,683,851

The Prior Service Fund is a reserve account for the accumulation of City contributions to provide for: 1) employee and spouse annuities that are based on service performed before the Plan's effective date of July 1, 1935, and 2) any excess in minimum annuity formula requirements over the amounts required for age and service annuities and for spouse annuities.

The City Contribution Fund is used to accumulate amounts contributed by the City to provide for annuities based on age and service of each employee and spouse. An individual account is to be kept for each employee and spouse until the employee retires, at which time the individual account balances are transferred to the Annuity Payment Fund.

The Salary Deduction Fund is similarly used to accumulate deductions made from employee salaries for age and service annuities for the employee and spouse. Individual accounts are kept until the employee retires or withdraws from service before qualifying for an annuity. At retirement, account balances are transferred to the Annuity Payment Fund. In case an eligible employee elects to take a refund of contributions instead of an annuity, the contribution refund is charged to this reserve fund.

The Annuity Payment Fund receives the amounts transferred from the individual accounts in the City Contribution Fund and the Salary Deduction Fund when an employee retires and qualifies for an annuity. All age and service annuity payments are charged to this fund.

The Supplementary Payment Reserve was established in 1969 to fund postretirement benefit increases for future and current annuitants who elected to pay into the Plan the amount necessary to receive the postretirement benefits.

The Fund Reserve represents the difference between the actuarially determined present value of all future pension payments and the value of the Plan's assets plus the present value of future contributions. A surplus indicates that assets and future contributions exceed the expected requirements for future pension payments, while a deficit indicates that additional assets will be needed to provide for future benefits.

NOTE 10. EMPLOYER (TAXES) RECEIVABLE (PAYABLE) - NET

	2019	2018
Employer contributions	$ 60,599,915	$ 48,628,414
Less allowance for uncollectible accounts	(1,915,988)	(1,191,513)
Total	$ 58,683,927	$ 47,436,901

NOTE 11. LEASE AGREEMENTS

The Plan leases its office facilities under a fifteen-year non-cancelable agreement in effect through February 28, 2026. The base rent has an abatement provision of 17 months. The Plan is amortizing the abated rent over the period covered by the agreement. Real estate taxes and maintenance charges are additional costs to the base rent and are subject to annual escalation. Rent expense, net of rent abatements, for the years ended December 31, 2019 and 2018 was $439,993 and $425,885, respectively. Future minimum rental payments required under non-cancelable leases are as follows:

Year ending December 31,	
2020	$ 470,634
2021	475,624
2022	480,613
2023	485,603
2024	490,592
2025 through 2026	578,317
	$ 2,981,383

NOTE 12. INSURANCE COVERAGE

The Plan is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; cyber breaches, errors and omissions; injuries to employees; and natural disasters. The Plan has minimized the risk of loss through private insurance carriers for commercial, business owners, and automobile policies. The deductible for this insurance coverage ranges from $100 to $500 per occurrence. There has been no significant reduction of insurance coverage from the prior year. The Plan had no claims in 2019.

NOTE 13. PROPERTY AND EQUIPMENT

Property and equipment detail for the years ended December 31, 2019 and 2018 is as follows:

	2019	2018
Office equipment	$ 110,114	$ 110,114
Custom software package	6,457,788	6,457,788
	6,567,902	6,567,902
Accumulated depreciation	(6,567,902)	(6,567,902)
	$ -	$ -

Depreciation expense for the years ended December 31, 2019 and 2018 was $0 and $930, respectively.

NOTE 14. OTHER POST EMPLOYMENT BENEFIT PLAN: THE PLAN AS EMPLOYER

Plan Description - The Plan, as an employer, administers a single-employer postemployment healthcare plan (OPEB Plan). The OPEB Plan provides lifetime health and dental care insurance for eligible retirees and their spouses through the Plan's group health insurance plans, which cover both active and retired members.

