

**POLICEMEN'S ANNUITY AND BENEFIT
FUND OF CHICAGO
(A Component Unit of the City of Chicago)**

**Financial Statements and Supplementary Information
For the Years Ended December 31, 2016 and 2015
With Independent Auditor's Report**



MITCHELL TITUS
ACHIEVING EXCELLENCE TOGETHER

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
(A Component Unit of the City of Chicago)
December 31, 2016 and 2015

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INDEPENDENT AUDITOR'S REPORT

Board of Trustees
Policemen's Annuity and Benefit Fund of Chicago

Report on the Financial Statements

We have audited the accompanying financial statements of Policemen's Annuity and Benefit Fund of Chicago (the Fund), a component unit of the City of Chicago, as of and for the years ended December 31, 2016 and 2015, and the related notes to the financial statements, which collectively comprise the Fund's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

The Fund's 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.

Auditor's 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 audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the 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 entity'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 entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

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

333 West Wacker Drive
Chicago, IL 60606
T +1 312 332 4964
F +1 312 332 0181
mitchelltitus.com



Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Fund as of December 31, 2016 and 2015, and the changes in its financial position for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and required supplementary information as listed in the table of contents, 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 inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audits of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary Information

Our audits were conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Fund's basic financial statements. The schedule of administrative expenses, schedule of consulting costs and schedule of investment fees are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The supplementary 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 supplementary information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Mitchell Titus, LLP

June 26, 2017

MANAGEMENT'S DISCUSSION AND ANALYSIS (unaudited)

The Management's Discussion and Analysis section of this report is intended to serve as an introduction to the financial statements of the Policemen's Annuity and Benefit Fund of Chicago (the Fund) and to supplement the information contained therein.

Overview of Financial Statements and Accompanying Information

The basic financial statements are prepared in accordance with accounting principles generally accepted in the United States of America as established by the Governmental Accounting Standards Board (GASB) and are described below:

- **Statements of Fiduciary Net Position** report the Fund's assets, liabilities, and the resultant net position where assets minus liabilities equal net position held in trust for pension benefits at the end of the year.
- **Statements of Changes in Fiduciary Net Position** show the sources and uses of funds during the calendar year, where additions minus deductions equal the net increase or decrease in net position held in trust for pension benefits for the year.
- **Notes to the Financial Statements** are an integral part of the financial statements and include important information and schedules to provide a more comprehensive understanding of the data provided in the financial statements. Information contained in the note disclosures includes the Fund's accounting policies, descriptions of pension and health benefits and related liabilities, detail of investments and related risks, fund reserves, and various other relevant topics.
- **Required Supplementary Information** presents detailed required historical information and is presented after the Notes to the Financial Statements. This required supplementary information includes data on the employer's net pension liability and changes thereof, employer's contribution and money-weighted rate of return for the pension plan; and information on funding progress and employer's contributions for the Health Insurance Supplement and Staff Retiree Health Plan; along with the other information useful in evaluating the fiduciary net position of the Fund.
- **Supplementary Information** presents the detail on costs of maintaining a defined benefit pension plan.

Financial Highlights

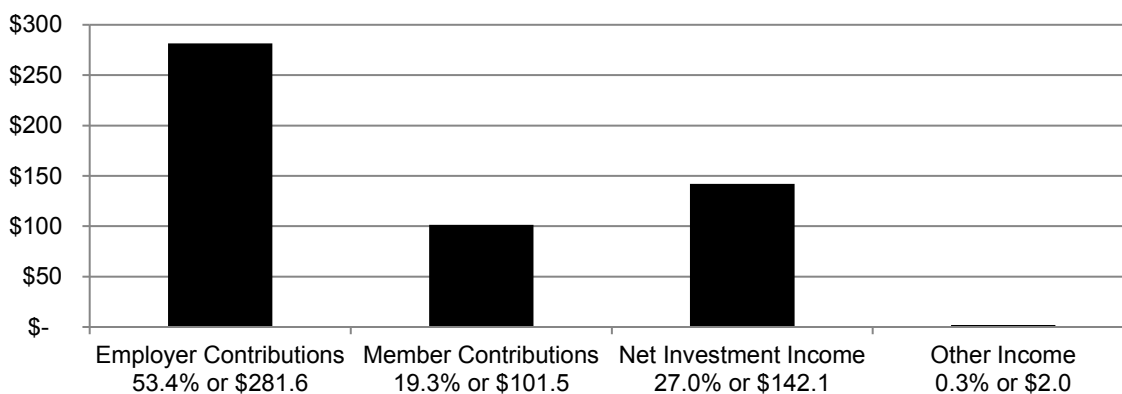
- The fiduciary net position of the Fund decreased by \$193.9 million, or 6.3%, to \$2,865.0 million at December 31, 2016. At December 31, 2015, the fiduciary net position of the Fund decreased by \$3.1 million, or 0.1%, to \$3,058.9 million from the December 31, 2014 balance of \$3,062.0 million.

MANAGEMENT'S DISCUSSION AND ANALYSIS (unaudited)

Financial Highlights (continued)

- Additions to the Fund are received from investment income and employer and plan member pension contributions. These are the primary funding sources for benefit payments. In 2016, these additions totaled \$527.2 million and were \$687.7 million in 2015, which is a 23.3% decrease. Effective May 30, 2016, Public Act 099-0506 (PA-0506) became law. Due to the enactment of PA-0506, the full amount of the 2015 employer contribution receivable of \$582.3 million was not received in 2016. The amount collected was reduced by approximately \$173 million. For financial reporting purposes, this difference of \$173 million was recorded as a reduction to the 2016 employer contributions. The Fund incurred a 2016 investment return of 6.66%, which equated to net investment income of \$142 million versus an investment loss of 0.41% in 2015, which equated into a net investment loss of \$6.0 million. The favorable return in 2016 was mostly attributable to the total equity portfolio returning 6.16%, which comprises over 50% of the Fund's investments. From a financial markets perspective, 2016 was a turbulent year with concerns around slowing global growth in China and falling oil prices. In the first few weeks of the year, this rattled the stock indices but reassuring economic data triggered a dramatic reversal at the end of the first quarter. Major stock indices eventually hit all-time highs in 2016 and the S&P 500 ended up the year 12% higher.

2016 ADDITIONS (DOLLARS IN MILLIONS) \$527.2

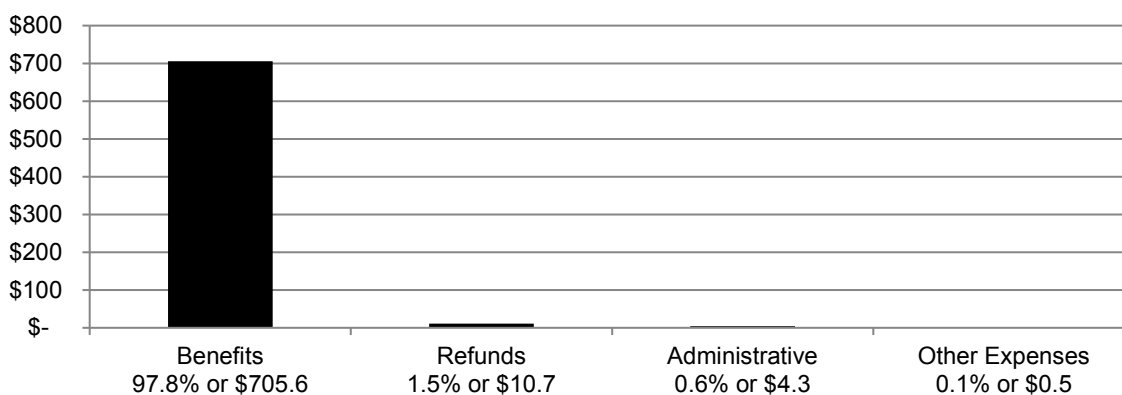


MANAGEMENT'S DISCUSSION AND ANALYSIS (unaudited)

Financial Highlights (continued)

- Deductions to the Fund are incurred primarily for the purpose for which the Policemen's Annuity and Benefit Fund of Chicago was created; providing benefits to the police officers of the City and their widows and children. Deductions consist primarily of pension and disability benefits, death benefits, refunds of employee deductions, and administrative expenses. In 2016, these deductions totaled \$721.1 million and were \$690.7 million in 2015, which is a 4.4% increase. This increase is attributable to the number of retirees and beneficiaries receiving benefit payments, which increased in 2016 by 184 members to 13,394. This is the highest member count in Fund history. Also contributing to this increase is the average benefit payments for new annuities granted in 2016. The average monthly benefit increased to \$5,634 in 2016, or 4.7%, compared to \$5,379 in 2015. Also, the average annual salary used in calculating the average monthly benefit increased to \$98,945 in 2016, or 3.1%, compared to \$96,001 in 2015. The automatic annual increase in annuities for member annuitants and the overall fluctuations in annuity payments contribute to the variances year to year.

