

**FIREMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO  
(A FIDUCIARY FUND OF THE CITY OF CHICAGO, ILLINOIS)**

FINANCIAL STATEMENTS

DECEMBER 31, 2016 AND 2015

**FIREMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO**

**FINANCIAL STATEMENTS WITH SUPPLEMENTARY INFORMATION**

**DECEMBER 31, 2016 AND 2015**

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**FIREMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO**

**FINANCIAL STATEMENTS WITH SUPPLEMENTARY INFORMATION**

**DECEMBER 31, 2016 AND 2015**

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**REPORT OF INDEPENDENT AUDITORS**

To the Board of Trustees of  
Firemen's Annuity and Benefit  
Fund of Chicago

***Report on the Financial Statements***

We have audited the accompanying financial statements of Firemen's Annuity and Benefit Fund of Chicago (the Plan), a fiduciary fund of the City of Chicago, Illinois, which comprise the combining statements of pension plan fiduciary net position and health insurance supplement plan net position as of December 31, 2016 and 2015, and the related combining statements of changes in pension plan fiduciary net position and health insurance supplement plan 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 for the Financial Statements***

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 of material misstatement.

An audit includes performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's 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 auditor considers internal control relevant to the Plan's preparation and fair 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 examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. 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 in the first paragraph present fairly, in all material respects, the plan net position of Firemen's Annuity and Benefit Fund of Chicago as of December 31, 2016 and 2015, and the changes in plan net position for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

### ***Emphasis of Matter***

As discussed in Note 11 to the financial statements, Public Act 98-0043 (the Act) which was effective June 28, 2013, terminates the retiree healthcare subsidy paid by the Plan as of December 31, 2016. As a result, the statement of health insurance supplement plan net position, changes in health insurance supplement plan net position, and required supplementary information related to the health insurance supplement plan will be eliminated in subsequent years' financial statement presentations.

### ***Other Matters***

#### ***Required Supplementary Information***

Accounting principles generally accepted in the United States of America require that Management's Discussion and Analysis on pages 4 through 4e and the required supplementary information on pages 34 through 39 be presented to supplement the basic financial statements. Such information, although not a 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 historical 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 audit 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.

#### ***Supplementary Information***

Our audits were conducted for the purpose of forming an opinion on the Plan's basic financial statements as a whole. The accompanying supplementary information on pages 40 through 42 is presented for purposes of additional analysis and is not a required part of the 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 basic 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 information is fairly stated in all material respects in relation to the basic financial statements as a whole.

***Other Matters (continued)***

***Previously Audited Information***

We also have previously audited the basic financial statements for the years ended December 31, 2014, 2013, 2012, and 2011 (which are not presented herein), and we expressed unmodified opinions on those financial statements. In our opinion, the information on page 42 is fairly stated in all material respects in relation to the basic financial statements from which it has been derived.

*Legacy Professionals LLP*

Chicago, Illinois

June 28, 2017

# FIREMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

## MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)

DECEMBER 31, 2016 AND 2015

This section presents Management's Discussion and Analysis of the financial position and performance of the Firemen's Annuity and Benefit Fund of Chicago (the Plan) as of and for the year ended December 31, 2016 and 2015. This discussion is presented as an overview of the financial activities of the Plan and should be read in conjunction with the Plan's financial statements.

### Overview of the Basic Financial Statements

The following discussion and analysis is intended to serve as an introduction to the Plan's basic financial statements. The financial statements are prepared on an economic sources focus and accrual basis of accounting in accordance with Governmental Accounting Standards Board (GASB) pronouncements. The basic components of the financial package are described below:

**Combining Statements of Pension Plan Fiduciary Net Position and Health Insurance Supplement Plan Net Position** provides a snapshot of account balances and net position held in trust for future benefit payments and any liabilities as of the Plan's year end. Over time, increases and decreases in net position may serve as a useful indicator of whether the financial position of the Plan is improving or deteriorating.

**Combining Statements of Changes in Pension Plan Fiduciary Net Position and Health Insurance Supplement Plan Net Position** shows the revenues (additions) and expenses (deductions) during the year, where additions less deductions equal net increase (decrease) in net position. The net increase (decrease) in net position reports the change in net position as reported in the combining Statements of Changes in Pension Plan Fiduciary Net Position and Health Insurance Supplement Plan Net Position of the prior year and the current year.

**Notes to the Financial Statements** provides additional information that is essential to achieving a better understanding of the data provided in the basic financial statements.

**Required Supplementary Information** provides schedules and related notes concerning actuarial information, funding progress, employer contributions, and investment returns.

**Supplementary Information** includes schedules of administrative expenses, investment expenses, additions by source, and deductions by type.

## Financial Highlights

### Plan Net Position

The condensed Combining Statements of Pension Plan Fiduciary Net Position and Health Insurance Supplement Plan Net Position reflect the resources available to pay benefits to members. A summary of the Combining Statements of Pension Plan Fiduciary Net Position and Health Insurance Supplement Plan Net Position is as follows:

	Plan Net Position As of December 31,			Current Year Increase/(Decrease) in	
	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>Dollars</u>	<u>Percent</u>
Assets:					
Receivables	\$ 208,693,164	\$ 245,450,243	\$ 116,531,262	\$ (36,757,079)	-15.0 %
Prepaid expenses	213,718	173,206	137,990	40,512	23.4 %
Investments, at fair value	814,391,075	802,505,864	922,505,115	11,885,211	1.5 %
Collateral held for securities on loan	<u>123,059,048</u>	<u>140,197,357</u>	<u>160,968,881</u>	<u>(17,138,309)</u>	-12.2 %
Total assets	<u>1,146,357,005</u>	<u>1,188,326,670</u>	<u>1,200,143,248</u>	<u>(41,969,665)</u>	-3.5 %
Liabilities:					
Payables	4,284,164	3,028,220	3,165,966	1,255,944	41.5%
Securities lending collateral	<u>123,059,048</u>	<u>140,197,357</u>	<u>160,968,881</u>	<u>(17,138,309)</u>	-12.2 %
Total liabilities	<u>127,343,212</u>	<u>143,225,577</u>	<u>164,134,847</u>	<u>(15,882,365)</u>	-11.1 %
Plan net position	<u>\$ 1,019,013,793</u>	<u>\$ 1,045,101,093</u>	<u>\$ 1,036,008,401</u>	<u>\$ (26,087,300)</u>	-2.5 %

Plan net position decreased by \$26,087,300 or 2.5% from \$1,045,101,093 at December 31, 2015 to \$1,019,013,793 at December 31, 2016. Comparatively, plan net position increased by \$9,092,692 or 0.9% from \$1,036,008,401 at December 31, 2014 to \$1,045,101,093 at December 31, 2015.

The decrease in plan net position for the year ended December 31, 2016 was primarily due to a significant decrease in employer contributions of 34.5% for the year ended December 31, 2016. The overall decline of plan net position was significantly offset by investment returns.

The increase in plan net position for the year ended December 31, 2015 was primarily due to significant increase in employer contributions of 117.2% for the year ended December 31, 2015. Overall growth of plan net position was significantly offset by the liquidation of marketable securities to meet monthly benefit obligations.



## Changes in Plan Net Position

The condensed Combining Statements of Changes in Pension Plan Fiduciary Net Position and Health Insurance Supplement Plan Net Position reflects the changes in the resources available to pay benefits to members. A summary of the Combining Statements of Changes in Pension Plan Fiduciary Net Position and Health Insurance Supplement Plan Net Position is as follows:

### Changes in Plan Net Position For the Years Ended December 31,

	<u>2016</u>	<u>2015</u>	<u>2014</u>	Current Year	
				<u>Increase/(Decrease) in Dollars</u>	<u>Percent</u>
<b>Additions:</b>					
Employer contributions	\$ 156,158,391	\$ 238,485,820	\$ 109,805,454	\$ (82,327,429)	-34.5 %
Plan member contributions	48,959,929	46,552,247	48,056,393	2,407,682	5.2 %
Net investment income (loss)	54,708,936	(873,305)	30,179,163	55,582,241	6364.6 %
Net securities lending income	653,249	526,419	684,725	126,830	24.1 %
Other	5,525,415	7,949,589	11,394	(2,424,174)	-30.5 %
Total additions	<u>266,005,920</u>	<u>292,640,770</u>	<u>188,737,129</u>	<u>(26,634,850)</u>	<u>-9.1 %</u>
<b>Deductions:</b>					
Benefits	283,085,767	274,459,754	261,571,672	8,626,013	3.1 %
Administrative expenses	3,216,823	3,149,549	3,066,946	67,274	2.1 %
Annuitant health care	2,056,995	2,381,458	2,471,055	(324,463)	-13.6%
Litigation settlement	60,385	-	2,246	60,385	N/A
Refunds of contributions	3,673,250	3,557,317	2,321,666	115,933	3.3 %
Total deductions	<u>292,093,220</u>	<u>283,548,078</u>	<u>269,433,585</u>	<u>8,545,142</u>	<u>3.0 %</u>
Net increase (decrease) in plan net position	<u>\$ (26,087,300)</u>	<u>\$ 9,092,692</u>	<u>\$ (80,696,456)</u>	<u>\$ (35,179,992)</u>	<u>-386.9 %</u>

### Additions to Plan Net Position

Total additions were \$266,005,920 in 2016, \$292,640,770 in 2015 and \$188,737,129 in 2014.

Employer contributions decreased by \$82,327,429 or 34.5% from \$238,485,820 for the year ended December 31, 2015 to \$156,158,391 for the year ended December 31, 2016. Comparatively, employer contributions increased by \$128,680,366 or 117.2% from \$109,805,454 for the year ended December 31, 2014 to \$238,485,820 for the year ended December 31, 2015. During the year ended December 31, 2016, the Plan recognized a decrease in employer contributions due to Public Act 99-0506 which significantly deferred employer contributions to future years. During the year ended December 31, 2015, the Plan recognized an increase in contributions as a result of Public Act 96-1495, which was subsequently amended by the aforementioned Public Act 99-0506.

## **Additions to Plan Net Position (continued)**

Plan member contributions increased by \$2,407,682 or 5.2% from \$46,552,247 for the year ended December 31, 2015 to \$48,959,929 for the year ended December 31, 2016.

Comparatively, plan member contributions decreased by \$1,504,146 or 3.1% from \$48,056,393 for the year ended December 31, 2014 to \$46,552,247 for the year ended December 31, 2015.