Plan Membership - Membership of the OPEB Plan consisted of the following at December 31, 2017, the date of the latest actuarial valuation:

Inactive plan members or beneficiaries currently receiving benefits	9
Inactive plan members entitled to but not yet receiving benefits	-
Active plan members	19
Total plan members	28

Contributions - The contributions requirements of plan members and the Plan are established by the Plan's Board. The required contribution is based on projected pay-as-you-go financing requirements. For 2019, the Plan contributed $61,266, for the pay-as-you-go benefits for the OPEB Plan. Plan members receiving benefits contributed $36,653 in 2019 or 45% of the total premiums for the year, through their required contributions of between $98 and $941 per month based on coverage.

Total OPEB Liability of the Plan - Effective January 1, 2018, the Plan implemented the provisions of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, which changed the Plan's accounting for OPEB amounts. The information disclosed is presented in accordance with this new standard.

NOTE 14. OTHER POST EMPLOYMENT BENEFIT PLAN: THE PLAN AS EMPLOYER (CONTINUED)

Actuarial Assumptions - The total OPEB liability in the December 31, 2017 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Actuarial Valuation Date:	December 31, 2017
Measurement Date:	December 31, 2019
Fiscal Year End Date:	December 31, 2019

Methods and Assumptions Used to Measure Total OPEB Liability:

Actuarial Cost Method:	Entry Age Normal
GASB 75 Discount Rate Beginning of Year:	3.71% per year
GASB 75 Discount Rate End of Year:	2.75% per year
Wage Inflation:	3.00% per year
Retirement Age:	Experience -based table of rates that are specific to the type of eligibility condition.
Post-retirement Mortality:	The mortality rates are from the RP-2014 Blue Collar Mortality Table with two-dimensional, fully generational improvements using the MP-2017 Mortality Improvement Scale (projected from 2006).
Health Care Trend Rates:	Pre-Medicare trend rate of -26.8%, and Post-Medicare trend rate of -3.3% for plan year beginning on January 1, 2019. Trend rates for plan years beginning on and after January 1, 2020, based on 8.00% for Pre-Medicare and 9.00% for Post-Medicare per year graded down in 0.50% increments to an ultimate trend rate of 4.50% per year. Excess trend rate of 0.43% over the base healthcare trend rate beginning in 2023 applied to pre-Medicare per capita claim cost to account for the Excise Tax under the Healthcare Reform Act.
Aging Factors:	Based on the 2013 SOA Study “Health Care Cost - From Birth to Death.”

Discount Rate - Since the OPEB Plan does not have formal assets, the discount rate is equal to the municipal bond rate of 3.71% as of December 31, 2018, and 2.75% as of December 31, 2019, which is based on the daily rate closest to but not later than the measurement date of the Fidelity “20-Year Municipal GO AA Index”.

NOTE 14. OTHER POST EMPLOYMENT BENEFIT PLAN: THE PLAN AS EMPLOYER (CONTINUED)

Changes in the Total OPEB Liability of the Plan - The changes in the total OPEB liability of the Plan for the year ended December 31, 2019, were as follows:

Total OPEB liability	
Service cost	$ 138,109
Interest on the total OPEB liability	89,080
Difference between expected and actual experience of the total OPEB liability	14,130
Changes of assumptions	350,813
Benefit payments	(56,516)
Net change in total OPEB liability	535,616
Total OPEB liability - beginning, as adjusted	2,360,665
Total OPEB liability - ending (a)	$ 2,896,281

[a] *Total OPEB liability as of December 31, 2019, was measured based on the requirements of GASB Statement No. 75, based on census, plan provisions, methods and assumptions as of December 31, 2017.*

Sensitivity of Total OPEB Liability - Regarding the sensitivity of the total OPEB liability to changes in the discount rate, the following presents the plan's total OPEB liability, calculated using a discount rate of 2.75%, as well as what the plan's total OPEB liability would be if it were calculated using a discount rate that is one percent lower or one percent higher:

Sensitivity of Total OPEB Liability to the Discount Rate Assumption

	1% Decrease 1.75%	Current Discount Rate Assumption 2.75%	1% Increase 3.75%
Plan's total OPEB liability	$ 3,408,471	$ 2,896,281	$ 2,486,943

NOTE 14. OTHER POST EMPLOYMENT BENEFIT PLAN: THE PLAN AS EMPLOYER (CONTINUED)