2016 DEDUCTIONS (DOLLARS IN MILLIONS) \$721.1



- Benefit payments, excluding death benefits and refunds, increased by approximately \$27.6 million in 2016 to \$704.1 million from \$676.5 million in 2015. Death benefits and refunds of employee deductions increased slightly from 2015 to 2016 by approximately \$2.5 million, from \$9.7 million to \$12.2 million, respectively.
- Administrative expenses increased slightly by approximately \$0.22 million, or 5.4%, from \$4.06 million in 2015 to \$4.28 million in 2016. The increased administrative expense was due primarily to increased legal and custodial services as well as occupancy and utility expenses.

MANAGEMENT'S DISCUSSION AND ANALYSIS (unaudited)

Financial Highlights (continued)

- The funding objective of the Fund is to meet its long-term defined pension benefit obligations. The funding ratio of the Fund on a fair value basis, for purposes of statutory funding, experienced a decrease from 27.1% at December 31, 2015 to 22.3% at December 31, 2016. The decrease reflects a significant increase in the actuarial liability at December 31, 2016, as compared to December 31, 2015. The increase in 2016 due to assumption changes and methods includes the impact of changing the funding policy, investment return assumption and inflation rate assumption used in the funding actuarial valuation, and the change in the municipal bond rate from December 30, 2015 to December 29, 2016. Changes in the actuarial assumptions, methods, plan provisions and statutory funding policy led to the change in the Single Discount Rate from 7.15% to 7.07% (based on the long-term expected rate of return on investments of 7.50% used in the December 31, 2015 actuarial valuation and 7.25% used in the December 31, 2016 actuarial valuation and the long-term municipal bond rate of 3.57% as of December 30, 2015, and 3.78% as of December 29, 2016, respectively). The inflation rate assumption also decreased from 3.00% to 2.75% for the same years, respectively.
- The Fund adopted GASB Statement No. 67, "Financial Reporting for Pension Plans, an amendment of GASB Statement No. 25", during the year ended December 31, 2014. Adoption of this GASB Statement had no effect on the Fund's fiduciary net position, but changed the approach for measuring pension liabilities. As of December 31, 2016, 2015, and 2014, the Fund's funded ratio was 21.85%, 25.42%, and 26.01%, respectively.
- In compliance with GASB No. 45, the Fund recognizes a liability for other post-employment benefits (OPEB), which represents health insurance coverage for active and retired Fund employees. Expenses of \$0.47 million and \$0.45 million were recognized in 2016 and 2015, respectively, resulting in a total accrued liability of \$2.66 million and \$2.37 million as of December 31, 2016 and 2015, respectively.

MANAGEMENT'S DISCUSSION AND ANALYSIS (unaudited)

Fiduciary Net Position

A summary of fiduciary net position is presented below:

Fiduciary Net Position

(In millions)

As of December 31, 2016, 2015, and 2014

	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2016–2015</u> <u>Change</u>	
				<u>\$</u>	<u>%</u>
Receivables	\$ 460.2	\$ 591.6	\$ 195.3	\$ (131.4)	(22.2)%
Brokers–unsettled trades	114.3	89.8	117.3	24.5	27.3
Investments, at fair value	2,485.2	2,520.3	2,970.4	(35.1)	(1.4)
Invested securities lending cash collateral	<u>177.8</u>	<u>93.1</u>	<u>288.5</u>	<u>84.7</u>	<u>91.0</u>
Total assets	<u>3,237.5</u>	<u>3,294.8</u>	<u>3,571.5</u>	<u>(57.3)</u>	<u>(1.7)</u>
Brokers–unsettled trades	186.9	135.5	214.1	51.4	37.9
Securities lending payable	177.8	93.1	288.5	84.7	91.0
OPEB obligation	2.7	2.4	2.1	0.3	12.5
Refunds and accounts payable	<u>5.1</u>	<u>4.9</u>	<u>4.8</u>	<u>0.2</u>	<u>4.1</u>
Total liabilities	<u>372.5</u>	<u>235.9</u>	<u>509.5</u>	<u>136.6</u>	<u>57.9</u>
Net position	<u>\$ 2,865.0</u>	<u>\$ 3,058.9</u>	<u>\$ 3,062.0</u>	<u>\$ (193.9)</u>	<u>(6.3)%</u>

Overall, the fiduciary net position decreased \$193.9 million, or 6.3%, mainly due to the excess of annuity, disability, and death benefit payments over the total net investment income, employer contributions, and member contributions received.

The net decrease in receivables is due to Public Act 96-0506 (PA-0506), effective May 30, 2016, which became law and replaced Public Act 96-1495 (PA-1495). The funding provisions of PA-0506 are significantly different than PA-1495, which was in effect for 2015. Pursuant to PA-0506, the funding policy was amended and requires City contributions to be equal to \$420 million in payment year 2016. Subsequent collections of each tax levy year are as follows: 2017 - \$464 million; 2018 - \$500 million; 2019 - \$557 million; and 2020 - \$579 million. For the payment years 2020 through 2055, the City is required to make percent of pay contributions that, along with member contributions and investment earnings, are expected to generate a projected funded ratio of 90% by plan year-end 2055.

MANAGEMENT'S DISCUSSION AND ANALYSIS (unaudited)

Changes in Fiduciary Net Position

The following table reflects a comparative summary of various changes in fiduciary net position:

Changes in Fiduciary Net Position

(In millions)

Years Ended December 31, 2016, 2015 and 2014

	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2016-2015</u> <u>Change</u>	
				<u>\$</u>	<u>%</u>
ADDITIONS					
Member contributions	\$ 101.5	\$ 107.6	\$ 95.7	\$ (6.1)	(5.7)%
Employer contributions	281.6	582.3	187.0	(300.7)	(51.6)
Net investment gain (loss) and investment income	142.1	(6.0)	180.7	148.1	(2,468.3)
Securities lending income	0.6	0.7	1.2	(0.1)	(14.3)
Miscellaneous income	<u>1.4</u>	<u>3.1</u>	<u>0.7</u>	<u>(1.7)</u>	<u>(54.8)</u>
Total additions	<u>527.2</u>	<u>687.7</u>	<u>465.3</u>	<u>(160.5)</u>	<u>(23.3)</u>
DEDUCTIONS					
Annuity, disability, and death benefits	705.6	678.4	655.3	27.2	4.0
Refunds of contributions	10.7	7.8	9.0	2.9	37.2
OPEB expense	0.5	0.4	0.4	0.1	25.0
Administrative expenses	<u>4.3</u>	<u>4.1</u>	<u>3.8</u>	<u>0.2</u>	<u>4.9</u>
Total deductions	<u>721.1</u>	<u>690.7</u>	<u>668.5</u>	<u>30.4</u>	<u>4.5</u>
Net increase/(decrease)	<u>\$ (193.9)</u>	<u>\$ (3.0)</u>	<u>\$ (203.2)</u>	<u>\$ (190.9)</u>	<u>6,363.3%</u>

The Fund experienced a decrease in fiduciary net position of \$(193.9) in 2016. Due to the enactment of PA-0506, the 2015 employer contributions were not collected in their entirety. The amount collected was approximately \$173 million less than recorded in 2015. For financial reporting purposes, this amount was reflected as a reduction to the 2016 employer contributions.

Investment Activities

The strategic allocation was unchanged in 2016. Long-term targets include: 21% for U.S. Equity, 20% for non-U.S. Equity, 22% for Fixed Income and Cash, 19% for Tactical and Alpha Strategies, 4% for Real Assets, 7% for Private Equity, 5% for Real Estate, and 2% for Infrastructure.

MANAGEMENT'S DISCUSSION AND ANALYSIS (unaudited)

Investment Activities (continued)

The Fund continues to prudently implement the strategic allocation approved by the Board of Trustees in late 2010. In 2016, eight new investment managers were hired, of which, four managers were for the fixed income allocation; one manager was for the hedge fund allocation; one manager was for a short-term investment fund; one manager was for a real estate fund and one manager was for an infrastructure fund.

Investment Returns

Years Ended December 31, 2016, 2015 and 2014

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Total fund (%)	6.66%	(0.41)%	6.24%
Equities	6.16	(1.30)	4.26
Fixed income	4.36	(1.07)	6.03
Alternatives	8.02	(5.35)	1.87
Private capital	7.89	9.72	18.03
Cash and cash equivalents	0.58	0.14	0.07

Private capital consists of investments in private equity, real estate and infrastructure. Alternative investments consist of fund of hedge fund investments and global tactical allocations.