Plan member contributions for the year ended December 31, 2016 increased due to employee contributions received as a result of the Godfrey litigation settlement. Also, plan member contributions increased due to annual cost of living increases. Plan member contributions for the year ended December 31, 2015 decreased as a result of approximately \$3.3 million in retroactive member contributions received during the year ended December 31, 2014.

Net investment income increased by \$55,582,241 from a loss of (\$873,305) for the year ended December 31, 2015 to a gain of \$54,708,936 for the year ended December 31, 2016.

Comparatively, net investment income decreased by \$31,052,468 from a gain of \$30,179,163 for the year ended December 31, 2014 to a loss of (\$873,305) for the year ended December 31, 2015.

In stark contrast to 2015, 2016 saw positive returns across most asset classes. The past year will be remembered for the political events that shaped the global financial markets. US equities returned an impressive 13.1% for the year due in part to continued moderate GDP growth and low interest rates. The US presidential election sent stocks even higher on hopes the new administration would cut taxes, reduce regulations and increase spending on infrastructure. International equities didn't perform as well, posting a modest 4% due to geopolitical events, such as Brexit, as well as a strengthening US dollar. Fixed income returned a solid 4.8%, led by high yield corporate bonds. Commodities finished 2016 with a return of 13.2% due to a significant gain in crude oil prices. The 2015 calendar year will be remembered for the long-awaited first Federal Reserve interest rate hike in nine years, as well as a year of disappointing returns across all asset classes, with plunging commodity and oil prices and uncertainty over the pace of China's slowdown. Painfully, no year since 1990 has seen more negative returns across equity, fixed income, and commodity prices. While losses in 2008 were sharper, losses in 2015 were more broad-based. Despite the poor investment results, the U.S. economy remained a relative bright spot in the global economy.

### **Additions to Plan Net Position (continued)**

The Plan's realized return on investments for the year ended December 31, 2016 was 8.0% versus 0.4% for the year ended December 31, 2015 and 3.9% for the year ended December 31, 2014. Over the previous twenty years, the Plan's annual return is 7.7% compared to the actuarial assumed expected rate of return of 7.5%.

#### **Portfolio Rate of Return For the Years Ended December 31,**

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Domestic Equities	13.1%	1.3%	8.0%
S&P 500 Benchmark	12.0%	1.4%	13.7%
International Equities	4.0%	0.3%	-3.7%
MS World Ex US	3.3%	-2.6%	-3.9%
Fixed income	4.8%	-0.3%	6.7%
Barclays Aggregate Benchmark	2.7%	0.6%	6.0%
Total Plan	8.0%	0.4%	3.9%

### **Deductions to Plan Net Position**

Total deductions were \$292,093,220 in 2016, \$283,548,078 in 2015 and \$269,433,585 in 2014.

Benefits increased by \$8,626,013 or 3.1% from \$274,459,754 for the year ended December 31, 2015 to \$283,085,767 for the year ended December 31, 2016. Comparatively, benefits increased by \$12,888,082 or 4.9% from \$261,571,672 for the year ended December 31, 2014 to \$274,459,754 for the year ended December 31, 2015. In recent times, benefits have increased yearly due to several factors; a contractual free healthcare incentive which has added annuitants above the expected number, cost of living increases, and new annuitants coming on the pension roll at higher rates than the annuitants that are being removed from the pension roll.

Administrative expenses, annuitant health care, litigation settlement and refunds of contributions have all remained at relatively constant amounts over the last three years.

## Actuarial Information

### Pension Benefits

The Plan's funding for pension benefits as of December 31, 2016, 2015 and 2014 is as follows:

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Total pension liability	\$ 5,149,258,197	\$ 4,826,084,038	\$ 4,512,760,079
Plan fiduciary net position	<u>1,019,013,793</u>	<u>1,045,101,093</u>	<u>1,036,008,401</u>
City's net pension liability	<u>\$ 4,130,244,404</u>	<u>\$ 3,780,982,945</u>	<u>\$ 3,476,751,678</u>
Plan fiduciary net position as a percentage of the total pension liability	<u>19.79%</u>	<u>21.66%</u>	<u>22.96%</u>

### Postemployment Healthcare Benefits

The Plan's funding for postemployment healthcare benefits as of December 31, 2016, 2015 and 2014 is as follows:

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Unfunded actuarial accrued liability	<u>\$ -</u>	<u>\$ 2,398,609</u>	<u>\$ 4,994,927</u>
Funded ratio	<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>

Contributions for postemployment healthcare benefits are made on a "pay-as-you-go" basis resulting in a 0.00% funded ratio. Public Act 98-0043, effective June 29, 2013, terminates the retiree healthcare subsidy paid by the Plan after December 31, 2016.

## Contact Information

This financial report is designed to provide plan participants, retirees, beneficiaries, the employer and all other interested users with a complete, detailed, easy to understand financial portrait of the Plan at December 31, 2016. Comments, questions or concerns regarding this report or requests for additional information should be addressed to:

Steve Swanson, Executive Director  
Firemen's Annuity and Benefit Fund of Chicago  
20 S. Clark Street, Suite 1400  
Chicago, IL 60603

**FIREMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO**

**COMBINING STATEMENTS OF PENSION PLAN FIDUCIARY NET POSITION AND HEALTH INSURANCE SUPPLEMENT PLAN NET POSITION**

DECEMBER 31, 2016 AND 2015

	2016		2015			
	<u>Total</u>	<u>Pension</u>	<u>Health Insurance Supplement</u>	<u>Total</u>	<u>Pension</u>	<u>Health Insurance Supplement</u>
<b>ASSETS</b>						
Receivables						
Employer contributions - net	\$ 200,385,829	\$ 200,385,829	\$ -	\$ 239,326,404	\$ 239,326,404	\$ -
Investment income	2,404,085	2,404,085	-	2,502,243	2,502,243	-
Other	2,940,740	2,940,740	-	2,208,616	2,208,616	-
Securities lending	88,214	88,214	-	47,550	47,550	-
Unsettled trades	2,874,296	2,874,296	-	1,365,430	1,365,430	-
Total receivables	<u>208,693,164</u>	<u>208,693,164</u>	<u>-</u>	<u>245,450,243</u>	<u>245,450,243</u>	<u>-</u>
Prepaid expenses	213,718	213,718	-	173,206	173,206	-
Investments						
Cash deposits and short-term investments	66,904,580	66,904,580	-	66,939,944	66,939,944	-
Corporate bonds	112,584,442	112,584,442	-	107,812,011	107,812,011	-
Equities	520,286,225	520,286,225	-	517,424,574	517,424,574	-
Pooled funds	28,675,801	28,675,801	-	27,476,898	27,476,898	-
Private equity and venture capital	21,896,500	21,896,500	-	27,282,995	27,282,995	-
U.S. and Foreign Government obligations	64,043,527	64,043,527	-	55,569,442	55,569,442	-
Total investments	<u>814,391,075</u>	<u>814,391,075</u>	<u>-</u>	<u>802,505,864</u>	<u>802,505,864</u>	<u>-</u>
Collateral held for securities on loan	123,059,048	123,059,048	-	140,197,357	140,197,357	-
Total assets	<u>1,146,357,005</u>	<u>1,146,357,005</u>	<u>-</u>	<u>1,188,326,670</u>	<u>1,188,326,670</u>	<u>-</u>
<b>LIABILITIES</b>						
Accounts payable and accrued expenses	1,067,983	1,067,983	-	1,092,789	1,092,789	-
Participant accounts	574,919	574,919	-	557,734	557,734	-
Securities lending collateral	123,059,048	123,059,048	-	140,197,357	140,197,357	-
Securities lending	22,023	22,023	-	11,853	11,853	-
Unsettled trades	2,619,239	2,619,239	-	1,365,844	1,365,844	-
Total liabilities	<u>127,343,212</u>	<u>127,343,212</u>	<u>-</u>	<u>143,225,577</u>	<u>143,225,577</u>	<u>-</u>
<b>NET POSITION</b>						
Net position restricted for pensions	1,019,013,793	1,019,013,793	-	1,045,101,093	1,045,101,093	-
Net position held in trust for health insurance supplement benefits	-	-	-	-	-	-
	<u>\$ 1,019,013,793</u>	<u>\$ 1,019,013,793</u>	<u>\$ -</u>	<u>\$ 1,045,101,093</u>	<u>\$ 1,045,101,093</u>	<u>\$ -</u>

See accompanying notes to financial statements.

## FIREMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

## COMBINING STATEMENTS OF CHANGES IN PENSION PLAN FIDUCIARY NET POSITION AND HEALTH INSURANCE SUPPLEMENT PLAN NET POSITION

YEARS ENDED DECEMBER 31, 2016 AND 2015

	2016		2015	
	Total	Pension	Total	Pension
				Health Insurance Supplement
ADDITIONS				
Contributions				
Employer contributions	\$ 156,158,391	\$ 154,101,396	\$ 238,485,820	\$ 236,104,362
Plan member				
Annuities	48,809,966	48,809,966	46,409,238	46,409,238
Death benefits	149,963	149,963	143,009	143,009
Total plan member contributions	48,959,929	48,959,929	46,552,247	46,552,247
Investment income (loss)				
Net appreciation (depreciation) in fair value of investments	40,957,812	40,957,812	(15,720,238)	(15,720,238)
Interest	8,071,511	8,071,511	8,291,214	8,291,214
Dividends	10,686,533	10,686,533	12,015,670	12,015,670
Less investment expenses	59,715,856	59,715,856	4,586,646	4,586,646
Net investment income (loss)	(5,006,920)	(5,006,920)	(5,459,951)	(5,459,951)
Securities lending				
Income	1,005,661	1,005,661	482,937	482,937
Borrower rebates	(135,212)	(135,212)	218,439	218,439
Management fees	(217,200)	(217,200)	(174,957)	(174,957)
Net securities lending income	653,249	653,249	526,419	526,419
Gift Fund donations	4,680	4,680	4,680	4,680
Miscellaneous income	1,814	1,814	2,461	2,461
Tax levy interest	4,157	4,157	2,599	2,599
Interest on settlement	5,514,764	5,514,764	7,939,849	7,939,849
Total additions	266,005,920	263,948,925	292,640,770	290,259,312
				Health Insurance Supplement
				\$ 2,381,458

**FIREMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO**  
**COMBINING STATEMENTS OF CHANGES IN PENSION PLAN FIDUCIARY NET POSITION AND HEALTH INSURANCE SUPPLEMENT PLAN NET POSITION**

YEARS ENDED DECEMBER 31, 2016 AND 2015

	2016			2015		
	<u>Total</u>	<u>Pension</u>	<u>Health Insurance Supplement</u>	<u>Total</u>	<u>Pension</u>	<u>Health Insurance Supplement</u>
<b>DEDUCTIONS</b>						
<b>Benefits</b>						
Age and service benefits						
Employees	\$ 224,451,968	\$ 224,451,968	\$ -	\$ 214,127,585	\$ 214,127,585	\$ -
Spouses	32,905,931	32,905,931	-	33,090,899	33,090,899	-
Dependents	969,126	969,126	-	1,034,355	1,034,355	-
Total age and service benefits	<u>258,327,025</u>	<u>258,327,025</u>	<u>-</u>	<u>248,252,839</u>	<u>248,252,839</u>	<u>-</u>
Disability benefits						
Duty	15,400,377	15,400,377	-	16,515,784	16,515,784	-
Occupational	8,022,899	8,022,899	-	8,404,918	8,404,918	-
Ordinary	159,866	159,866	-	95,813	95,813	-
Total disability benefits	<u>23,583,142</u>	<u>23,583,142</u>	<u>-</u>	<u>25,016,515</u>	<u>25,016,515</u>	<u>-</u>
Gift Fund payments	500,000	500,000	-	500,000	500,000	-
Death benefits	675,600	675,600	-	690,400	690,400	-
Total benefits	<u>283,085,767</u>	<u>283,085,767</u>	<u>-</u>	<u>274,459,754</u>	<u>274,459,754</u>	<u>-</u>
Administrative expenses	3,216,823	3,216,823	-	3,149,549	3,149,549	-
Annuitant health care	2,056,995	-	2,056,995	2,381,458	-	2,381,458
Litigation settlement	60,385	60,385	-	-	-	-
Refunds of contributions	3,673,250	3,673,250	-	3,557,317	3,557,317	-
Total deductions	<u>292,093,220</u>	<u>290,036,225</u>	<u>2,056,995</u>	<u>283,548,078</u>	<u>281,166,620</u>	<u>2,381,458</u>
NET INCREASE (DECREASE)	(26,087,300)	(26,087,300)	-	9,092,692	9,092,692	-
<b>NET POSITION</b>						
Beginning of year	1,045,101,093	1,045,101,093	-	1,036,008,401	1,036,008,401	-
End of year	<u>\$ 1,019,013,793</u>	<u>\$ 1,019,013,793</u>	<u>\$ -</u>	<u>\$ 1,045,101,093</u>	<u>\$ 1,045,101,093</u>	<u>\$ -</u>

See accompanying notes to financial statements.

# FIREMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

## NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 2016 AND 2015

### NOTE 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

**Financial Reporting Entity** - Accounting principles generally accepted in the United States of America define a financial reporting entity as consisting of the primary government and its component units for which the primary government is financially accountable. Financial accountability includes appointing a voting majority of a component unit's governing board, the ability of a primary government to impose its will on the component unit, or a potential for a component unit to provide specific financial benefits to or impose specific financial burdens on the primary government. The Plan has determined that no other outside entity meets the above criteria and, therefore, no other entity has been included as a component unit in the Plan's financial statements.

Based on the above criteria, the Firemen's Annuity and Benefit Fund of Chicago (the Plan) is considered to be a fiduciary fund of the City of Chicago, Illinois (the City) and is included in the City's financial statements.

**New Accounting Pronouncement** - The Plan has implemented Governmental Accounting Standards Board (GASB) Statement No. 72, *Fair Value Measurement and Application* (GASB 72), which addresses accounting and financial reporting issues related to fair value measurements. GASB 72 provides guidance for determining a fair value measurement for financial reporting purposes and applying fair value to certain investments and disclosures related to all fair value measurements.

**Method of Accounting** - The financial statements are presented using the accrual basis of accounting. Employer contributions are recognized as income pursuant to legal requirements as specified by the Illinois Compiled Statutes (the Statutes). Plan member contributions are recognized in the period in which the contributions are due. Benefits and refunds 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. Where less than an entire investment holding is sold, average value is used to determine realized gain or loss.

**Capital Assets** - The Plan has set a capitalization threshold of \$100,000 for all capital asset types. As of December 31, 2016 and 2015, the Plan does not have any capital assets.



## **NOTE 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)**

**Estimates** - The preparation of financial statements in conformity with 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.

**Subsequent Events** - Subsequent events have been evaluated through June 28, 2017, which is the date the financial statements were available to be issued.

## **NOTE 2. PLAN DESCRIPTION**

The Plan was established in 1931 and is governed by legislation contained in the Statutes, particularly 40 ILCS, Act 5, Article 6 (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 established for the purpose of providing retirement and disability benefits for employees of the City of Chicago employed under the provisions of the Municipal Personnel Ordinance as fire service and for the dependents of such employees.

The Statutes authorize a Board of Trustees (the Board) of eight members to carry out the provisions of the Article. According to the Article, four members of the Board are ex officio and four are elected by the employee members of the Plan. The four ex officio members are the City Treasurer, the City Clerk, the City Comptroller and the Deputy Fire Commissioner. All members of the Board of Trustees 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.

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 benefit and to have exclusive original jurisdiction in all matters relating to or affecting the Plan. The Board approves its own budget prepared by the Plan's administrative staff. The Board is required annually to submit to the City Council of the City of Chicago a detailed report of the financial affairs and status of the reserves of the Plan. Provisions in other articles of 40 ILCS require the Board to submit its annual audit and actuarial valuation reports to the State of Illinois Department of Insurance, as well as another detailed annual report, the form and content of which are specified by the Department of Insurance.

The Plan provides retirement benefits, as well as, death and disability benefits. Employees who reach compulsory retirement age of 63, except for emergency medical technicians, which is age 65, with at least 10 years of service and less than 20 years of service are entitled to receive an annuity of 30% of average salary for the first ten years of service plus an additional 2% for each year in excess of 10 years with partial City contributions to a maximum of 50%.

**NOTE 2. PLAN DESCRIPTION (CONTINUED)**

At age 50 or more with 10 or more but less than 20 years of service, a Tier 1 employee is entitled to an annuity of the entire sum accumulated for age and service annuity from deductions from salary, plus 1/10 of the sum accumulated from contributions by the City for each completed year of service after the first 10 years. For Tier 2 employees, the annuity is based on an accrual rate of 2.5% reduced by one half of one percent per month for retirement prior to age 55, subject to a maximum of 75%.

Employees with at least 20 years of service are entitled to receive a minimum formula annuity upon attainment of age 50 for Tier 1 employees and age 55 for Tier 2 employees, of 50% of final average salary plus an additional amount equal to 2.5% of final average salary for each year of service or fraction thereof in excess of 20 years of service. For Tier 1 employees, final average salary is based on the highest average annual salary for any four consecutive years within the last ten years of service immediately preceding the date of retirement. For Tier 2 employees, the final average salary is based on 96 consecutive months within the last 120 months, capped at \$106,800 indexed annually at the lesser of 3% and 50% of the Consumer Price Index (CPI-U). This annuity shall not exceed 75% of the final average salary. The monthly annuity is increased by 3% of the original annuity at the first of the month following the later of age 55 or the first anniversary of retirement and by 3% each first day of January thereafter, if born before January 1, 1966 (January 1, 1955 for year ended December 31, 2015). There is no limit on the increases. If born after January 1, 1966 (January 1, 1955 for the year ended December 31 2015), the monthly annuity is increased by 1.5% of the original annuity at the first of the month following the later of age 60 or the first anniversary of retirement and 1.5% on each first day of January thereafter, but not to exceed a total increase of 30%.

Participants should refer to the applicable State Statutes for more complete information.

Any employee of the City employed under the provisions of the Municipal Personnel Ordinance as fire service is covered by the Plan. At December 31, 2016 and 2015, participation in the Plan consisted of the following:

	<u>2016</u>	<u>2015</u>
Retirees and beneficiaries currently receiving benefits	4,777	4,729
Terminated plan participants entitled to but not yet receiving benefits	88	76
Active plan participants	<u>4,760</u>	<u>4,735</u>
Total participants	<u>9,625</u>	<u>9,540</u>

**NOTE 3. EMPLOYER'S PENSION LIABILITY**

**Net Pension Liability**

The components of the city's net pension liability of the Plan for the years ended December 31, 2016 and 2015 are as follows:

	<u>2016</u>	<u>2015</u>
Total pension liability	\$ 5,149,258,197	\$ 4,826,084,038
Plan fiduciary net position	<u>1,019,013,793</u>	<u>1,045,101,093</u>
City's net pension liability	<u>\$ 4,130,244,404</u>	<u>\$ 3,780,982,945</u>
Plan fiduciary net position as a percentage of the total pension liability	<u>19.79%</u>	<u>21.66%</u>

See the schedule of changes in the city's net pension liability and related ratios in the required supplementary information for additional information related to the funded status of the Plan.

### NOTE 3. EMPLOYER'S PENSION LIABILITY (CONTINUED)

#### Net Pension Liability (continued)

The net pension liabilities were determined by actuarial valuations performed as of December 31, 2016 and 2015 using the following actuarial methods and assumptions:

Actuarial valuation date	December 31, 2016 and 2015
Actuarial cost method	Entry-Age Normal
Asset valuation method	5 year smoothed market
Actuarial assumptions:	
Inflation	2.50%, per year
Salary increases	3.75%, per year, plus additional service based increases
Investment rate of return	7.50%, per year
Retirement age	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the December 31, 2011, valuation pursuant to an experience study of the period January 1, 2003, through December 31, 2010.
Mortality	RP-2000 Combined Health Mortality Table, sex distinct. The mortality table used is a static table and provide an estimated margin of 15 percent for future mortality improvements as of the experience study performed as of December 31, 2011.
Disabled mortality	RP-2000 Combined Health Mortality Table, sex distinct, set forward six years.
Pre-retirement mortality	80 percent of the post-retirement rates.
Postretirement annuity increases	Tier 1 participants - 1.50% simple interest for 20 years for members born after January 1, 1966 (January 1, 1955 for 2015), 3.00% simple interest for life for members born before January 1, 1966 (January 1, 1955 for 2015). Tier 2 participants - the lesser of 3.0% or one half of the increase in the Consumer Price Index.