Regarding the sensitivity of the total OPEB liability to changes in the healthcare cost trend rates, the following presents the Plan's total OPEB liability, calculated using the assumed trend rates as well as what the Plan's total OPEB liability would be if it were calculated using a trend rate that is one percent lower or one percent higher:

Sensitivity of Total OPEB Liability
to the Healthcare Cost Trend Rate Assumption

	1% Decrease	Current Healthcare Cost Trend Rate Assumption	1% Increase
Plan's total OPEB liability	$ 2,386,810	$ 2,896,281	$ 3,566,320

OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB - For the year ended December 31, 2019, the Plan recognized OPEB expense of $257,939. At December 31, 2019, the Plan reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	Deferred Outflows to be Recognized in Future OPEB Expenses	Deferred (Inflows) to be Recognized in Future OPEB Expenses
Differences between expected and actual experience	$ 12,493	$ -
Assumption changes	310,164	(113,679)
Total	$ 322,657	$ (113,679)

NOTE 14. OTHER POST EMPLOYMENT BENEFIT PLAN: THE PLAN AS EMPLOYER (CONTINUED)

Amounts reported as deferred inflows of resources related to OPEB will be recognized in OPEB expense as follows:

Year Ended December 31,	Deferred Outflows of Resources	Deferred (Inflows) of Resources	Net Deferred Outflows (Inflows) of Resources
2020	$ 42,286	$ (16,286)	$ 26,000
2021	42,286	(16,286)	26,000
2022	42,286	(16,286)	26,000
2023	42,286	(16,286)	26,000
2024	42,286	(16,286)	26,000
2025	42,286	(16,286)	26,000
2026	42,286	(15,963)	26,323
2027	26,655	-	26,655
Total	$ 322,657	$ (113,679)	$ 208,978

NOTE 15. CONTINGENCIES

On October 9, 2012, a civil action was filed in the Circuit Court of Cook County, Illinois, *Carmichael, et al. v. Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago, et al*., Case No. 12 CH 37712, wherein the plaintiffs allege that amendments to the Illinois Pension Code in P.A. 97-0651 (the "Act") violate the U.S. and Illinois Constitution. The defendants include the Plan and the Plan's Board, along with two other public employee pension funds and their respective boards.

On November 27, 2013 and September 29, 2014, the Circuit Court dismissed certain of Plaintiffs' claims with prejudice. On April 6, 2017, the Circuit Court heard oral argument on cross motions for summary judgment as to Plaintiffs' remaining claims, after which the Circuit Court took the matter under advisement. On July 14, 2017, the Circuit Court granted in part and denied in part the parties' motions for summary judgment. The Illinois Attorney General filed a direct appeal to the Illinois Supreme Court based on the Circuit Court's ruling that the Act was, in part, unconstitutional. On November 29, 2018, the Supreme Court affirmed the Circuit Court rulings in all material respects concerning the Plan. The case has been reinstated in the Circuit Court to resolve administrative matters concerning an escrow account held by the Clerk of Circuit Court. Plaintiffs do not make a prayer for monetary relief but do seek attorney's fees. The Plan continues to defend the remaining issues in this lawsuit.