Plan Membership

The following table reflects the Plan membership as of December 31, 2016, 2015 and 2014.

Plan Membership

As of December 31, 2016, 2015 and 2014

	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2016-2015</u>	
				<u>Change</u>	<u>%</u>
Retirees and beneficiaries receiving benefits	13,394	13,210	13,230	184	1.4%
Active employees	12,177	12,061	12,020	116	1.0
Terminated (inactive members) employees entitled to benefits or refunds of contributions	<u>606</u>	<u>637</u>	<u>630</u>	<u>(31)</u>	<u>(4.9)</u>
Total	<u>26,177</u>	<u>25,908</u>	<u>25,880</u>	<u>269</u>	<u>1.0%</u>

MANAGEMENT'S DISCUSSION AND ANALYSIS (unaudited)

Funding Status

The funding ratio of the Fund on a fair value basis, for purposes of statutory funding, experienced a decrease from 27.1% at December 31, 2015 to 22.3% at December 31, 2016. For accounting purposes, the Fund adopted GASB No. 67 for the year ended December 31, 2014. This accounting standard requires that that projected benefit payments are required to be disclosed to their actuarial present values using a single discount rate that reflects (1) a long-term expected rate of return on pension plan investments (to the extent that the plan's fiduciary net position is projected to be sufficient to pay benefits) and (2) a tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average 'AA' credit rating. Using this methodology and accounting standard, the funding ratios of the Fund at December 31, 2016 and 2015 were 21.9% and 25.4%, respectively.

The valuations as of December 31, 2016 and 2015 reflect the results of an experience review, completed by the Fund's actuary, of the economic and demographic assumptions of the Fund for the period January 1, 2009 through December 31, 2013. This experience review was completed in early 2015.

In 2016, certain assumptions were changed which included the investment return assumption and the inflation rate assumption. Actuarial information presented as of December 31, 2016 reflects these assumption changes.

The law in effect prior to May 30, 2016, Public Act 96-1495, required that the City of Chicago make level percent of pay contributions for plan years 2015 through 2040 that, along with member contributions and investment earnings, would generate a projected funded ratio of 90% by plan year-end 2040. Based upon the statutory provisions of PA 096-1495 and related calculations provided by the Fund's actuary, the contributions receivable from the City of Chicago was \$580 million as of December 31, 2015.

Effective May 30, 2016, Public Act 096-1495 was changed by Public Act 099-0506. The funding provisions of Public Act 099-0506 are significantly different than those of Public Act 096-1495. In accordance with Public Act 099-0506, the funding policy was amended and requires the contributions from the City of Chicago to be equal to \$420 million in payment year 2016, \$464 million in payment year 2017; \$500 million in payment year 2018; \$557 million in payment year 2019; and \$579 million in payment year 2020. For payment years after 2020, the City of Chicago is required to make level percent of pay contributions for plan years 2020 through 2055 that, along with member contributions and investment earnings, are expected to generate a projected funded ratio of 90% by plan year-end 2055.

Public Act 99-0905 (PA 99-0905) became effective November 29, 2016. PA 99-0905 extended the 3% annual cost-of-living increases to participants born after December 31, 1954 but before January 1, 1966, first payable at the later of age 55 or one year from their retirement date. In addition, under PA-0905, the minimum benefit for annuitants and widows cannot be less than 125% of the Federal poverty level.

MANAGEMENT'S DISCUSSION AND ANALYSIS (unaudited)

Contact Information

This financial report is designed to provide the employer, plan participants, and others with a general overview of the Fund's finances and to show accountability for the monies received. Questions concerning any data provided in this report can be submitted to:

Ms. Regina M. Tuczak
Executive Director
Policemen's Annuity and Benefit Fund of Chicago
221 N. LaSalle
Suite 1626
Chicago, IL 60601

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

(A Component Unit of the City of Chicago)

Statements of Fiduciary Net Position

As of December 31, 2016 and 2015

	<u>2016</u>	<u>2015</u>
ASSETS		
Cash	\$ 250	\$ 250
<i>Receivables</i>		
Employer tax levies, net of allowance for loss of \$33,657,561 in 2016 and \$26,714,401 in 2015	449,291,702	579,815,440
Member contributions	4,912,517	4,815,841
Interest and dividends	5,990,469	6,986,788
Accounts receivable—due from brokers	114,331,679	89,831,833
	<u>574,526,367</u>	<u>681,449,902</u>
<i>Investments, at fair value</i>		
U.S. common stock and other equity	495,799,608	460,460,737
Collective investment funds, stock	241,200,644	289,918,902
Collective investment funds, international equities	22,500,765	22,143,930
Collective investment funds, fixed income	146,788,365	125,887,254
Collective investment funds, international fixed income	103,159,063	87,226,783
International equity	572,324,412	618,856,305
U.S. bonds and notes	499,507,343	509,988,771
International bonds and notes	35,949,360	37,781,677
Short-term instruments	94,260,116	73,066,300
Infrastructure	26,030,921	38,932,764
Forward contracts and swaps	19,302,497	9,359,323
Hedge fund-of-funds	20,739,009	9,954,440
Real estate	74,675,801	80,387,687
Venture capital and private equity	132,946,934	156,327,767
	<u>2,485,184,838</u>	<u>2,520,292,640</u>
Invested securities lending cash collateral	177,836,930	93,088,584
Total assets	<u>3,237,548,385</u>	<u>3,294,831,376</u>
LIABILITIES		
Refunds and accounts payable	5,124,515	4,868,168
Trade accounts payable—due to brokers	186,906,407	135,551,728
Securities lending cash collateral	177,836,930	93,088,584
OPEB obligation	2,661,729	2,373,859
Total liabilities	<u>372,529,581</u>	<u>235,882,339</u>
Net position held in trust for pension benefits	<u>\$ 2,865,018,804</u>	<u>\$ 3,058,949,037</u>

The accompanying notes are an integral part of these financial statements.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

(A Component Unit of the City of Chicago)

Statements of Changes in Fiduciary Net Position

For the Years Ended December 31, 2016 and 2015

	<u>2016</u>	<u>2015</u>
ADDITIONS		
<i>Contributions</i>		
Employer	\$ 281,583,230	\$ 582,277,634
Plan member salary deductions	101,475,864	107,626,311
Total contributions	<u>383,059,094</u>	<u>689,903,945</u>
<i>Investment income</i>		
Net appreciation (depreciation) in in the fair value of investments	105,369,451	(51,940,312)
Interest	17,485,571	19,171,732
Dividends	25,491,062	28,870,113
Real estate income	3,092,121	7,159,475
	<u>151,438,205</u>	<u>3,261,008</u>
<i>Investment activity expenses</i>		
Investment management fees	(8,528,425)	(8,552,490)
Custodial fees	(312,500)	(257,093)
Investment consulting fees	(507,596)	(504,207)
Total investment activity expenses	<u>(9,348,521)</u>	<u>(9,313,790)</u>
Net income (loss) from investing activities	<u>142,089,684</u>	<u>(6,052,782)</u>
<i>From securities lending activities</i>		
Securities lending income	535,566	776,834
Borrower rebates	167,649	121,757
Bank fees	(93,775)	(179,604)
Net income from securities lending activities	<u>609,440</u>	<u>718,987</u>
Total net investment income (loss)	<u>142,699,124</u>	<u>(5,333,795)</u>
Miscellaneous income	<u>1,412,770</u>	<u>3,091,545</u>
Total additions	<u>527,170,988</u>	<u>687,661,695</u>
DEDUCTIONS		
Pension and disability benefits	704,076,617	676,482,414
Death benefits	1,570,000	1,909,200
Refunds of employee deductions	10,704,842	7,826,847
	<u>716,351,459</u>	<u>686,218,461</u>
Administrative expenses	4,280,280	4,062,553
OPEB expense	469,482	445,966
Total deductions	<u>721,101,221</u>	<u>690,726,980</u>
Net decrease	(193,930,233)	(3,065,285)
<i>Net position held in trust for pension benefits</i>		
Beginning of year	<u>3,058,949,037</u>	<u>3,062,014,322</u>
End of year	<u>\$ 2,865,018,804</u>	<u>\$ 3,058,949,037</u>

The accompanying notes are an integral part of these financial statements.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

(A Component Unit of the City of Chicago)

Notes to Financial Statements

Years Ended December 31, 2016 and 2015

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Reporting Entity

Generally accepted accounting principles in the United States (U.S. GAAP), as established by the Governmental Accounting Standards Board (GASB), 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 the primary government to impose its will on the component unit, or a potential for the component unit to provide specific financial benefits to or impose specific financial burdens on the primary government. A primary government may also be financially accountable for its component units.