The actuarial assumptions used in the December 31, 2016 and 2015 valuations were based on the results of an actuarial experience study conducted by Gabriel Roeder Smith & Company for the period of January 1, 2003 through December 31, 2010, which was adopted and effective as of December 31, 2011.

**NOTE 3. EMPLOYER'S PENSION LIABILITY (CONTINUED)**

**Discount Rate**

The blended discount rates used to measure the total pension liability at December 31, 2016 and 2015 were 7.30% and 7.16%, respectively. The projection of cash flows used to determine the discount rate assumed that member contributions will be made at the current contribution rate and that employer contributions will be made at rates as specified by the Statutes. Based on those assumptions, the Plan's fiduciary net position and future contributions are insufficient to make all projected future benefit payments of current plan members. Municipal bond rates of 3.78% and 3.57% at December 31, 2016 and 2015, respectively, and a long-term investment rate of return of 7.50% were used in the development of the blended discount rates. The municipal bond rates were from the Federal Reserve statistical release (H.15) and described as Bond Buyer Index, general obligation, 20 years to maturity, mixed quality.

**Discount Rate Sensitivity**

The following is an analysis of the net pension liability's sensitivity to changes in the discount rate at December 31, 2016 and 2015. The following table presents the net pension liability of the city using the blended discount rate as well as the city's net pension liability calculated using a discount rate 1 percent lower and 1 percent higher than the current discount rate:

	1% Decrease 6.30%	Current Discount Rate 7.30%	1% Increase 8.30%
City's Net Pension Liability - December 31, 2016	<u>\$ 4,700,967,631</u>	<u>\$ 4,130,244,404</u>	<u>\$ 3,644,822,548</u>
	1% Decrease 6.16%	Current Discount Rate 7.16%	1% Increase 8.16%
City's Net Pension Liability - December 31, 2015	<u>\$ 4,311,377,843</u>	<u>\$ 3,780,982,945</u>	<u>\$ 3,329,105,704</u>

**NOTE 4. SUMMARY OF EMPLOYER FUNDING POLICIES**

Covered employees are required to contribute 9.125% of their salary to the Plan. If an employee leaves covered employment without qualifying for an annuity, accumulated contributions are refunded with statutory interest.

The City, for its employer portion, is required by the Statutes to contribute the remaining amounts necessary to finance the requirements of the Plan. Public Act 99-0506, enacted into law on May 30, 2016, specifies the amounts of contributions to be paid by the City as follows:

<u>Plan year ending December 31,</u>	<u>Required Statutory Contribution</u>
2015	\$ 199,000,000
2016	\$ 208,000,000
2017	\$ 227,000,000
2018	\$ 235,000,000
2019	\$ 245,000,000

Beginning with the Plan year ending December 31, 2020, the City is required to fund the Plan on an actuarial basis sufficient to produce a funding level of 90% by the year ended December 31, 2055.

**NOTE 5. 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. The pension code legislation can be amended only by the Illinois Legislature.

The Prior Service Annuity Reserve is a reserve account for the accumulation of City contributions to provide for: a) employee and spouse annuities that are based on service performed before the Plan's effective date of July 1, 1931 and b) any excess in minimum annuity formula requirements over the amounts required for age and service annuities, and for spouse annuities.

The City Contribution Reserve 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 maintained for each employee and spouse until the employee retires, at which time the individual account balances are transferred to the Annuity Payment Reserve.

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

**NOTE 5. RESERVES FOR ACTUARIAL LIABILITIES (CONTINUED)**

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

The Death Benefit Reserve accumulates contributions from employees and the City for ordinary death benefits. All ordinary death benefits paid are charged to this reserve.

The Ordinary Disability Reserve accumulates contributions from employees and the City for ordinary disability benefits. All ordinary disability benefits paid are charged to this reserve.

The Supplementary Payment Reserve accumulates amounts to provide automatic annual postretirement increases to employee annuitants who retired before September 1, 1959 and amounts in excess of the original annuity grant due to increases in the minimum annuity.

The Gift Reserve accumulates donations to be used to provide an extra benefit to widowed spouse annuitants and orphaned child annuitants.

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

Net position restricted for pensions as of December 31, 2016 and 2015 were comprised of the following reserve surplus (deficit) balances:

	<u>2016</u>	<u>2015</u>
Prior Service Annuity Reserve	\$ 2,187,704,567	\$ 1,985,027,095
City Contribution Reserve	834,958,773	818,548,860
Annuity Payment Reserve	1,051,808,490	993,495,418
Salary Deduction Reserve	688,378,161	674,895,147
Death Benefit Reserve (deficit)	(18,807,011)	(17,741,308)
Ordinary Disability Reserve	511,694	469,272
Supplementary Payment Reserve	(65,982)	7,933
Gift Reserve	10,706,237	9,098,559
Reserve (deficit)	<u>(3,736,181,136)</u>	<u>(3,418,699,883)</u>
Total fiduciary net position for pension benefits	<u>\$ 1,019,013,793</u>	<u>\$ 1,045,101,093</u>

## NOTE 6. INVESTMENTS

### Investment Policies

The Board of Trustees is responsible for establishing reasonable and consistent investment objectives, policies and guidelines governing the investment of Plan assets in accordance with the Statutes. 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 “prudent person” provisions of the Statutes. All of the Plan’s financial instruments are consistent with the permissible investments outlined in the Statutes and any index-linked financial instruments are limited to those indices that replicate the permissible investments outlined in the Statutes. During the years ended December 31, 2016 and 2015, there were no significant changes to the investment policies.

### Long-Term Expected Rate of Return

The Plan’s investment policies in accordance with the Statutes establish the following target allocation across asset classes:

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long-term Expected Real Rate of Return</u>
Domestic fixed income	21.00%	3.00%
Cash deposits & short-term investments	4.00%	2.25%
Domestic large cap equities	24.00%	7.50%
Domestic small cap equities	16.00%	7.85%
International equities	25.00%	7.50%
Private equities	3.00%	8.50%
Real estate	2.00%	6.15%
Alternative investments	2.00%	5.25%
Commodities	<u>3.00%</u>	2.75%
Total	<u>100.00%</u>	

The long-term expected real rate of return on the Plan’s investments was determined using a formal asset allocation study conducted by the Plan’s investment management consultant in September 2011 in which best-estimate ranges of expected future real rates of return (net of pension plan investment expense and inflation) were developed for each major assets class. These ranges were combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates or arithmetic real rates of return for each major asset class included in the Plan’s target asset allocation are listed in the preceding table.



## **NOTE 6. INVESTMENTS (CONTINUED)**

### **Annual Money-Weighted Rate of Return**

The annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 7.5% and (0.1)% for the years ended December 31, 2016 and 2015, respectively. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

### **Credit Risk**

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. 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 Plan establishes minimum investment rating guidelines for each investment manager based on their area of concentration and level of allowable risk. The following table presents a summarization at December 31, 2016 and 2015 of the lowest credit quality rating of investments in corporate bonds, foreign government obligations, short-term investments, and fixed income mutual funds as valued by Moody's Investors Service and/or Standard & Poor's, as applicable.

**NOTE 6. INVESTMENTS (CONTINUED)**

**Credit Risk (continued)**

<u>Type of Investment</u>	<u>Rating</u>	<u>2016</u>	<u>2015</u>
Cash deposits and short-term investments	Not Rated	\$ 66,904,580	\$ 66,939,944
Corporate bonds	Aaa/AAA	\$ 3,466,761	\$ 5,184,224
	Aa/AA	2,931,745	1,910,922
	A/A	13,971,213	14,067,137
	Baa/BBB	41,586,196	41,277,014
	Ba/BB	19,280,962	16,164,774
	B/B	7,740,062	7,672,590
	Caa/CCC	3,464,173	2,710,257
	Ca/CC	355,454	747,681
	C/C	268,508	-
	D/D	426,159	355,587
	Not Rated	9,339,899	8,444,316
U.S. Government Guaranteed		9,753,310	9,277,509
		<u>\$ 112,584,442</u>	<u>\$ 107,812,011</u>
Pooled funds - fixed income	Aa/AA	\$ 17,417,372	\$ 15,717,362
	A/A	850,851	-
	Ba/BB	2,772,448	-
	B/B	2,121,108	5,083,457
		<u>\$ 23,161,779</u>	<u>\$ 20,800,819</u>
U.S. and Foreign Government obligations	Aaa/AAA	\$ 22,177,760	\$ 12,149,802
	Aa/AA	7,727,039	7,515,638
	A/A	2,936,797	3,213,581
	Baa/BBB	1,231,712	1,627,313
	Ba/BB	1,506,762	904,302
	B/B	532,338	-
	Caa/CCC	-	28,381
	Not Rated	3,150,002	2,327,782
U.S. Government Guaranteed		24,781,117	27,802,643
		<u>\$ 64,043,527</u>	<u>\$ 55,569,442</u>

**NOTE 6. INVESTMENTS (CONTINUED)****Interest Rate Risk**

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. Investments held for longer periods are subject to increased risk of adverse interest rate changes. Investments are diversified to minimize the risk of loss resulting from over-concentration of assets in a specific maturity period, a single issuer, or an individual class of securities. The Plan requires investment managers to display an overall level of interest rate risk that is consistent with the benchmark specified by the Plan. The following table presents a summarization of debt investments at December 31, 2016 and 2015 using the segmented time distribution method:

<u>Type of Investment</u>	<u>Maturity</u>	<u>2016</u>	<u>2015</u>
Cash deposits and short-term investments	Less than 1 year	\$ 66,904,580	\$ 66,939,944
Corporate bonds	Less than 1 year	\$ 1,895,768	\$ 1,918,487
	1-5 years	18,250,142	16,614,801
	5-10 years	50,543,033	41,175,720
	Over 10 years	41,895,499	48,103,003
		<u>\$ 112,584,442</u>	<u>\$ 107,812,011</u>
Pooled funds - fixed income	1-5 years	\$ 3,623,299	\$ 2,092,171
	5-10 years	19,538,480	18,708,648
		<u>\$ 23,161,779</u>	<u>\$ 20,800,819</u>
U.S. and Foreign Government obligations	Less than 1 year	\$ 12,932,609	\$ 4,160,926
	1-5 years	10,342,345	12,379,961
	5-10 years	12,745,140	13,353,671
	Over 10 years	28,023,433	25,674,884
		<u>\$ 64,043,527</u>	<u>\$ 55,569,442</u>