In July 2013, a group of plaintiffs purporting to represent retirees in four Chicago public pension funds filed a civil action, *Underwood v. City of Chicago et al*., seeking class certification and an order requiring the City and the defendant pension funds to continue subsidizing retiree health insurance premiums past the June 30, 2013 statutory expiration date. The City removed the case to federal court. The City's motion to dismiss was granted, but on appeal, the Seventh Circuit Court of Appeals vacated the district court's order and remanded the case with instructions for the district court to remand the case to the Circuit Court of Cook County. On April 9, 2015, the Plaintiffs moved to reinstate the Underwood complaint in the Circuit Court of Cook County, and their motion was granted. All defendants, including the Plan, moved to dismiss the Complaint. On December 3, 2015, the Court granted in part and denied in part the Plan's motion to dismiss, leaving only a claim for lifetime retiree health insurance benefits for employees working for the City between August 1985 and August 1989, based on an amendment to Article 11 of the Illinois Pension Code effective August 23, 1985. The Plaintiffs filed a Third Amended Complaint on January 13, 2016. All defendants again moved to dismiss. On July 21, 2016, the Circuit Court entered a written order granting in part the defendants' motions to dismiss, other than claims by a group of employees that were hired by the City prior to August 21, 1989, who claim a right to a health care subsidy of $25 per month under then-existing state law. Plaintiffs appealed this ruling to the First District Illinois Appellate Court. On June 29, 2017, the Appellate Court affirmed in relevant part the Circuit Court's dismissal order, other than expanding the group that is entitled to a $25 per month health insurance subsidy. The Illinois Supreme Court denied further review. The case was remanded to the Circuit Court to determine the mechanics of the payment of the $25 per month subsidy. Following remand, Plaintiffs filed a Fourth Amended Complaint, which was dismissed. Plaintiffs were given leave to appeal portions of this dismissal order related to their claim that the Funds or the City of Chicago are required to provide annuitants with a health care plan (the "Pending Appeal"). Plaintiffs then filed a Fifth Amended Complaint which was withdrawn. Plaintiffs have now filed a Sixth Amended Complaint, which Defendants all moved to dismiss. On April 18, 2019, the Circuit Court heard oral argument on the motions to dismiss. On May 3, 2019, the Circuit Court issued a written decision dismissing the entire Sixth Amended Complaint except for the portion of Count 1 alleging a right to a health insurance subsidy. On July 16, 2019, the Circuit Court approved notices to be sent to annuitants advising them of eligibility requirements to be paid retroactive $25 per month health insurance subsidies for the time period January 1, 2017 through December 31, 2019, and for annuitants who are paying for group health insurance through reductions from their annuities to receive a monthly $25 per month credit toward their health insurance premiums. All Circuit Court proceedings are currently stayed. The Pending Appeal is fully briefed in the First District Appellate Court. Oral argument has been cancelled. The Plan continues to defend this lawsuit. The outcome is uncertain.

NOTE 16. SUBSEQUENT EVENTS

Subsequent to year-end, U.S. and global business and financial markets have been severely impacted by the Coronavirus pandemic. The potential impacts on the Plan's financial condition and activities cannot be determined at this time. All subsequent events have been evaluated through June 9, 2020, which is the date the financial statements were available to be issued. This review and evaluation revealed no other material event or transaction which would require an adjustment to or disclosure in the accompanying financial statements.