Based on the above criteria, the Policemen's Annuity and Benefit Fund of Chicago (the Fund, or PABF) is considered to be a component unit of the City of Chicago (the City). The Fund is part of the City's financial reporting entity and is included in the City's fiduciary statement of net assets as pension trust funds.

Basis of Accounting

The Fund's financial statements are prepared on the accrual basis of accounting. Employee and employer contributions are recognized as additions in the period in which employee services are performed. Benefits and refunds are recognized as deductions when payable. Expenses are recorded when the corresponding liabilities are incurred, regardless of when payment is made.

Use of Estimates

The preparation of financial statements in accordance with U.S. GAAP requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results may differ from those estimates.

Investments

The Fund is authorized to invest in bonds, notes, and other direct obligations of the U.S. Government and U.S. Government agencies; corporate bonds, debentures, and notes; certain notes secured by mortgages, including pass-through securities; common and preferred stocks; certain pooled funds; limited partnerships; real estate; derivatives; currencies and other types of investment vehicles as set forth in the Illinois Compiled Statutes.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

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Notes to Financial Statements

Years Ended December 31, 2016 and 2015

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Method Used to Value Investments

Investments are reported at fair value. Short-term investments are reported at cost, which approximates fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Fixed-income securities are valued principally using quoted market prices provided by independent pricing services. For collective investments, net asset value (NAV) is determined and certified by the investment managers as of the reporting date. Real estate investments are valued at estimated fair value as determined by the general partner, based upon appraisals provided by the investment manager. Hedge fund, venture capital, private equity, infrastructure, and certain opportunistic investments are reported at estimated fair value as determined by the general partner of the investment vehicle.

Furniture and Office Equipment

Furniture and office equipment are not capitalized as they are immaterial and are charged to expenses in the year of purchase.

Administrative Expenses

Administrative expenses are recorded as incurred and are budgeted and approved by the Fund's Board of Trustees. Administrative expenses are funded by employer contributions.

Income Taxes

Income earned by the Fund is not subject to federal income taxes.

Securities Lending Transactions

Cash received as collateral on securities lending transactions and investments made with that cash are reported as assets in the statements of fiduciary net position at fair value. Securities received as collateral are reported as assets only if the Fund is able to pledge or sell them without a borrower default. Liabilities resulting from these transactions are reported in the statements of fiduciary net position.

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Notes to Financial Statements

Years Ended December 31, 2016 and 2015

NOTE 1 **SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES** *(continued)*

Recent Accounting Pronouncements

The following standards were adopted by the Fund during 2016 and 2015:

GASB Statement No. 72, *Fair Value Measurement and Application*, was effective for the Fund beginning with its year ending December 31, 2016. The objective of this Statement is to address accounting and financial reporting issues related to fair value measurements. The Statement also provides guidance for determining a fair value measurement for financial reporting purposes and for applying fair value to certain investments and disclosures related to all fair value measurements.

Other accounting standards that the Fund is currently reviewing for applicability and potential impact on the financial statements include:

GASB's codification standard on *Accounting and Financial Reporting for Pensions and Related Assets That Are Not within the Scope of GASB 68, and Amendments to Certain Provisions of GASB Statements 67 and 68* addresses improvements to the usefulness of information about pensions included in the general purpose external financial reports of a government employer for making decisions and assessing accountability. The Statement also amends certain provisions of Statement No. 67, *Financial Reporting for Pension Plans*. The provisions of the new standard will be effective for the Fund beginning with its year ending December 31, 2017.

GASB's codification standard on *Pension Issues – an Amendment of GASB Statements No. 67, No. 68, and No. 73* 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 plan member contribution requirements. The provisions of the new standard will be effective for the Fund beginning with its year ending December 31, 2017.

The GASB's codification standard on *Omnibus 2017* 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)). The provisions of the new standard will be effective for the Fund beginning with its year ending December 31, 2018.

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NOTE 2 PENSION PLAN

Plan Description and Contribution Information

PABF is the administrator of a defined benefit, single-employer pension plan with a defined contribution minimum for the purpose of providing benefits to the police officers of the City and their widows and children. Any City employee employed under the provisions of the municipal personnel ordinance as police service is covered by the Fund. The defined benefits, as well as the employer and employee contribution levels, are mandated in Illinois Compiled Statutes (40 ILCS Act 5, Article 5) and may be amended only by the Illinois State Legislature. The Fund is governed by an eight-member Board of Trustees (four appointed by the City, three elected by the policemen, and one elected by the annuitants) whose duties are to administer the Fund under the Illinois Pension Code. The City's payrolls for employees covered by the Fund for the years ended December 31, 2016 and 2015 were \$1,119,526,987 and \$1,086,607,979, respectively. At December 31, 2016 and 2015, the Fund's membership consisted of the following:

	<u>2016</u>	<u>2015</u>
Active employees	12,177	12,061
Retirees and beneficiaries currently receiving benefits	13,394	13,210
Terminated employees entitled to benefits or a refund of contributions, but not yet receiving them	<u>606</u>	<u>637</u>
	<u><u>26,177</u></u>	<u><u>25,908</u></u>

The Fund provides retirement benefits as well as death and disability benefits. Employees age 50 or older with at least 10 years of service are entitled to receive a money purchase annuity and partial City contributions if they have completed less than 20 years of service. The mandatory retirement age for a participant is 63. Employees age 50 or older with at least 20 years of service are entitled to receive a minimum formula annuity of 2.5% per year for the first 20 years of service, plus 2.5% per year for each following year or fraction thereof times the final average salary (highest average annual salary for any four consecutive years within the last 10 years of service immediately preceding the date of retirement). The annuity shall not exceed 75% of the highest average annual salary.

For members with at least 20 years of service, the monthly annuity increases by 3% of the original annuity at the first of the month following the later of the attainment of age 55 or the first anniversary of retirement, and by 3% on each January 1 thereafter, if the recipient was born before January 1, 1955.

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Notes to Financial Statements

Years Ended December 31, 2016 and 2015

NOTE 2 PENSION PLAN *(continued)*

Plan Description and Contribution Information *(continued)*

Effective November 29, 2016, Public Act 99-0905 (PA-0905) became law. This Act extended the 3% annual cost-of-living increase to participants born after December 31, 1954, but before January 1, 1966, first payable at the later of age 55 or one year from retirement date. For members who retired prior to December 31, 2016, the annual cost-of-living increases are payable as of January 1, 2017, but no retroactive increases prior to such date are provided. In addition, under PA-0905, the minimum benefit for annuitants and widows cannot be less than 125% of the Federal poverty level.

If the recipient was born after January 1, 1966, the monthly annuity increases by 1.5% of the original annuity at the first of the month following the later of the attainment of age 60 or the first anniversary of retirement, and 1.5% on each January 1 thereafter, but will not exceed a total of 30%. Members first hired after January 1, 2011, are subject to different provisions within their defined benefit pension plan. The new provisions include a minimum retirement age of 55, a final average salary calculation based upon 96 consecutive months within the last 120 months of employment, an annual salary cap for purposes of calculating a pension benefit, and cost-of-living increases for a pension benefit that include considerations related to the Consumer Price Index for urban consumers.

Covered employees are required to contribute 9.0% of their salary to the Fund. If an employee leaves covered employment without qualifying for an annuity, accumulated contributions are refunded with interest.

Prior to the 2015 fiscal year, the total annual actuarial required contribution to the Fund (financed by the employees and the City) is equal to the normal cost plus interest only on the unfunded actuarial accrued liabilities determined using the entry age normal method. This actuarial cost method amortizes the costs of the participants' benefits over the entire career of each member as a level of percentage of compensation. The employer contribution required for interest only on the unfunded actuarial accrued liabilities results in a decreasing annual employer cost expressed as a percentage of payroll as future payrolls increase. Since the tax levy was expressed as a multiple of the total salary deductions made two years prior, the City was effectively contributing a level annual percentage of payrolls.

Commencing with the City tax levy year beginning in 2016, legislation in place at December 31, 2016, provides for fixed dollar City contributions for payment years 2016 to 2020, and level percent of pay contributions for years 2021 to 2055. Beginning with payment year 2021, the funding policy requires that future employer contributions, employee contributions and other Fund income are sufficient to produce a funding goal of 90% by the fiscal year end 2055, based upon the actuarial value of Fund assets and application of certain required actuarial assumptions and methodologies.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

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Notes to Financial Statements

Years Ended December 31, 2016 and 2015

NOTE 2 PENSION PLAN *(continued)*

Plan Description and Contribution Information *(continued)*

The actuarial calculation utilized and reported to the City for its tax levy in 2015 requires that assets are marked-to-market at March 30, 2011, and the actuarial value of assets be based upon a five-year smoothing of investment gains and losses incurred in fiscal years ending after March 30, 2011. The actuarial value of assets at December 31, 2016, reflects that assets were marked to the fair market value of assets at January 1, 2012, and all related investment gains and losses through January 1, 2012, were recognized. Investment gains and losses for the years ended December 31, 2012, 2013, 2014, 2015 and 2016, are recognized at a rate of 20% per year over a five-year period. For purposes of the actuarial asset valuation, resetting the actuarial value of assets to the fair market value of assets at January 1, 2012, instead of March 30, 2011, did not impact the statutory contribution requirement for 2015.