**NOTE 6. INVESTMENTS (CONTINUED)****Foreign Currency Risk**

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or a deposit. The Plan requires investment managers to invest in at least ten countries if investing in foreign obligations and/or equities. The Plan's exposure to foreign currency risk at December 31, 2016 and 2015 is as follows:

<u>Type of Investment</u>	Fair Value (USD) <u>2016</u>	Fair Value (USD) <u>2015</u>
Corporate bonds:		
Australian dollar	\$ 261,665	\$ 492,920
Brazilian real	86,644	213,892
European euro	65,362	70,565
Mexican peso	713,704	578,370
U.S. dollar	<u>111,457,067</u>	<u>106,456,264</u>
	<u>\$ 112,584,442</u>	<u>\$ 107,812,011</u>
U.S. and Foreign Government obligations:		
Brazilian real	\$ 571,424	\$ 429,079
Chilean peso	-	276,367
Chinese yuan	347,455	376,426
Colombian peso	471,586	443,708
European euro	30,335	28,381
Indian rupee	-	262,433
Japanese yen	321,065	-
Mexican peso	2,149,608	2,648,702
Russian ruble	546,001	-
U.S. dollar	<u>59,606,053</u>	<u>51,104,346</u>
	<u>\$ 64,043,527</u>	<u>\$ 55,569,442</u>

NOTE 6. INVESTMENTS (CONTINUED)

Foreign Currency Risk (continued)

<u>Type of Investment</u>	Fair Value (USD) <u>2016</u>	Fair Value (USD) <u>2015</u>
Equities:		
Australian dollar	\$ 3,815,575	\$ 3,168,134
Brazilian real	5,550,321	3,193,608
British pound	27,799,034	33,251,695
Canadian dollar	8,070,623	4,777,475
Chilean peso	334,457	140,437
Colombian peso	270,999	-
Czech koruna	95,675	123,242
Danish krone	635,811	1,585,894
Egyptian pound	135,720	175,865
European euro	42,528,139	42,951,628
Hong Kong dollar	13,581,586	13,687,977
Hungarian forint	517,061	223,077
Indian rupee	4,110,500	4,239,988
Indonesian rupiah	1,643,011	1,019,373
Israeli shekel	146,502	235,290
Japanese yen	34,431,374	35,198,932
Malaysian ringgit	948,114	1,003,531
Mexican peso	1,180,452	1,579,492
New Zealand dollar	238,057	258,393
Norwegian krone	1,216,168	388,975
Pakistan rupee	116,056	379,601
Philippines peso	216,245	178,333
Polish zlotych	336,266	912,231
Singapore dollar	830,904	743,233
South African rand	3,343,198	2,985,339
South Korean won	10,810,970	8,758,551
Swedish krona	3,702,857	2,954,168
Swiss franc	7,227,847	6,829,314
Taiwan dollar	4,376,135	5,529,458
Thailand baht	1,562,545	2,201,430
Turkish lira	1,004,754	392,740
United Arab Emirates dirham	149,349	-
U.S. dollar	339,359,920	338,357,170
	<u>\$ 520,286,225</u>	<u>\$ 517,424,574</u>

## NOTE 6. INVESTMENTS (CONTINUED)

### Additional Investment Disclosures

During 2016 and 2015, net realized gain on investments sold, reflecting the difference between the proceeds received and cost value of securities sold, was \$19,372,488 and \$61,728,194 respectively. These amounts are included in the net appreciation (depreciation) in fair value of investments as reported on the combining statements of changes in pension plan fiduciary net position and health insurance supplement plan net position. The calculation of realized gains and losses is independent of the calculation of net appreciation (depreciation) in the fair value of plan investments. Investments purchased in a previous year and sold in the current year result in their realized gains and losses being reported in the current year and their net appreciation (depreciation) in plan assets being reported in both the current year and the previous year(s).

The Plan does not isolate that portion of net appreciation (depreciation) in fair value of investments resulting from changes in the foreign exchange rate on investments from fluctuations arising from changes in the market prices of the securities. Such fluctuations are included with net appreciation (depreciation) in fair value of investments. Net realized gains and (losses) on foreign currency transactions represent net exchange gains or losses on closed foreign currency contracts, disposition of foreign currencies, and the difference between the amount of investment income and foreign withholding taxes recorded on the Plan's books and the U.S. dollar equivalent amounts actually received or paid. Net unrealized gains and (losses) on foreign currency transactions arise from changes in the value of open foreign currency contracts and assets and liabilities other than investments at the year end, resulting from changes in the exchange rate.

## NOTE 7. FAIR VALUE MEASUREMENTS

GASB Statement No. 72, *Fair Value Measurement and Application*, established a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy are described below:

### Basis of Fair Value Measurement

Level 1	Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities
Level 2	Quoted prices in markets that are not considered to be active or financial instruments for which all significant inputs are observable, either directly or indirectly
Level 3	Prices or valuations that require inputs that are both significant to the fair value measurement and unobservable

**NOTE 7. FAIR VALUE MEASUREMENTS (CONTINUED)**

The Plan categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The Plan has the following recurring fair value measurements as of December 31, 2016 and 2015:

		Fair Value Measurements at 12/31/2016 Using			
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	
		Total			
Investments by fair value level					
Cash deposits and short-term investments	\$ 36,816,569	\$ 6,180,818	\$ 30,635,751	\$ -	
Corporate bonds	112,584,442	-	112,584,442	-	
Equities	520,286,225	520,286,225	-	-	
Pooled funds	5,514,022	5,514,022	-	-	
U.S. and Foreign Government obligations	64,043,527	-	64,043,527	-	
Total investments by fair value level	739,244,785	<u>\$ 531,981,065</u>	<u>\$ 207,263,720</u>	<u>\$ -</u>	
Investments measured at net asset value	75,146,290				
Total investments at fair value	<u>\$ 814,391,075</u>				
		Fair Value Measurements at 12/31/2015 Using			
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	
		Total			
Investments by fair value level					
Cash deposits and short-term investments	\$ 11,339,403	\$ 4,103,317	\$ 7,236,086	\$ -	
Corporate bonds	107,812,011	-	107,812,011	-	
Equities	517,424,574	517,424,574	-	-	
Pooled funds	6,676,079	6,676,079	-	-	
U.S. and Foreign Government obligations	55,569,442	-	55,569,442	-	
Total investments by fair value level	698,821,509	<u>\$ 528,203,970</u>	<u>\$ 170,617,539</u>	<u>\$ -</u>	
Investments measured at net asset value	103,684,355				
Total investments at fair value	<u>\$ 802,505,864</u>				

**NOTE 7. FAIR VALUE MEASUREMENTS (CONTINUED)**

Level 1 Measurements

Cash deposits, equities, and pooled funds are traded in active markets on national and international securities exchanges and are valued at closing prices on the measurement date.

Level 2 Measurements

Short-term investments, corporate bonds, and U.S. Government and Foreign Government obligations are generally valued by benchmarking model-derived prices to quoted market prices and trade data for identical or comparable securities. To the extent that quoted prices are not available, fair value is determined based on a valuation model that include inputs such as interest rate yield curves and credit spreads. Securities traded in markets that are not considered active are valued based on quoted market prices, broker to dealer quotations, or alternative pricing sources with reasonable levels of price transparency. Securities that trade infrequently and therefore have little or no price transparency are valued using the investment manager's best estimates.

The valuation methods for investments measured at net asset value (NAV) are presented on the following table:

	Fair Value		Unfunded Commitments	Redemption Frequency (If Eligible)	Redemption Notice Period
	12/31/2016	12/31/2015			
Investments measured at net asset value					
Short-term investments (1)	\$ 30,088,011	\$ 55,600,541	\$ -	Daily	N/A
Pooled funds (2)	23,161,779	20,800,819	-	Daily	N/A
Private equity and venture capital (3)	21,896,500	27,282,995	11,402,854	Closed-end	N/A
Total	<u>\$ 75,146,290</u>	<u>\$ 103,684,355</u>			

- (1) Short-term investments - This investment's objective is to invest in short-term investments of high quality and low risk to protect capital while achieving investment returns. The fair value of the investment in the fund has been determined using the NAV per share of the investment.
- (2) Pooled funds - This investment is made up of four funds with an investment objective to maximize the total return. The fair value of the investments in this type has been determined using the NAV per share of the investments.



## NOTE 7. FAIR VALUE MEASUREMENTS (CONTINUED)

- (3) Private equity and venture capital - This investment consists of twelve limited partnership investments with an investment objective to achieve long-term capital appreciation, preserve capital, and achieve a consistent pattern of returns through investments in limited partnerships, privately issued securities, private equity funds, and other pooled investments with a focus on the venture sector and undervalued alternative investments. Closed-end limited partnership interests are generally illiquid and cannot be redeemed. It is expected that the liquidation of the limited partnership interests will generally coincide with the terms of the various partnership agreements. The limited partnership termination dates range from March 31, 2017 to September 21, 2024 but may be terminated earlier or extended later as set forth in the terms of the applicable partnership agreement. The fair value of the investments in this type has been determined using the NAV per share (or its equivalent) of the investments.

## NOTE 8. SECURITIES LENDING

The Statutes and the Board of Trustees permit the Plan to lend its securities to broker-dealers and other entities with a simultaneous agreement to return collateral for the same securities in the future. The Plan's custodian, acting as the lending agent, lends securities for collateral in the form of cash, U.S. Government obligations and irrevocable letters of credit equal to 102% of the fair value of domestic securities plus accrued interest and 105% of the fair value of foreign securities plus accrued interest. The Plan is not restricted as to the type or amount 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 48 days in 2016 and 53 days in 2015; 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 at December 31, 2016 and 2015 of 28 days and 47 days, respectively. Cash collateral may also be invested in term loans in which the investments (term loans) match the term of the securities loaned.

As of December 31, 2016 and 2015, the fair value (carrying amount) of loaned securities was \$119,669,227 and \$135,778,017 respectively. As of December 31, 2016 and 2015, the fair value (carrying amount) of cash collateral received by the Plan was \$123,059,048 and \$140,197,357 respectively. The cash collateral is included as an asset and a corresponding liability on the statements of plan net position.