REQUIRED SUPPLEMENTARY INFORMATION

Laborers' and Retirement Board Employees Annuity and Benefit Fund of Chicago

Required Supplementary Information

December 31, 2019

Schedules of Changes in Net Pension Liability And Related Ratios Multiyear

	2019	2018	2017	2016	2015	2014
Total pension liability						
Service cost including pension plan administrative expense	$ 38,522,157	$ 40,800,911	$ 80,231,718	$ 82,960,086	$ 38,388,765	$ 38,523,054
Interest on the total pension liability	188,347,405	183,135,028	154,047,387	150,166,006	153,811,897	174,071,492
Benefit changes	-	-	150,457	-	384,032,638	(324,166,854)
Difference between expected and actual experience	(8,820,458)	15,143,356	(62,178,234)	(30,428,098)	(46,084,758)	-
Assumption changes	32,846,315	(11,788,138)	(1,074,754,285)	(62,905,368)	1,175,935,546	28,201,429
Benefit payments	(162,118,145)	(157,317,980)	(154,767,434)	(151,922,150)	(150,013,189)	(145,586,268)
Refunds	(2,841,113)	(2,742,788)	(2,282,455)	(2,760,872)	(2,516,351)	(2,071,694)
Pension plan administrative expense	(3,691,171)	(3,933,389)	(3,984,947)	(4,080,239)	(3,844,346)	(3,835,170)
Net change in total pension liability	82,244,990	63,297,000	(1,063,537,793)	(18,970,635)	1,549,710,202	(234,864,011)
Total pension liability - beginning	2,693,404,508	2,630,107,508	3,693,645,301	3,712,615,936	2,162,905,734	2,397,769,745
Total pension liability - ending (a)	$ 2,775,649,498	$ 2,693,404,508	$ 2,630,107,508	$ 3,693,645,301	$ 3,712,615,936	$ 2,162,905,734
Plan fiduciary net position						
Employer contributions	$ 59,346,056	$ 47,844,184	$ 35,456,607	$ 12,603,498	$ 12,412,471	$ 12,160,815
Employee contributions	18,143,163	17,836,801	17,410,821	17,245,913	16,844,246	16,359,082
Pension plan net investment income	184,026,828	(75,219,068)	207,981,245	57,997,329	(22,318,476)	53,393,517
Benefit payments	(162,118,145)	(157,317,980)	(154,767,434)	(151,922,150)	(150,013,189)	(145,586,268)
Refunds	(2,841,113)	(2,742,788)	(2,282,455)	(2,760,872)	(2,516,351)	(2,071,694)
Pension plan administrative expense	(3,691,171)	(3,933,389)	(3,984,947)	(4,080,239)	(3,844,346)	(3,835,170)
Other	-	661,530	-	-	-	-
Net change in plan fiduciary net position	92,865,618	(172,870,710)	99,813,837	(70,916,521)	(149,435,645)	(69,579,718)
Plan fiduciary net position - beginning	1,094,683,851	1,267,554,561	1,167,740,724	1,238,657,245	1,388,092,890	1,457,672,608
Plan fiduciary net position - ending (b)	$ 1,187,549,469	$ 1,094,683,851	$ 1,267,554,561	$ 1,167,740,724	$ 1,238,657,245	$ 1,388,092,890
Net pension liability - ending (a) - (b)	$ 1,588,100,029	$ 1,598,720,657	$ 1,362,552,947	$ 2,525,904,577	$ 2,473,958,691	$ 774,812,844
Plan fiduciary net position as a percentage of total pension liability	42.78 %	40.64 %	48.19 %	31.61 %	33.36 %	64.18 %
Covered payroll	$ 211,607,883	$ 211,482,201	$ 208,442,487	$ 208,154,918	$ 204,772,903	$ 202,673,014
Net pension liability as a percentage of covered payroll	750.49 %	755.96 %	653.68 %	1,213.47 %	1,208.15 %	382.30 %

10 fiscal years will be built prospectively. Please see the following page for additional notes relating to the Schedules of Changes in Net Pension Liability and Related Ratios Multiyear.

ADDITIONAL NOTES TO SCHEDULES OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS MULTIYEAR

The total pension liability at the beginning of fiscal year 2019 used a Single Discount Rate of 7.11% and the benefit provisions and funding policy in effect as of the December 31, 2018 funding actuarial valuation. The Single Discount Rate of 7.11% was based on a long-term expected rate of return on pension plan investments of 7.25% for years 2019 through 2072 and a long-term municipal bond rate as of December 28, 2018, of 3.71% for subsequent years after 2072.

The total pension liability at the end of fiscal year 2019 used a Single Discount Rate of 7.00% and the benefit provisions and funding policy in effect as of the December 31, 2019, funding actuarial valuation. The Single Discount Rate of 7.00% was based on a long-term expected rate of return on pension plan investments of 7.25% for years 2020 through 2073 and a long-term municipal bond rate as of December 30, 2019, of 2.75% for subsequent years after 2073.

The change in the long-term municipal bond rate from 3.71% at December 28, 2018 to 2.75% as of December 28, 2019, caused the Single Discount Rate to decrease slightly from 7.11% at December 31, 2018 to 7.00% at December 31, 2019.

LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

REQUIRED SUPPLEMENTARY INFORMATION

DECEMBER 31, 2019

SCHEDULE OF THE NET PENSION LIABILITY MULTIYEAR

FY Ending December 31,	Total Pension Liability	Plan Net Position	Net Pension Liability	Plan Net Position as a % of Total Pension Liability	Covered Payroll*	Net Pension Liability as a % of Covered Payroll
2014	$ 2,162,905,734	$ 1,388,092,890	$ 744,812,844	64.18%	$ 202,673,014	382.30%
2015	3,712,615,936	1,238,675,245	2,473,958,691	33.36%	204,772,903	1208.15%
2016	3,693,645,301	1,167,740,724	2,525,904,577	31.61%	208,154,918	1213.47%
2017	2,630,107,508	1,267,554,561	1,362,552,947	48.19%	208,442,487	653.68%
2018	2,693,404,508	1,094,683,851	1,598,720,657	40.64%	211,482,201	755.96%
2019	2,775,649,498	1,187,549,469	1,588,100,029	42.78%	211,607,883	750.49%

** Covered payroll shown is the amount in force as of the actuarial valuation date and likely differs from actual payroll paid during the fiscal year.*

10 fiscal years will be built prospectively.

LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

REQUIRED SUPPLEMENTARY INFORMATION

DECEMBER 31, 2019

SCHEDULE OF CONTRIBUTIONS MULTIYEAR
LAST 10 FISCAL YEARS

FY Ending December 31,	Actuarially Determined Contribution*	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll**	Actual Contribution as a % of Covered Payroll	Statutory Contribution***	Statutory Contribution Deficiency/(Excess)
2010	$ 46,664,704	$ 15,351,944	$ 31,312,760	$ 199,863,410	7.68%	$ 15,652,734	$ 300,790
2011	57,258,593	12,778,697	44,479,896	195,238,332	6.55%	13,055,795	277,098
2012	77,566,394	11,852,905	65,713,489	198,789,741	5.96%	12,336,770	483,865
2013	106,199,410	11,583,051	94,616,359	200,351,820	5.78%	12,098,712	515,661
2014	106,018,725	12,160,815	93,857,910	202,673,014	6.00%	12,714,800	553,985
2015	79,850,835	12,412,471	67,438,364	204,772,903	6.06%	12,857,827	445,356
2016	117,033,100	12,603,498	104,429,603	208,154,918	6.05%	13,179,003	575,505
2017	124,226,042	35,456,607	88,769,435	208,442,487	17.01%	36,000,000	543,393
2018	129,247,584	47,844,184	81,403,400	211,482,201	22.62%	48,000,000	155,816
2019	148,409,689	59,346,056	89,063,633	211,607,883	28.05%	60,000,000	653,944

** The LABF Statutory Funding Policy does not conform to Actuarial Standards of Practice, therefore, the Actuarially Determined Contribution is equal to the normal cost plus an amount to amortize the unfunded liability using level dollar payments and a 30-year open amortization period.*

*** Covered payroll shown is the amount in force as of the actuarial valuation date and likely differs from actual payroll paid during the fiscal year.*

**** Excludes amounts paid for health insurance supplement in fiscal years prior to December 31, 2017.*

NOTES TO SCHEDULE OF CONTRIBUTIONS MULTIYEAR

Valuation Date:	December 31, 2019

Methods and Assumptions Used to Determine Contribution Rates as of the Valuation Date:

Actuarial Cost Method	Entry Age Normal
Amortization Method	Prior to 2017, the total City contribution is generated by a tax equal to 1.00 times the contributions by participants to the Plan two years prior to the year of the tax levy. For tax levy years 2017-2021, the statutory contributions are equal to $36 million, $48 million, $60 million, $72 million, and $84 million, respectively. For tax levy years on and after 2022, the statutory contributions are equal to a level percentage of pay contribution determined so that the Plan attains a 90% funded ratio by the end of 2058 on an open group basis.
Remaining Amortization Period	Not Applicable. An amortization payment is not directly calculated. The amortization payment is the difference between the total statutory contribution and the employer normal cost contribution.
Asset Valuation Method	5-year smoothed market
Inflation	2.25% as of the December 31, 2019 actuarial valuation
Salary Increases	Salary increase rates based on service-related productivity and merit rates plus wage inflation of 3.00%.
Post Retirement Benefit Increases	Postretirement benefit increases are equal to 3.00 percent, compounded annually, for Tier 1 members. Post retirement increases for Tier 2 and Tier 3 members are equal to the lesser of 3.00 percent or one-half the annual unadjusted percentage increase (but no less than zero) in the Consumer Price Index-U for the 12 months ending with the September preceding the date of the increase, using simple interest.