The total pension liability at December 31, 2016 and 2015, was \$13,113,091,688 and \$12,032,733,000, respectively. The plan fiduciary net position at December 31, 2016 and 2015 was \$2,865,018,804 and \$3,058,949,037, respectively. The net pension liability at December 31, 2016 and 2015 was \$10,248,072,884 and \$8,973,783,963, respectively. The Single Discount Rate of 7.07% required by GASB Statement No. 67 as of December 31, 2016 was based on a long-term expected rate of return on pension plan investments of 7.25% and a long-term municipal bond rate of 3.78%. The Single Discount Rate of 7.15% as of December 31, 2015 was based on a long-term expected rate of return on pension plan investments of 7.50% and a long-term municipal bond rate of 3.57%.

NOTE 3 HEALTH INSURANCE SUPPLEMENT

Plan Description and Contribution Information

The City offered group health benefits, as was provided, to annuitants and their eligible dependents, which expired on December 31, 2016 (part or all of the City portion is subject to ongoing court review).

Premiums were established by the City, with the City paying a significant portion of the cost of health coverage and the remaining amount paid by all annuitants participating in the City's health care plans. Prior to December 31, 2016, the Fund paid the City on behalf of each of the annuitants who choose to participate in any of the City's health care plans, up to a maximum of \$95 per month from July 1, 2009 through December 31, 2016, for each annuitant who did not qualify to receive Medicare benefits; and up to a maximum of \$65 per month from July 1, 2009 through December 31, 2016, for each annuitant who qualify to receive Medicare benefits. These subsidy rates expired on December 31, 2016.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

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Notes to Financial Statements

Years Ended December 31, 2016 and 2015

NOTE 3 HEALTH INSURANCE SUPPLEMENT *(continued)*

Plan Description and Contribution Information *(continued)*

The disclosures herein assume that for valuation purposes the subsidy rates for the health insurance supplement in effect at December 31, 2016 and 2015 ended on December 31, 2016.

The supplemental payments by the Fund are included in employer contributions on the statements of changes in fiduciary net position. The supplemental healthcare benefits were not dependent upon inflation, as the benefits paid were a fixed dollar amount.

The health insurance supplement was financed with current contributions on a pay-as-you-go basis. There was no separate healthcare account or assets to pay the health insurance supplement.

At December 31, 2016 and 2015, the number of annuitants or surviving spouses who had subsidized health insurance totaled 10,268 and 10,405, respectively. Of the 3,126 and 2,805 remaining annuitants or surviving spouses, at December 31, 2016 and 2015, respectively, substantially all were eligible for subsidized health insurance prior to December 31, 2016, subject to their election of such benefits at a future date, and successful completion of the City's enrollment procedures, which included certificate of insurability or an annual exam. Additionally, of the 606 and 637 terminated employees who were entitled to benefits or a refund at December 31, 2016 and 2015, respectively, approximately 60 and 52 of the terminated employees were eligible for subsidized health insurance prior to December 31, 2016, subject to their election of such benefits at a future date and successful completion of the City's enrollment procedures. The annual required contribution represented a level of funding that, if paid on an ongoing basis, was projected to cover normal costs each year and amortize any unfunded actuarial liabilities over a period not to exceed 30 years. The estimated City contribution represented the expected benefit payments for the health insurance supplement. In 2016 and 2015, the Fund received contributions of \$9,155,514 and \$9,441,534, respectively. Contributions to the health insurance supplement were equal to the insurance subsidy payments to the City. There were no net assets available for the health insurance supplement at December 31, 2016, or 2015.

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Notes to Financial Statements

Years Ended December 31, 2016 and 2015

NOTE 3 HEALTH INSURANCE SUPPLEMENT *(continued)*

Funded Status and Funding Progress

The funded status of the Fund’s health care plans as offered by the City as of December 31, 2016 and 2015, which are the most recent actuarial valuation dates, were as follows:

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ([b-a]/c)
12/31/16	-	\$ -	\$ -	0.00	\$1,119,526,987	0.00%
12/31/15	-	9,255,090	9,255,090	0.00	1,086,607,979	0.85%

The schedule of funding progress, presented as Required Supplementary Information (RSI) following the notes to the financial statements, presented multi-year trend information regarding the actuarial values of the Healthcare Insurance Fund assets and the ratios to the AALs for benefits.

Additional information as of the latest actuarial valuation follows:

Valuation dates	December 31, 2016, and 2015
Actuarial cost method	Entry age normal
Amortization method	Level percent open
Remaining amortization period	December 31, 2016: 1 year closed – period for FY 2016 December 31, 2015: 2 year closed - period for FY 2015 and beyond
Asset valuation method	No assets (pay-as-you-go)
<i>Actuarial assumptions</i>	
OPEB investment rate of return	4.5%
Projected salary increases	3.75% – per year, plus additional percentage related to service
Healthcare cost trend rate	0.0% (fixed dollar subsidy)
General inflation rate	3.0%

NOTE 4 CASH AND INVESTMENT RISK

Cash

The bank balance and carrying amount of the Fund’s deposits at December 31, 2016 were \$609,155 and \$(726,201), respectively; and \$546,216 and \$(156,201) at December 31, 2015, respectively. These balances excluded \$250 of petty cash. The bank balance at December 31, 2016 and 2015 is on deposit with the City Treasurer and is insured or collateralized by securities held by the City Treasurer in the Fund’s name.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

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Notes to Financial Statements

Years Ended December 31, 2016 and 2015

NOTE 4 CASH AND INVESTMENT RISK *(continued)*

Investment Policy

The Trustees assume the responsibility for establishing the Fund's investment policy. The Fund's overall investment policy is based on the following principles established by the Trustees:

- Maintain a long-term investment horizon for the Fund
- Diversify investments across several asset classes

The Trustees have indicated interest in developing a risk policy statement in parallel to the Fund's investment policy. The policy would highlight those risks managed at the Fund level and those managed by external managers. The risk policy would also state the types of risks that are monitored and how they are measured. Until such policy is developed by PABF staff and adopted by the Board, there is no formal policy relating to specific investment-related risks.

Money-Weighted Rate of Return

For the years ended December 31, 2016 and 2015, the annual money-weighted rate of return on the plan investments, net of investment expense, was 6.66% and (0.41)%, respectively. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

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Notes to Financial Statements

Years Ended December 31, 2016 and 2015

NOTE 4 CASH AND INVESTMENT RISK *(continued)*Investment Summary

The following table presents a summary of the Fund's investments by type at December 31, 2016 and 2015:

	<u>2016</u>	<u>2015</u>
U.S. Government and agency fixed income	\$ 226,704,847	\$ 241,404,326
U.S. corporate fixed income	308,751,856	306,366,120
U.S. common collective fixed-income funds	146,788,365	93,919,509
Global common collective fixed-income funds	103,159,063	119,194,529
Global common collective equity funds	146,411,345	192,123,048
U.S. equities	495,799,608	460,460,737
U.S. common collective stock funds	94,789,299	97,795,855
International equity common collective funds	22,500,765	22,143,930
Foreign equities	572,324,412	618,856,305
Pooled short-term investment funds	57,098,582	21,458,105
Infrastructure	26,030,921	38,932,764
Real estate	74,675,801	80,387,687
Venture capital	132,946,934	156,327,767
Forward contracts and swaps	19,302,497	9,359,323
Hedge fund-of-funds	20,739,009	9,954,440
Cash and cash equivalents	37,161,534	51,608,195
Total investments at fair value	<u>\$ 2,485,184,838</u>	<u>\$ 2,520,292,640</u>

There are no individual investments held by the Fund that represented 5% or more of net position held in trust for pension benefits, except for the Fund's investment in the MFO GMO Global Asset Allocation Fund, which amounted to \$146,411,345 and \$192,123,048 at December 31, 2016 and 2015, respectively. There are no insurance contracts excluded from plan assets.