Although the Plan's securities lending activities are collateralized as described above, they involve both market and credit risk. In this context, market risk refers to the possibility that the borrower of securities will be unable to collateralize the loan upon a sudden material change in the fair value of the loaned securities. Credit risk refers to the possibility that counterparties involved in the securities lending program may fail to perform in accordance with the terms of their contracts.

## NOTE 8. SECURITIES LENDING (CONTINUED)

Indemnification deals with the situation in which a client's securities are not returned due to the insolvency of a borrower. The contract with the lending agent requires it 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.

There were no losses due to default of a borrower or the lending agent during the years ended December 31, 2016 and 2015.

A summary of securities loaned at fair value as of December 31:

	<u>2016</u>	<u>2015</u>
Corporate bonds	\$ 11,866,690	\$ 8,543,365
Equities	100,503,199	123,823,761
U.S. and Foreign Government obligations	<u>7,299,338</u>	<u>3,410,891</u>
Total	<u>\$ 119,669,227</u>	<u>\$ 135,778,017</u>

## NOTE 9. DERIVATIVES

The Plan invests in derivative financial instruments as provided by the Plan's statement of investment policy. The Plan uses derivative financial instruments to gain exposure to an asset class or manage portfolio risk. A derivative security is a financial contract whose value is based on, or "derived" from, a traditional security, an asset, or a market index. Derivative instruments include options, forward contracts, swaps, and futures as part of the Plan's portfolio. Derivative transactions involve, to varying degrees, credit risk, interest rate 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 the previously agreed upon terms. Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. 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.

**NOTE 9. DERIVATIVES (CONTINUED)**

The Plan's portfolio includes the following derivative instruments at December 31, 2016 and 2015:

<u>Derivative</u>	2016		2015	
	<u>Notional Value</u>	<u>Fair Value</u>	<u>Notional Value</u>	<u>Fair Value</u>
Options	\$ -	\$ (19,069)	\$ -	\$ 32,609
Futures purchase commitments	(61,456,770)	-	(56,181,868)	-
Futures sales commitments	61,456,770	-	56,181,868	-
Swap assets	9,904,000	235,447	6,616,146	28,986
Swap liabilities	<u>(1,460,000)</u>	<u>(57,243)</u>	<u>(792,000)</u>	<u>(29,229)</u>
Total	<u>\$ 8,444,000</u>	<u>\$ 159,135</u>	<u>\$ 5,824,146</u>	<u>\$ 32,366</u>

The Plan uses options to reduce the risk of holding an asset. An option is a contract that conveys the right, but not the obligation, to buy (call) or sell (put) an item at an agreed upon price during a certain period of time or on a specific date. For the years ended December 31, 2016 and 2015, the options expire approximately one to three months after year end.

Futures contracts are used to provide exposure to an asset class using uninvested cash. These contracts are a legally binding agreement, made on the trading floor of a futures exchange, to buy or sell a commodity or financial instrument sometime in the future. Futures contracts have little credit risk, as organized exchanges are the guarantors. For the year ended December 31, 2016, the futures contracts mature from one month to sixteen months after year end. For the year ended December 31, 2015, the futures contracts mature from one month to 2 years after year end.

Swaps are used by the Plan to hedge certain risks such as interest rate risk, or to speculate on changes in the underlying price of an asset. Traditionally, a swap is the exchange of one security for another to change the maturity, quality, structure of an issue, or because investment objectives have changed. For the year ended December 31, 2016, the swaps have maturity dates ranging from June 2021 through June 2026. For the year ended December 31, 2015, the swaps have maturity dates ranging from September 2021 through June 2036.

The Plan's derivative instruments are reported at fair value in equity investments on the combining statements of pension plan fiduciary net position and health insurance supplement plan net position. The gain or loss on derivative instruments is reported as part of investment income on the combining statements of changes in pension plan fiduciary net position and health insurance supplement plan net position.

**NOTE 10. EMPLOYER CONTRIBUTIONS RECEIVABLE - NET**

Employer contributions due and not paid prior to year end are recorded as contributions receivable and are reserved for uncertain collections. The allowance for uncollectible accounts is based on the likelihood of future collections. Employer contributions receivable at December 31, 2016 and 2015 consist of the following:

	<u>2016</u>	<u>2015</u>
Employer contributions receivable for	\$ 216,072,633	\$ 252,886,411
Less allowance for uncollectible accounts	<u>(15,686,804)</u>	<u>(13,560,007)</u>
Total	<u>\$ 200,385,829</u>	<u>\$ 239,326,404</u>

**NOTE 11. HEALTH INSURANCE SUPPLEMENT PLAN**

**Plan Description**

The City offers group health benefits to annuitants and their eligible dependents through the City of Chicago Annuitant Medical Benefits Program (the Program). The Plan and the City share in the cost of providing health care coverage to the annuitants or their surviving spouses who elect to participate in the Program. The Plan, in accordance with State Statutes, subsidizes the cost of monthly group health care premiums up to \$95 per month for non-Medicare recipients and \$65 per month for Medicare recipients. The remaining cost to participate in the Program is borne by the City and the annuitant.

Public Act 98-0043, effective June 28, 2013, terminates the retiree healthcare subsidy paid by the Plan after December 31, 2016.

At December 31, 2016 and 2015, the number of annuitants or surviving spouses whose cost to participate in the Program was subsidized totaled 566 and 2,829 respectively.

**NOTE 11. HEALTH INSURANCE SUPPLEMENT PLAN (CONTINUED)**

**Summary of Significant Accounting Policies**

**Valuation Date** - December 31, 2015

**Actuarial Cost Method** - Entry age normal

**Actuarial Value of Assets** - No assets (pay-as-you-go)

**Amortization Method** - Level dollar

**Amortization Period** - 3 year closed period commencing December 31, 2013

**Healthcare Investment Rate of Return** - 4.5% per year

**OPEB Investment Rate of Return** - 4.5% per year

**Health Care Cost Trend Rate** - 0.0% (fixed dollar subsidy)

**Projected Salary Increases** - 3.75% per year, plus an additional percentage related to service and promotion

**Method of Accounting** - The Health Insurance Supplement Plan's financial statements have been combined with the Plan's financial statements and are presented using the accrual basis of accounting. The Plan considers the premium subsidy an additional retirement benefit, with no contribution rate or asset allocation associated with it.

**Contributions** - The Plan funds the Health Insurance Supplement Plan on a "pay-as-you-go" basis.

**Administrative Costs** - Administrative costs associated with the Health Insurance Supplement Plan are paid by the Plan's employer contributions.

**Actuarial Valuations** - Actuarial valuations of the Plan involve estimates of the value of reported amounts and assumptions about the probability of events far into the future. Actuarially determined amounts are subject to continual revision as results are compared to past expectations and new estimates are made about the future. Actuarial calculations of the Plan reflect a long-term perspective and are based on the benefits provided under the terms of the Plan in effect at the time of each valuation and on the historical pattern of sharing of costs between the employer and Plan members to that point.

## **NOTE 11. HEALTH INSURANCE SUPPLEMENT PLAN (CONTINUED)**

### **Funded Status and Funding Progress**

As of December 31, 2015, the most recent actuarial valuation date, the Health Insurance Supplement Plan was 0% funded on an actuarial basis. The actuarial accrued liability for benefits was \$2,398,609 and the actuarial value of assets was \$0, resulting in an unfunded actuarial accrued liability (UAAL) of \$2,398,609. The covered payroll (annual payroll of active employees covered by the Plan) was \$465,231,594 and the ratio of the UAAL to the covered payroll was 0.52%.

The schedule of funding progress, presented as required supplementary information (RSI) following the notes to the financial statements, presents multi-year trend information about whether the actuarial values of the Plan assets are increasing or decreasing over time relative to the actuarial accrued liability for benefits.

## **NOTE 12. 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. Participation in the deferred compensation plan is optional. The deferred compensation is managed by a third party administrator. 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 13. RELATED PARTY TRANSACTIONS**

The Plan has allowed the Ende, Menzer, Walsh & Quinn Retirees', Widows' and Children's Assistance Fund (the Corporation) to utilize its facilities and equipment to accommodate the once a year distribution to widows and orphans in December at no additional expense to the Plan. This distribution by the Corporation, to the widows and orphans, had been handled by the Plan.

Three of the Plan's Trustees and the Executive Director are also directors of the Ende, Menzer, Walsh & Quinn Retirees', Widows' and Children's Assistance Fund.

During both of the years ended December 31, 2016 and 2015, the Firemen's Annuity and Benefit Fund of Chicago contributed to the Ende, Menzer, Walsh & Quinn Retirees', Widows' and Children's Assistance Fund from the balances in the gift reserve account as allowed under the discretionary authority granted by 40ILCS Act 5, Article 6-202 to render financial assistance to qualified widows and children annuitants of the participants of the Firemen's Annuity and Benefit Fund of Chicago.

#### NOTE 14. LEASE AGREEMENTS

The Plan leases office facilities with lease payments subject to an escalation clause for increases in real estate taxes and maintenance charges. The lease runs through March 2020. Rental expense for 2016 and 2015 was \$246,863 and \$225,472 respectively. Future minimum rental payments required under the noncancelable operating lease is as follows:

Year ending December 31,	
2017	\$ 123,307
2018	127,221
2019	131,136
2020	<u>33,273</u>
Total	<u>\$ 414,937</u>

#### NOTE 15. PRONOUNCEMENTS ISSUED NOT YET EFFECTIVE

In June 2015, GASB issued Statement No. 73, *Accounting and Financial Reporting for Pensions and Related Assets that are not within the Scope of GASB Statement No. 68, and Amendments to Certain Provisions of GASB Statements 67 and 68*. Statement No. 73 establishes requirements for pension plans that are not administered through a trust (not covered by Statements 67 and 68). The requirements in Statement No. 73 for reporting pensions generally are the same as Statement 68, however, the lack of a trust that meets specified criteria is reflected in the measurements. Statement No. 73 is effective for the Plan's fiscal year ending December 31, 2016, except for provisions that address employers and governmental nonemployer contributing entities for pensions that are not within the scope of GASB Statement No. 68, which are effective for the Plan's fiscal year ending December 31, 2017.