NOTES TO SCHEDULE OF CONTRIBUTIONS MULTIYEAR (CONTINUED)

Investment Rate of Return	7.25% as of the December 31, 2019 actuarial valuation
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the December 31, 2017, valuation pursuant to an experience study of the period January 1, 2012 through December 31, 2016.
Mortality	Post Retirement Mortality: Scaling factors of 117% for males, and 102% for females of the RP-2014 Blue collar Healthy Annuitant mortality table, sex distinct, with generational mortality improvement using MP-2017 2-dimensional mortality improvement scales. No adjustment is made for post-disabled mortality. Pre-Retirement Mortality: Scaling factors of 109% for males, and 103% for females of the RP-2014 Blue Collar Employee mortality table, sex distinct, with generational mortality improvement using MP-2017 2-dimensional mortality improvement scales.

Other Information:

Notes	The actuarial valuation is based on the statutes in effect as of December 31, 2019.

Method and Assumptions Used for Accounting Purposes as of the Valuation Date:

Actuarial Cost Method:	Entry Age Normal
Asset Valuation Method:	Market
Discount Rate:	7.11% as of the December 31, 2018 valuation 7.00% as of the December 31, 2019 valuation

Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago

Required Supplementary Information

December 31, 2019

Schedule of Investment Returns Multiyear

	2019	2018	2017	2016	2015	2014
Annual money-weighted rate of return, net of investment expense	17.8%	-6.4%	18.7%	5.0%	-1.5%	3.2%

10 fiscal years will be built prospectively.

Required Supplementary Information

December 31, 2019

Schedules of Changes in Total OPEB Liability for the Plan as Employer and Employer Related ratios Multiyear

	2019	2018
Total OPEB liability		
Service cost	$ 138,109	$ 152,130
Interest on the total OPEB liability	89,080	79,003
Difference between expected and actual experience	14,130	-
Assumption changes	350,813	(146,251)
Benefit payments	(56,516)	(70,559)
Net change in total OPEB liability	535,616	14,323
Total OPEB liability - beginning, as adjusted	2,360,665	2,346,342
Total OPEB liability - ending (a)	$ 2,896,281	$ 2,360,665
Covered-employee payroll	$ 1,756,480	$ 1,670,363
Total OPEB liability as a percentage of covered-employee payroll	164.89 %	141.33 %
Discount Rate, Beginning of Year	3.71 %	3.31 %
Discount Rate, End of Year	2.75 %	3.71 %
Long -Term Municipal Bond Rate, End of Year	2.75 %	3.71 %
Long -Term Municipal Bond Rate Date	December 30, 2019	December 28, 2018

(a) Total OPEB liability as of December 31, 2019 and December 31, 2018, was measured based on the requirements of GASB Statement No. 75, based on census, plan provisions, methods and assumptions as of December 31, 2017.

10 fiscal years will be built prospectively. Please see the following page for additional notes relating to the Schedule of Changes in Net Pension Liability and Related Ratios Multiyear.

SUPPLEMENTARY INFORMATION

Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago

Schedules of Invested Assets
Cost and Fair Value
(In Thousands)

	2019				2018			
	Cost Value		Fair Value		Cost Value		Fair Value	
Cash and short-term investments	$ 40,448	4.3%	$ 40,451	3.6%	$ 26,083	2.7%	$ 26,102	2.5%
U.S. equities	243,757	26.2%	323,274	28.5%	233,059	23.7%	244,524	23.2%
Foreign equities	195,040	20.9%	263,102	23.2%	200,685	20.4%	220,121	20.8%
Equity funds	30,385	3.3%	42,412	3.7%	38,618	3.9%	43,998	4.2%
U.S. Government obligations and municipal bonds	83,060	8.9%	84,976	7.5%	78,586	8.0%	77,986	7.4%
U.S. corporate bonds	47,271	5.1%	49,294	4.3%	49,557	5.0%	47,953	4.5%
Foreign fixed income securities	76,036	8.2%	78,669	6.9%	71,503	7.3%	68,491	6.5%
Fixed income funds	8,244	0.9%	8,324	0.7%	56,982	5.8%	62,093	5.9%
Private markets	30,243	3.2%	33,215	2.9%	21,922	2.2%	27,063	2.6%
Real estate	99,375	10.7%	121,408	10.7%	100,829	10.3%	121,113	11.5%
Hedge funds	77,221	8.3%	88,770	7.8%	78,937	8.0%	85,605	8.1%
Global Asset Allocation	-	0.0%	-	0.0%	26,427	2.7%	30,704	2.9%
Invested assets at cost/fair value	$ 931,080	100.0%	$ 1,133,895	100.0%	$ 983,188	100.0%	$ 1,055,753	100.0%

Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago

Required Supplementary Information

December 31, 2019

Schedules of Administrative Expenses, Investment Expenses and Professional Services

Schedules of Administrative Expenses

	2019	2018
Personnel services	$ 2,036,832	$ 2,190,089
Professional services	481,410	639,756
OPEB expense	257,939	219,597
Depreciation	-	930
Litigation expense	154,572	99,254
Occupancy and utilities	426,853	418,662
Insurance	193,611	213,897
Document retention	5,239	5,647
Supplies and equipment	49,854	55,261
Printing and technical services	27,324	22,853
Disaster recovery site	11,040	12,450
Telecommunications and internet	15,878	20,163
Postage	13,992	14,452
Miscellaneous	16,627	20,378
Total	$ 3,691,171	$ 3,933,389

Schedules of Investment Expenses

	2019	2018
Investment management fees	$ 7,143,201	$ 7,326,900
Other investment expenses	382,096	100,179
Investment consultant fee	245,000	245,000
Investment custody fees	207,645	214,575
Total	$ 7,977,942	$ 7,886,654

Schedules of Professional Services

	2019	2018
Actuarial valuation	$ 70,501	$ 89,000
Auditing	41,563	41,856
Benefit check production	92,414	90,362
Custom software development	47,512	194,104
IT consultant	2,000	-
Legal services	165,680	163,546
Legislative consultant	18,480	18,480
Medical consultant	43,260	42,408
Total	$ 481,410	$ 639,756

Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago

Schedules of Investment Expenses

Years Ended December 31, 2019 and 2018

	2019	2018
Investment Management Fees		
AFL-CIO Housing Investment Trust	$ 40,783	$ 96,376
Ariel Investment, LLC	169,332	162,017
ASB Capital Management LLC	348,769	343,559
Ballie Gifford Oversees Ltd	444,380	449,674
Baird Advisors	73,560	58,978
Brightwood Capital Advisors, LLC	141,772	79,177
Core Capital	35,792	-
EntrustPermal Partners	59,060	76,673
Fiera Capital Inc.	174,436	458,226
Glouston Capital Partners	125,000	125,000
Hexavest Inc.	-	240,734
Hopewell Partners, LLC	23,594	28,140
John Buck Company	-	1,290
JP Morgan Chase Bank, N.A.	505,679	38,514
Keeley Asset Management Corp.	167,795	161,095
Lazard Asset Management	152,760	19,895
Levine Leichtman Capital Partners, LLC	165,888	273,589
Lighthouse Investment Partners, LLC	267,247	265,898
LM Capital Group, LLC.	224,443	208,278
Long Wharf Real Estate Partners LLC	253,763	150,000
Mesirow Financial Private Equity Advisors, Inc.	87,253	96,951
Mesirow Financial Investment Management, Inc.	187,813	294,977
MMF Capital Management LLC	-	1,449
Morgan Stanley AIP GP LP	38,260	192,685
Neuberger Berman Investment Advisers LLC	215,020	200,075
Newport Capital	-	4,250
Palladium Capital Management V, LLC	699,604	
Pantheon Ventures (US) LP	196,830	218,699
PIMCO	-	43,679
Pluscios Management LLC	226,067	227,689
Progress Investment Management Company, LLC	700,462	836,486
RhumbLine Advisers Limited Partnership	24,837	17,945
Symphony Asset Management Company LLC	124,293	-
Vontobel Asset Management, Inc.	348,886	370,019
Wasatch Advisors Inc.	582,301	743,025
Wellington Management Company LLP	-	326,582
Western Asset Management Company	52,693	177,330
William Blair & Company, L.L.C.	284,830	337,946
Total investment management fees	7,143,201	7,326,900
Other Investment Expenses		
Northern Trust Company	382,096	100,179
Investment Consulting Fees		
Marquette Associates, Inc.	245,000	245,000
Investment Custody Fees		
Northern Trust Company	207,645	214,575
Total investment expenses	$ 7,977,942	$ 7,886,654