The Fund's investments were managed by approximately 49 and 47 external investment managers during 2016 and 2015, respectively, with additional services provided by an external investment consultant. The Fund does not employ any internal investment managers; therefore, its investments are not managed internally. The Fund does not have a formal policy regarding the credit risk of its external managers or investment consultant.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

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Notes to Financial Statements

Years Ended December 31, 2016 and 2015

NOTE 4 CASH AND INVESTMENT RISK *(continued)*

Fair Value Measurements

The Fund categorizes the fair value measurements of its investments based on the hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure an asset's fair value. Fair value is the amount that would be received to sell the investment in an orderly transaction between market participants at the measurement date (i.e., exit price). The fair value measurements are determined within a framework that utilizes a three-tier hierarchy, which maximizes the use of observable inputs and minimizes the use of unobservable inputs. Investments measured and reported at fair value are classified and disclosed in one of the following categories:

- Level 1:* Unadjusted quoted prices in active markets for identical assets.
- Level 2:* Inputs other than quoted prices that are observable for the asset, either directly or indirectly. These inputs include:
 - a. quoted prices for similar assets in active markets;
 - b. quoted prices for identical or similar assets in markets that are not active;
 - c. inputs other than quoted prices that are observable for the asset;
 - d. inputs that are derived principally from or corroborated by observable market data by correlation or other means.
- Level 3:* Inputs that are unobservable for the asset. The valuation of these investments requires significant judgment due to the absence of quoted market values, inherent lack of liquidity, and changes in market conditions.

The Fund's investments that are valued using the NAV per share (or its equivalent) as a practical expedient are not classified in the fair value hierarchy.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
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NOTE 4 CASH AND INVESTMENT RISK (continued)

Fair Value Measurements (continued)

The recurring fair value measurements for the year ended December 31, 2016 are as follows:

Investments by fair value level	Totals	Fair Value Measurements Using		
		Level 1	Level 2	Level 3
<i>Equities</i>				
U.S. common stock and other equity	\$ 495,799,608	\$ 494,927,389	\$ 872,219	\$ -
Collective investment funds, stock	94,789,299	-	94,789,299	-
International equity	572,324,412	570,355,417	1,862,886	106,109
<i>Fixed income</i>				
U.S. bonds and notes	499,507,343	-	499,507,343	-
International bonds and notes	35,949,360	-	35,743,794	205,566
Short-term instruments	94,260,116	1,306,181	83,374,345	9,579,590
Forward contracts and swaps	19,302,497	-	19,302,497	-
Real state	14,019,818	14,019,818	-	-
Subtotal	<u>1,825,952,453</u>	<u>\$ 1,080,608,805</u>	<u>\$ 735,452,383</u>	<u>\$ 9,891,265</u>
Investments measured at net asset value				
Collective investment funds, stock	146,411,345			
Collective investment funds, international equities	22,500,765			
Collective investment funds, fixed	146,788,365			
Collective investment funds, international fixed	103,159,063			
Infrastructure	26,030,921			
Hedge fund-of-funds	20,739,009			
Real estate	60,655,983			
Venture capital and private equity	132,946,934			
Subtotal	<u>659,232,385</u>			
Total	<u>\$ 2,485,184,838</u>			

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

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

Equity and corporate bonds classified in Level 3 of the fair value hierarchy are securities whose stated market price is unobservable by the market place. Many of these securities are priced by the issuers of industry groups. These prices are obtained from various pricing sources by the Fund's custodian bank.

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Years Ended December 31, 2016 and 2015

NOTE 4 CASH AND INVESTMENT RISK (continued)

Fair Value Measurements (continued)

Investments measured at NAV for fair value are not subject to level classification. The following table summarizes the Fund's investments in certain entities that measure net asset value per share as fair value measurement as of December 31, 2016:

2016	Fair Value	Unfunded Commitments	Redemption Frequency (if Currently Eligible)	Redemption Notice Period
Collective investment funds, stock	\$ 146,411,345	\$ -	As needed	Up to 90 days
Collective investment funds, international equities	22,500,765	-	As needed	Up to 90 days
Collective investment funds, fixed	146,788,365	13,754,709		
Collective investment funds, international fixed	103,159,063	9,718,018		
Infrastructure	26,030,921	20,289,623		
Hedge fund-of-funds	20,739,009	-	As needed	Up to 90 days
Real estate	60,655,983	28,246,222		
Venture capital and private equity	132,946,934	43,781,695		
	<u>\$ 659,232,385</u>			

Collective investment funds, stock and international equities: There are two funds that invest in equities diversified across all sectors.

Collective investment funds, fixed and international fixed: There are seven funds that invest in a variety of fixed income markets through various investments. Four of these funds are not eligible for redemption as of December 31, 2016.

Infrastructure: There are three funds that invest in a variety of infrastructure assets through various investments.

Hedge fund-of-funds: There is one fund that invests in a select group of underlying managers that implement a number of different alternative investment strategies and invest in a variety of markets through limited partnerships, limited liability companies and other investment entities.

Real estate, venture capital and private equity: The real estate investments consist of 15 core, value-add, and opportunistic real estate funds. The private market partnerships consist of 12 limited partnership interests in equity or debt securities of privately held companies. Real estate closed-end funds and private market partnerships are not eligible for redemption.

Investment Risks

The Fund's investments are subject to certain types of risks, including interest rate risk, credit risk, custodial credit risk and foreign currency risk. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the value of investment securities will occur in the near term. The changes could materially affect the amounts reported in the statements of fiduciary net position.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

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Notes to Financial Statements

Years Ended December 31, 2016 and 2015

NOTE 4 CASH AND INVESTMENT RISK *(continued)*Investment Risks *(continued)*

Interest rate risk—Interest rate risk is the risk that the fair value of debt securities decreases due to increases in the prevailing market interest rate. Generally, the longer the maturity of an investment, the greater the sensitivity of its fair value to changes in market interest rates. The Fund does not have a formal policy regarding interest rate risk. The Fund attempts to mitigate its exposure to fair value loss arising from increasing interest rates by diversifying its fixed-income investment strategy and by allocation to several investment managers. The Fund engaged six such managers in 2016 and 2015, respectively. Each investment manager is required to determine the maturities of all fixed-income securities in their portfolio. Additionally, guidelines are provided to the external investment managers, including a target duration range that is consistent with each investment manager's respective strategy.

The following tables show the segmented time distribution of the Fund's investments into time periods of maturities based on the investments' cash flows.

At December 31, 2016, the Fund had the following investments and maturities related to certain fixed-income securities (bonds and notes):

Investment Type	Fair Value	Investment Maturities			
		Less than 1 Year	1 to 6 Years	7 to 10 Years	More than 10 Years
Asset-backed securities	\$ 45,178,048	\$ -	\$ 16,381,597	\$ 11,057,555	\$ 17,738,896
Bank loans	13,093,827	-	7,913,447	5,180,380	-
Collateralized bonds	440,881	-	-	440,881	-
Commercial mortgage-backed securities	17,372,571	-	423,751	-	16,948,820
Corporate bonds	210,502,452	6,818,290	85,852,339	78,490,919	39,340,904
Corporate convertible bonds	827,900	-	-	-	827,900
Government agency securities	12,838,322	1,097,506	9,849,769	1,344,482	546,565
Government bonds	101,680,668	5,705,983	54,689,954	29,717,036	11,567,695
Government mortgage-backed securities	111,881,845	-	953,552	3,235,351	107,692,942
Index-linked government funds	2,121,045	658,388	-	1,462,657	-
Municipal principal bonds	11,430,275	980,805	3,395,488	3,657,269	3,396,713
Non-government-backed collateralized mortgage obligations	8,088,869	-	604,122	127,742	7,357,005
	<u>\$ 535,456,703</u>	<u>\$ 15,260,972</u>	<u>\$ 180,064,019</u>	<u>\$ 134,714,272</u>	<u>\$ 205,417,440</u>

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
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Notes to Financial Statements
Years Ended December 31, 2016 and 2015

NOTE 4 CASH AND INVESTMENT RISK *(continued)*

Investment Risks *(continued)*

At December 31, 2015, the Fund had the following investments and maturities related to certain fixed-income securities (bonds and notes):

Investment Type	Fair Value	Investment Maturities			
		Less than 1 Year	1 to 6 Years	7 to 10 Years	More than 10 Years
Asset-backed securities	\$ 45,757,765	\$ -	\$ 17,350,613	\$ 5,326,369	\$ 23,080,783
Bank loans	9,112,825	-	6,459,360	2,653,465	-
Collateralized bonds	435,204	-	-	435,204	-
Commercial mortgage-backed securities	25,073,132	-	414,325	1,234,335	23,424,472
Corporate bonds	202,328,988	6,303,857	69,517,915	82,812,623	43,694,593
Corporate convertible bonds	808,538	-	208,500	-	600,038
Government agency securities	10,704,270	266,052	7,247,574	2,802,773	387,871
Government bonds	113,245,899	4,648,557	67,892,840	26,497,116	14,207,386
Government mortgage-backed securities	116,377,994	-	1,308,860	1,205,228	113,863,906
Index-linked government funds	1,076,163	84,423	171,449	468,440	351,851
Municipal principal bonds	12,085,968	952,960	2,816,984	2,856,522	5,459,502
Non-government-backed collateralized mortgage obligations	10,583,643	-	477,254	1,179,480	8,926,909
Other fixed income	180,057	180,057	-	-	-
	<u>\$ 547,770,446</u>	<u>\$ 12,435,906</u>	<u>\$ 173,865,674</u>	<u>\$ 127,471,555</u>	<u>\$ 233,997,311</u>