In June 2015, GASB issued Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*. Statement No. 74 replaces the requirements of Statement No. 43, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*. This Statement addresses the financial reports of defined benefit Other Postemployment Benefit Plans that are administered through trusts that meet specified criteria. The Statement requires more extensive note disclosures and required supplementary information related to the measurement of the other postemployment benefit liabilities for which assets have been accumulated, including information about the annual money-weighted rates of return on plan investments. Statement No. 74 is effective for the Plan's fiscal year ending December 31, 2017.

In June 2015, GASB issued Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. Statement No. 75 replaces the requirements of Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*. Statement No. 75 requires governments to report a liability on the financial statements for the other postemployment benefits that they provide. Statement No. 75 also requires more extensive note disclosures and required supplementary information about the other postemployment benefit liabilities. Statement No. 75 is effective for the Plan's fiscal year ending December 31, 2018.

**NOTE 15. PRONOUNCEMENTS ISSUED NOT YET EFFECTIVE (CONTINUED)**

In January 2016, GASB issued Statement No. 80, *Blending Requirements for Certain Component Units - an amendment of GASB Statement No. 14*. Statement No. 80 amends the blending requirements for the financial statement presentation of component units of all state and local governments established in Statement No. 14, *The Financial Reporting Entity*, as amended. Statement No. 80 is effective for the Plan's fiscal year ending December 31, 2017.

In March 2016, GASB issued Statement No. 81, *Irrevocable Split-Interest Agreements*. Statement No. 81 improves accounting and financial reporting for irrevocable split-interest agreements by providing recognition and measurement guidance for situations in which a government is a beneficiary of the agreement. Statement No. 81 is effective for the Plan's fiscal year ending December 31, 2017.

In March 2016, GASB issued Statement No. 82, *Pension Issues - an amendment of GASB Statements No. 67, No. 68, and No. 73*. Statement No. 82 addresses issues regarding (1) the presentation of payroll-related measures in required supplementary information, (2) the selection of assumptions and the treatment of deviations from the guidance in an Actuarial Standard of Practice for financial reporting purposes, and (3) the classification of payments made by employers to satisfy employee (plan member) contribution requirements. Statement No. 82 is effective for the Plan's fiscal year ending December 31, 2017.

In November 2016, GASB issued Statement No. 83, *Certain Asset Retirement Obligations*. Statement No. 83 addresses accounting and financial reporting for certain asset retirement obligations and establishes criteria for determining the timing and pattern of recognition of a liability and a corresponding deferred outflow of resources for asset retirement obligations. Statement No. 83 is effective for the Plan's fiscal year ending December 31, 2019.

In January 2017, GASB issued Statement No. 84, *Fiduciary Activities*. Statement No. 84 improves guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes and how those activities should be reported. Statement No. 84 is effective for the Plan's fiscal year ending December 31, 2019.

In March 2017, GASB issued Statement No. 85, *Omnibus 2017*. Statement No. 85 addresses practice issues that have been identified during implementation and application of certain GASB Statements. It addresses a variety of topics including issues related to blending component units, goodwill, fair value measurement and application, and postemployment benefits (pensions and other postemployment benefits (OPEB)). Statement No. 85 is effective for the Plan's fiscal year ending December 31, 2018.



**NOTE 15. PRONOUNCEMENTS ISSUED NOT YET EFFECTIVE (CONTINUED)**

In May 2017, GASB issued Statement No. 86, *Certain Debt Extinguishment Issues*. Statement No. 86 was issued to improve consistency in accounting and financial reporting for in-substance defeasance of debt by providing guidance for transactions in which cash and other monetary assets acquired with only existing resources are placed in an irrevocable trust for the sole purpose of extinguishing debt. Statement No. 86 also improves accounting and financial reporting for prepaid insurance on debt that is extinguished and notes to financial statements for debt that is defeased in substance. Statement No. 86 is effective for the Plan's fiscal year ending December 31, 2018.

The Plan is currently evaluating the impact of adopting the above GASB Statements.

**REQUIRED SUPPLEMENTARY INFORMATION - PENSION**

**FIREMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO**  
**REQUIRED SUPPLEMENTARY INFORMATION - PENSION**

**SCHEDULE OF CHANGES IN THE CITY'S NET PENSION LIABILITY AND RELATED RATIOS**

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Total pension liability			
Service cost	\$ 94,115,473	\$ 87,203,153	\$ 83,095,601
Interest	342,084,603	338,986,636	329,965,941
Changes of benefit terms	227,212,695	-	-
Difference between expected and actual experience	24,110,158	(7,980,712)	88,448,895
Changes of assumptions	(74,372,930)	176,281,502	(261,571,672)
Expected benefit payments	(283,085,767)	(274,459,754)	(2,321,666)
Refunds of employee contributions	(3,673,250)	(3,557,317)	(3,069,192)
Pension plan administrative expense	(3,216,823)	(3,149,549)	-
Net change in total pension liability	<u>323,174,159</u>	<u>313,323,959</u>	<u>234,547,907</u>
Total pension liability	<u>4,826,084,038</u>	<u>4,512,760,079</u>	<u>4,278,212,172</u>
Beginning of year	<u>\$ 5,149,258,197</u>	<u>\$ 4,826,084,038</u>	<u>\$ 4,512,760,079</u>
End of year			
Plan fiduciary net position			
Contributions - employer	\$ 154,101,396	\$ 236,104,362	\$ 107,334,399
Contributions - employee	48,959,929	46,552,247	48,056,393
Net investment income	60,881,106	7,595,562	30,867,889
Expected benefit payments, including refunds of employee contributions	(283,085,767)	(274,459,754)	(261,571,672)
Refunds of employee contributions	(3,673,250)	(3,557,317)	(2,321,666)
Administrative expenses	(3,216,823)	(3,149,549)	(3,069,192)
Other	(53,891)	7,141	7,393
Net change in plan fiduciary net position	<u>(26,087,300)</u>	<u>9,092,692</u>	<u>(80,696,456)</u>
Plan fiduciary net position			
Beginning of year	<u>1,045,101,093</u>	<u>1,036,008,401</u>	<u>1,116,704,857</u>
End of year	<u>\$ 1,019,013,793</u>	<u>\$ 1,045,101,093</u>	<u>\$ 1,036,008,401</u>
City's net pension liability	<u>\$ 4,130,244,404</u>	<u>\$ 3,780,982,945</u>	<u>\$ 3,476,751,678</u>
Plan fiduciary net position as a percentage of the total pension liability	<u>19.79%</u>	<u>21.66%</u>	<u>22.96%</u>
Covered-employee payroll	<u>\$ 478,470,944</u>	<u>\$ 465,231,594</u>	<u>\$ 460,189,982</u>
Employer's net pension liability as a percentage of covered-employee payroll	<u>863.22%</u>	<u>812.71%</u>	<u>755.50%</u>

Note: This schedule is intended to show information for ten years. The additional years' information will be displayed as it becomes available.

See Report of Independent Auditors.

**FIREMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO**  
**REQUIRED SUPPLEMENTARY INFORMATION - PENSION**  
**SCHEDULE OF CITY CONTRIBUTIONS AND RELATED NOTES**

LAST TEN FISCAL YEARS

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Actuarially determined contribution	\$ 333,952,291	\$ 323,544,987	\$ 304,265,411	\$ 294,877,895	\$ 271,505,718	\$ 250,056,273	\$ 218,388,037	\$ 203,866,919	\$ 189,940,561	\$ 188,201,379
Contributions in relation to the actuarially determined contribution	(154,101,396)	(236,104,362)	(107,334,399)	(103,669,015)	(81,521,883)	(82,869,839)	(80,947,311)	(89,211,671)	(81,257,754)	(72,022,810)
Contribution deficiency	\$ 179,850,895	\$ 87,440,625	\$ 196,931,012	\$ 191,208,880	\$ 189,983,835	\$ 167,186,434	\$ 137,440,726	\$ 114,655,248	\$ 108,682,807	\$ 116,178,569
Covered employee payroll	\$ 478,470,944	\$ 465,231,594	\$ 460,189,982	\$ 416,491,784	\$ 418,964,763	\$ 425,385,354	\$ 400,404,320	\$ 400,912,173	\$ 396,181,778	\$ 389,124,547
Contributions as a percentage of covered employee payroll	32.21%	50.75%	23.32%	24.89%	19.46%	19.48%	20.22%	22.25%	20.51%	18.51%

**Notes to Schedule**

Valuation Date: December 31, 2016

Methods and assumptions used to determine contribution rates as of valuation date:

Actuarial cost method Entry Age Normal

Amortization method

Prior to 2015, the total City contribution was generated by a tax equal to 2.26 times the contributions by the firemen to the Plan two years prior to the year of the tax levy. For years 2015-2019, the statutory contributions are \$199 million, \$208 million, \$227 million, \$235 million and \$245 million, respectively. For years on and after 2020, the statutory contributions are equal to a level percentage of pay contribution determined so that the Plan attains a 90 percent funded ratio by the end of 2055 on an open group basis.

Remaining amortization period

Asset valuation method Not applicable

Inflation 2.50% per year

Salary increases 7.50% per year

Investment rate of return

Retirement age

Experience-based table of rates that are specific to the type of eligibility condition.

Last updated for the December 31, 2011 valuation, pursuant to an experience study of the period January 1, 2003 through December 31, 2010.

RP-2000 Combined Health Mortality Table, sex distinct for post-retirement mortality.

RP-2000 Combined Health Mortality Table, sex distinct, set forward six years for post-retirement mortality and post-disabled mortality. Pre-retirement mortality is 80 percent of the post-retirement rates.

Mortality

A retiree born before January 1, 1966 (January 1, 1955 for 2015), with at least 20 years of service or receiving a mandatory retirement minimum annuity, receives an increase of 3 percent of the original annuity, starting on the first of the month following the first anniversary of his retirement or the first of the month following attainment of age 55, whichever is later, and shall not be subject to a 30 percent maximum increase. For retirees born after January 1, 1966 (January 1, 1955 for 2015), automatic increases are 1.5 percent of the original annuity, commencing at age 60, or the first anniversary of retirement, if later, to a maximum of 30 percent. For participants that first became members on or after January 1, 2011, increases are equal to the lesser of 3.00 percent and 50 percent of CPI-U of the original benefit, commencing at age 60.