Credit risk: Credit risk is the risk that the issuer or other counterparty to an investment will not fulfill its obligations. One measure of credit risk is the quality ratings issued by national ratings agencies, such as Moody's Investors Services (Moody's) and Standard & Poor's Financial Services. The Fund does not have a formal policy in regard to aggregate credit quality of fixed-income holdings. The Fund utilizes external investment management firms to invest in fixed-income securities and credit quality is addressed within the guidelines of the mandate for each of the managers. If a holding falls below specific guideline requirements, the manager will either sell the security or will inform the Fund of the lower rating and why the manager believes that it is prudent to continue to hold the security as they believe that the security will return to minimum constraints.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

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Notes to Financial Statements

Years Ended December 31, 2016 and 2015

NOTE 4 CASH AND INVESTMENT RISK (continued)Investment Risks (continued)

The following table provides information on the credit ratings associated with the Fund's investments in debt securities. Rates were obtained from Moody's:

	Fair Value	
	2016	2015
<i>Quality Rating</i>		
Aaa	\$ 127,930,782	\$ 151,621,876
Aa	16,566,496	21,161,232
A	49,183,786	41,638,499
Baa	92,520,970	88,647,244
Ba	50,167,529	40,373,438
B	19,806,403	24,982,806
Not rated	43,240,461	47,719,657
Caa through C	6,029,044	7,357,786
	<hr/>	<hr/>
Total credit risk of U.S. corporate fixed income	405,445,471	423,502,538
U.S. govt. fixed income securities - explicitly guaranteed	129,541,822	123,828,050
U.S. govt. agency securities-not rated	469,410	439,858
	<hr/>	<hr/>
	\$ 535,456,703	\$ 547,770,446
	<hr/>	<hr/>

Custodial credit risk: Custodial credit risk applies to investments, cash, and certificates of deposit. For an investment, custodial credit risk is the risk that, in the event of the failure of the counterparty, the Fund will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. For cash and certificates of deposit, custodial credit risk is the risk that in the event of a bank failure, the Fund's deposits may not be returned. As of December 31, 2016 and 2015, cash deposits of \$1,914,773 and \$1,531,144, respectively, were exposed to custodial credit risk as uninsured and uncollateralized. The Fund does not have a formal policy regarding custodial credit risk.

Foreign currency risk: Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

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Notes to Financial Statements

Years Ended December 31, 2016 and 2015

NOTE 4 CASH AND INVESTMENT RISK (continued)Investment Risks (continued)

The Fund does not have a formal investment policy governing foreign currency risk, but does manage its exposure to loss in the fair value of investments by requiring managers of foreign investments to maintain diversified portfolios. The Fund's equity and fixed-income portfolios include investments that are subject to foreign currency risk. Such investments include non-U.S. equities, government bonds, corporate bonds, and derivative instruments. Additionally, some of the Fund's investment managers at least partially hedge foreign currency exchange risk. The Fund's exposure to foreign currency risk is as follows:

	<u>Fair Value</u>	
	<u>2016</u>	<u>2015</u>
<i>Currency</i>		
Australian Dollar	\$ 11,549,806	\$ 8,450,019
Brazilian Real	8,883,073	9,375,535
British Pound Sterling	49,368,589	130,696,329
Canadian Dollar	22,848,558	14,059,611
Chinese Yuan Renminbi	364,340	(440,150)
Colombian Peso	2,679,240	753,448
Costa Rican Colon	-	54,426
Czech Koruna	2,073,423	2,224,550
Danish Krone	3,136,715	4,608,638
Euro Currency Unit	120,461,649	102,395,450
Hong Kong Dollar	52,323,482	54,361,326
Hungarian Forint	1,494,111	(35)
Indian Rupee	11,465,440	11,117,581
Indonesian Rupiah	11,227,055	7,126,204
Japanese Yen	89,918,206	91,502,259
Malaysian Ringgit	2,097,909	2,928,119
Mexican Peso	7,108,251	9,272,775
New Israeli Shekel	1,737,511	3,060,474
New Romanian Leu	(4,596)	(621)
New Taiwan Dollar	20,810,065	16,101,627
New Zealand Dollar	1,223,206	333,106
Norwegian Krone	3,402,275	2,114,275
Peruvian Nuevo Sol	-	(1,199)
Philippine Peso	2,604,894	2,855,735
Polish Zloty	308,369	1,767,174
Qatari Rial	59,164	47,114
Russian Ruble	(698,370)	129,168
Singapore Dollar	(87,158)	(441,097)
South African Rand	9,990,898	6,521,332
South Korean Won	19,980,028	18,284,714
Swedish Krona	13,202,433	10,196,595
Swiss Franc	18,609,062	26,371,298
Thai Baht	4,246,312	1,609,988
Turkish Lira	5,080,808	6,699,182
Uruguayan Peso	-	7,872
Total investments in foreign currency	\$ 497,464,748	\$ 544,142,822

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Notes to Financial Statements

Years Ended December 31, 2016 and 2015

NOTE 4 CASH AND INVESTMENT RISK *(continued)*

Derivatives

The Fund's investment managers may enter into derivative transactions as permitted by their guidelines. A derivative financial instrument is an investment whose payoff depends on the value of an underlying instrument such as bond or stock prices, a market index, or commodity prices. Derivative financial instruments involve, to varying degrees, credit risk and market risk. Credit risk is the possibility that a loss may occur because a party to a transaction fails to perform according to terms. Market risk is the possibility that a change in the underlying element of the derivative will cause the value of a financial instrument to decrease or become more costly to settle. Most of the derivative transactions executed by the Fund's investment managers are related to currency through foreign exchange contracts, the vast majority of which is for hedging purposes, and interest rates through interest rate futures and forward contracts, the purpose of which is mostly duration management. In addition to derivative transactions executed directly by the Fund's investment managers, the Fund also holds interests in collective funds, hedge funds, and private equity funds, which may engage in derivative transactions. The Fund does not directly purchase derivatives with borrowed funds.

Futures contracts: The Fund's external investment managers enter into futures contracts in the normal course of investing activities to manage market risk associated with the Fund's fixed-income investments and to achieve overall investment portfolio objectives. These contracts involve elements of market risk in excess of amounts recognized in the statements of fiduciary net position. The credit risk associated with these contracts is minimal, as they are traded on organized exchanges and settled daily.

At December 31, 2016, the Fund had interest rate futures contracts to purchase U.S. Treasury securities and Australian Treasury securities with notional amounts of \$21,514,247 and \$1,525,084, respectively. At December 31, 2016, the Fund also had interest rate futures contracts to sell U.S. Treasury securities with notional amounts of \$102,285,217. At December 31, 2015, the Fund had interest rate futures contracts to purchase U.S. Treasury securities and Euro Dollars with notional amounts of \$23,531,800 and \$5,935,156, respectively. At December 31, 2015, the Fund also had interest rate futures contracts to sell U.S. Treasury securities and Euro Dollars with notional amounts of \$66,810,100 and \$5,905,712, respectively.

The fair value of futures contracts in the statements of fiduciary net position was zero at December 31, 2016 and 2015, as settlements are by cash daily.

The Fund had net investment earnings (losses) of \$698,656 and \$(239,359) on futures contracts in 2016 and 2015, respectively. These earnings (losses) are accounted for as net appreciation (depreciation) in fair value of investments.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

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Notes to Financial Statements

Years Ended December 31, 2016 and 2015

NOTE 4 CASH AND INVESTMENT RISK *(continued)*

Derivatives *(continued)*

Interest rate and credit default swaps: The Fund's external investment managers utilize interest rate and credit default swaps in the management of the Fund's fixed-income portfolio. Swap agreements are contractual agreements between two or more parties in which each party agrees to exchange sets of cash flows based on certain agreed-upon parameters. The holder is exposed to credit risk for nonperformance and to market risk for changes in interest rates. Gains and losses on swaps are determined based on fair values and are recorded in the statements of changes in fiduciary net position. The notional value of credit default swaps was \$23,510,287 and \$64,249,508 as of December 31, 2016 and 2015, respectively. The notional value of interest rate swaps was \$8,323,099 and \$1,004,595 as of December 31, 2016 and 2015, respectively. The fair value of swaps outstanding at December 31, 2016 and 2015 was a net (liability) asset of \$(254,930) and \$200,810, respectively. Investment loss from holdings and sales of interest rate and credit default swaps was \$592,425 and \$1,135,932 in 2016 and 2015, respectively. These losses are included in net appreciation (depreciation) in fair value of investments in the statements of changes in fiduciary net position.