Postretirement annuity increases

A retiree born before January 1, 1966 (January 1, 1955 for 2015), with at least 20 years of service or receiving a mandatory retirement minimum annuity, receives an increase of 3 percent of the original annuity, starting on the first of the month following the first anniversary of his retirement or the first of the month following attainment of age 55, whichever is later, and shall not be subject to a 30 percent maximum increase. For retirees born after January 1, 1966 (January 1, 1955 for 2015), automatic increases are 1.5 percent of the original annuity, commencing at age 60, or the first anniversary of retirement, if later, to a maximum of 30 percent. For participants that first became members on or after January 1, 2011, increases are equal to the lesser of 3.00 percent and 50 percent of CPI-U of the original benefit, commencing at age 60.

**FIREMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO**

**REQUIRED SUPPLEMENTARY INFORMATION - PENSION**

**SCHEDULE OF INVESTMENT RETURNS**

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Annual money-weighted rate of return, net of investment expense	<u>7.5%</u>	<u>-0.1%</u>	<u>3.4%</u>

Annual money-weighted rate of return, net of investment expense

Note: This schedule is intended to show information for ten years. The additional years' information will be displayed as it becomes available.

See Report of Independent Auditors.

**REQUIRED SUPPLEMENTARY INFORMATION -  
HEALTH INSURANCE SUPPLEMENT**

**FIREMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO**  
**REQUIRED SUPPLEMENTARY INFORMATION - HEALTH INSURANCE SUPPLEMENT**  
**SCHEDULE OF FUNDING PROGRESS**

Year Ended <u>December 31,</u>	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll (b-a)/(c)
2011	\$ -	\$ 46,980,335	\$ 46,980,335	0.00%	\$ 425,385,354	11.04%
2012	\$ -	\$ 46,205,891	\$ 46,205,891	0.00%	\$ 418,964,763	11.03%
2013 (1)	\$ -	\$ 7,691,833	\$ 7,691,833	0.00%	\$ 416,491,784	1.85%
2014 (1)	\$ -	\$ 4,994,927	\$ 4,994,927	0.00%	\$ 460,189,982	1.09%
2015 (1)	\$ -	\$ 2,398,609	\$ 2,398,609	0.00%	\$ 465,231,594	0.52%
2016 (1)	\$ -	\$ -	\$ -	N/A	\$ 478,470,944	N/A

(1) Public Act 98-0043, effective June 28, 2013, terminates the retiree healthcare subsidy paid by the Plan after December 31, 2016.

See accompanying notes to schedule of funding progress and schedule of employer contributions.

**FIREMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO**

**REQUIRED SUPPLEMENTARY INFORMATION - HEALTH INSURANCE SUPPLEMENT**

**SCHEDULE OF EMPLOYER CONTRIBUTIONS**

<u>Year Ended</u> <u>December 31,</u>	<u>Annual</u> <u>Required</u> <u>Contribution</u> <u>(ARC) (a)</u>	<u>Actual</u> <u>Employer</u> <u>Contribution</u> <u>(b)</u>	<u>Percent of</u> <u>ARC</u> <u>Contributed</u> <u>(b/a)</u>
2011	\$ 4,469,292	\$ 2,628,163	58.80%
2012	\$ 4,275,669	\$ 2,622,445	61.33%
2013	\$ 4,213,697	\$ 2,550,785	60.54%
2014	\$ 2,739,506	\$ 2,471,055	90.20%
2015	\$ 2,611,401	\$ 2,381,458	91.19%
2016	\$ 2,056,995	\$ 2,056,995	100.00%

Note: Public Act 98-0043, effective June 28, 2013, terminates the retiree healthcare subsidy paid by the Plan after December 31, 2016.

See accompanying notes to schedule of funding progress and schedule of employer contributions.



**FIREMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO**

**REQUIRED SUPPLEMENTARY INFORMATION - HEALTH INSURANCE SUPPLEMENT**

**NOTES TO SCHEDULE OF FUNDING PROGRESS AND  
SCHEDULE OF EMPLOYER CONTRIBUTIONS**

The information presented in the required supplementary schedules was determined as part of the actuarial valuation at the date indicated. Additional information as of the latest actuarial valuation follows:

Valuation date	December 31, 2015
Actuarial cost method	Entry Age Normal
Actuarial value of assets	No assets (Pay-as-you-go)
Amortization method	Level Dollar
Amortization period	3 year closed period commencing December 31, 2013
Actuarial assumptions	
Healthcare investment rate of return	4.50% per year
OPEB investment rate of return	4.50% per year
Health care cost trend rate	0.00% (fixed dollar subsidy)
Projected salary increases	2015 - 3.75% per year plus an additional percentage related to service and promotion

Note: Public Act 98-0043, effective June 28, 2013, terminates the retiree healthcare subsidy paid by the Plan after December 31, 2016. The last actuarial valuation was performed as of December 31, 2015.

**SUPPLEMENTARY INFORMATION**

**FIREMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO**

**SUPPLEMENTARY INFORMATION**

**SCHEDULES OF ADMINISTRATIVE EXPENSES**

**YEARS ENDED DECEMBER 31, 2016 AND 2015**

	<u>2016</u>	<u>2015</u>
ADMINISTRATIVE EXPENSES		
Disaster recovery	\$ 26,060	\$ 35,193
Employee benefits	506,337	426,298
Equipment and maintenance	50,991	36,998
General and administrative	149,596	184,091
Insurance and surety bond	159,034	159,170
Office salaries	1,473,202	1,473,802
Printing and postage	80,396	89,382
Professional and consulting fees		
Accounting	-	3,800
Actuarial	97,520	93,940
Audit	42,500	52,000
Consulting	18,307	18,311
Legal	276,130	257,998
Medical	85,525	87,915
Payroll administration	4,362	5,179
Rent	246,863	225,472
Total administrative expenses	<u>\$ 3,216,823</u>	<u>\$ 3,149,549</u>

**FIREMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO**

**SUPPLEMENTARY INFORMATION**

**SCHEDULES OF INVESTMENT EXPENSES**

YEARS ENDED DECEMBER 31, 2016 AND 2015

	<u>2016</u>	<u>2015</u>
<b>INVESTMENT MANAGER EXPENSES</b>		
Adams Street Partners, LLC	\$ 122,658	\$ 129,880
Apollo Global Management, LLC	49,142	61,995
Neuberger Berman - Private Equity	62,511	90,012
Brandes Investment Partners	315,656	358,764
Brown Advisory	197,687	221,905
Chicago Equity Partners, LLC	57,140	68,361
Credit Suisse	10,836	13,662
Earnest Partners, LLC	155,479	145,996
Epoch Investment Partners, Inc.	298,863	346,417
GlobeFlex Capital, L.P.	383,022	445,684
Jackson Square (Formerly Delaware Investments)	212,165	258,429
Keeley Asset Management Corp.	164,844	182,110
Kennedy Capital Management	164,541	201,257
Logan Capital Management, Inc.	141,065	170,039
Loomis, Sayles & Company, L.P.	268,513	263,212
LSV Asset Management	338,773	372,040
Mesirow Financial	64,411	73,130
Muller & Monroe Asset Management, LLC	21,024	6,219
Neuberger Berman	315,971	365,743
Pomona Management, LLC	193,038	169,323
Rhumblin Advisers	14,606	18,765
The Boston Company Asset Management, LLC	147,199	169,466
Wells Fargo (Formerly Metropolitan West Capital Management, LLC)	171,232	205,395
Western Asset Management Company	191,878	193,898
William Blair & Company	313,541	368,899
	<u>4,375,795</u>	<u>4,900,601</u>
<b>OTHER TRADING EXPENSES AND INVESTMENT FEES</b>		
Northern Trust	309,750	247,599
<b>INVESTMENT CONSULTING FEES</b>		
Callan Associates, Inc.	258,125	254,251
<b>INVESTMENT CUSTODIAN FEES</b>		
Northern Trust	<u>63,250</u>	<u>57,500</u>
Total investment expenses	<u>\$ 5,006,920</u>	<u>\$ 5,459,951</u>

**FIREMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO**

**SUPPLEMENTARY INFORMATION**

**ADDITIONS BY SOURCE**

<u>Year Ended</u> <u>December 31,</u>	<u>Employer</u> <u>Contributions</u>	<u>Plan Member</u> <u>Contributions</u>	<u>Net Investment</u> <u>and Net</u> <u>Securities</u> <u>Lending</u> <u>Income (Loss)</u>	<u>Other</u>	<u>Total</u> <u>Additions</u>
2011	\$ 85,498,002	\$ 51,917,510	\$ (22,450,374)	\$ 33,594	\$ 114,998,732
2012	\$ 84,144,328	\$ 53,272,730	\$ 135,196,492	\$ 3,459,687	\$ 276,073,237
2013	\$ 106,219,800	\$ 42,520,218	\$ 190,532,880	\$ (57,079)	\$ 339,215,819
2014	\$ 109,805,454	\$ 48,056,393	\$ 30,863,888	\$ 11,394	\$ 188,737,129
2015	\$ 238,485,820	\$ 46,552,247	\$ (346,886)	\$ 7,949,589	\$ 292,640,770
2016	\$ 156,158,391	\$ 48,959,929	\$ 55,362,185	\$ 5,525,415	\$ 266,005,920

**DEDUCTIONS BY TYPE**

<u>Year Ended</u> <u>December 31,</u>	<u>Benefits</u>	<u>Administrative</u> <u>Expenses</u>	<u>Annuitant</u> <u>Health</u> <u>Care</u>	<u>Other</u>	<u>Total</u> <u>Deductions</u>
2011	\$ 218,897,479	\$ 3,212,515	\$ 2,628,163	\$ 2,565,203	\$ 227,303,360
2012	\$ 228,585,731	\$ 3,063,965	\$ 2,622,445	\$ 3,151,847	\$ 237,423,988
2013	\$ 247,057,741	\$ 3,101,827	\$ 2,550,785	\$ 2,223,407	\$ 254,933,760
2014	\$ 261,571,672	\$ 3,066,946	\$ 2,471,055	\$ 2,323,912	\$ 269,433,585
2015	\$ 274,459,754	\$ 3,149,549	\$ 2,381,458	\$ 3,557,317	\$ 283,548,078
2016	\$ 283,085,767	\$ 3,216,823	\$ 2,056,995	\$ 3,733,635	\$ 292,093,220