Foreign exchange contracts: The Fund's external investment managers utilize foreign currency forward contracts, primarily for hedging purposes. Foreign currency forward contracts are contractual agreements to buy or sell a specific amount of a foreign currency at a certain date for an agreed price. As the fair value of the underlying foreign currency varies from the contractual agreed price, the Fund records an unrealized gain or loss. The holder is exposed to credit risk for nonperformance and to market risk for changes in interest rates. The Fund had pending foreign currency purchases and sales that included positions with various currencies primarily including Australian dollars, Brazilian real, British pound sterling, Canadian dollars, Chinese yuan renminbi, Colombian pesos, Costa Rican colon, Czech koruna, Danish krone, Euros, Hong Kong dollars, Hungarian forint, Indian rupee, Indonesian rupiah, Japanese yen, Malaysian ringgit, Mexican pesos, New Israeli shekel, New Romanian leu, New Taiwan dollar, New Zealand dollar, Norwegian krone, Peruvian Nuevo sol, Philippine peso, Polish zloty, Russian ruble, Singapore dollars, South African rand, South Korean won, Swedish krona, Swiss francs, Thai baht, Turkish lira, U.S. dollars, and Uruguayan peso at December 31, 2016 and 2015. Total pending foreign currency forward purchases and (sales) had notional values of \$70,653,866 and \$(69,968,004), respectively, at December 31, 2016, and \$64,582,115 and \$(64,691,317), respectively, at December 31, 2015.

The Fund had a net unrealized gain (loss) on pending foreign currency forward contracts of \$ 685,862 and \$(109,202) at December 31, 2016 and 2015, respectively, which is reflected in the fair value of the investments on the statements of fiduciary net position. Investment income (loss) from holdings and sales of foreign currency forward contracts was \$(346,052) and \$1,175,988 in 2016 and 2015, respectively.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

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Notes to Financial Statements

Years Ended December 31, 2016 and 2015

NOTE 4 CASH AND INVESTMENT RISK *(continued)*

Derivatives *(continued)*

Forward interest rate contracts: The Fund's external investment managers entered into forward contracts to purchase or sell bond securities during 2016 and 2015. Forward contracts are contracts for delayed delivery of securities in which the seller agrees to make delivery at a specified future date of a specified instrument, at a specified price or yield. The holder is exposed to credit risk for nonperformance and to market risk for changes in interest rates.

These instruments involve, to varying degrees, elements of credit risk in excess of the amount recognized in the statements of fiduciary net position. The Fund's external investment managers attempt to mitigate this credit risk through structured trading with reputable parties.

At December 31, 2016, the Fund held forward contracts to buy U.S. TIPS (Treasury Inflation Protected Securities) with fair values of \$18,555,372, and the Fund also held forward contracts to (sell) U.S. TIPS and U.S. Treasury notes with fair values of \$17,783,462. At December 31, 2015, the Fund held forward contracts to buy U.S. TIPS and U.S. government bonds with fair values of \$7,973,666, and the Fund also held forward contracts to (sell) U.S. Treasury notes with fair values of \$8,032,951. The unrealized gain on these contracts was \$90,195 and \$18,838 at December 31, 2016 and 2015, respectively. Investment income (loss) from holdings and sales of interest rate forward contracts was \$272,982 and \$(318,664) in 2016 and 2015, respectively. The investment income (loss) are included in net appreciation (depreciation) in fair value of investments in the statements of changes in fiduciary net position.

Investment Management Fees

Investment management fees from equity and fixed income managers, including some of the collective funds, are included in investment management fees on the statements of changes in fiduciary net position. Investment management fees from funds of short-term investments, infrastructure, hedge, real estate, venture capital and private equity are reflected in the net investment income from such investment products. Such investment management fees are not significant to the financial statements.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

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Notes to Financial Statements

Years Ended December 31, 2016 and 2015

NOTE 5 SECURITIES LENDING PROGRAM

State statutes and Board of Trustees policies permit the Fund to lend some of its securities to broker/dealers and other entities with a simultaneous agreement to return the collateral for the same securities in the future. The Fund's securities lending agent, Deutsche Bank AG, New York Branch (Deutsche Bank), lends securities of the type on loan at year end for collateral in the form of cash, securities issued by or guaranteed as to principal and interest by the U.S. Government, its agencies, instrumentalities and establishment, and non-U.S. sovereign debt securities representing obligations of an Organization for Economic Cooperation and Development (OECD) country having a fair value equal to or exceeding 102% of the value of the loaned securities and 105% for non-U.S. securities. The contract with Deutsche Bank provides for indemnification for the Fund with respect to any shortfall between liquidation proceeds and the fair market value of: (1) in respect to lending transactions, the securities subject to such transaction, or (2) in the case of reverse transactions, the amount of cash deposited with a counterparty with respect to such transaction. The terms of liquidation proceeds, fair market value and reverse transactions are more specifically defined in the agency securities lending agreement.

All securities loaned can be terminated on demand by either the Fund or the borrower, although the average term of the Fund's loans was approximately 1 day as of December 31, 2016 and 2015, respectively. At December 31, 2016 and 2015, cash collateral was reinvested in indemnified repurchase agreements which had an interest sensitivity of 83.55 days and 22.34 days, respectively. The relationship between the maturities of the investment pool and the Fund's loans is affected by the maturities of the securities loans made by other entities that use the agent's pool, which the Fund cannot determine. The Fund cannot pledge or sell collateral securities received unless the borrower defaults.

Loans outstanding as of December 31, 2016 and 2015 were as follows:

	<u>2016</u>	<u>2015</u>
Fair value of securities loaned	\$ 174,015,213	\$ 90,964,784
Fair value reinvested of cash collateral from borrowers	177,836,930	93,088,584
Fair value of non-cash collateral from borrowers	-	-

As of December 31, 2016 and 2015, the Fund had limited credit risk exposure to borrowers because the amounts owed to the borrowers exceeded the amounts owed to the Fund.

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Notes to Financial Statements

Years Ended December 31, 2016 and 2015

NOTE 6 UNFUNDED INVESTMENT COMMITMENTS

The Fund had unfunded commitments of approximately \$116 million and \$77 million at December 31, 2016, and 2015, respectively, in connection with real estate, infrastructure, and private equity investments.

NOTE 7 POST-RETIREMENT BENEFITS OF THE FUND—STAFF RETIREE HEALTH PLAN

Plan Description

The Policemen's Annuity and Benefit Fund of Chicago (PABF), as an employer, administers a single-employer defined benefit post-retirement healthcare plan (Staff Retiree Health Plan). The Staff Retiree Health Plan provides lifetime health and dental insurance for eligible retirees and their spouses through PABF's group health insurance plan, which covers both active and retired members. As of December 31, 2016 and 2015, 12 retirees were in the Staff Retiree Health Plan and 18 active employees could be eligible at retirement. Benefit subsidy provisions have been established by PABF's Board of Trustees. The amount of the subsidy varies according to a retiree's years of service with PABF and the coverages elected. These benefit subsidy provisions can be modified or terminated at the sole discretion of the PABF Board.

Funding Policy

The required contribution is based on projected pay-as-you-go financing requirements. For 2016 and 2015, PABF contributed approximately \$181,612 and \$152,574, respectively, to the Staff Retiree Health Plan for current premiums, inclusive of an implicit subsidy of \$24,169 and \$16,921, for 2016 and 2015, respectively. For 2016 and 2015, members receiving benefits contributed approximately \$89,702 and \$80,802, respectively, to the Staff Retiree Health Plan for current premiums.

Annual OPEB Cost and Net OPEB Obligation

PABF's annual Other Post-Employment Benefit (OPEB) expense is calculated based on the Annual Required Contribution (ARC) of the employer, an amount actuarially determined in accordance with the parameters of GASB Statement 45. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover normal costs each year and amortize any unfunded actuarial liabilities over a period not to exceed 30 years. The amortization period is open.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

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Notes to Financial Statements

Years Ended December 31, 2016 and 2015

NOTE 7 POST-RETIREMENT BENEFITS OF THE FUND—STAFF RETIREE HEALTH PLAN *(continued)*

Annual OPEB Cost and Net OPEB Obligation *(continued)*

The following table shows the components of PABF's annual OPEB cost for 2016 and 2015, the amount actually contributed to the Staff Retiree Health Plan, and changes in PABF's net OPEB obligation to the Staff Retiree Health Plan:

	<u>2016</u>	<u>2015</u>
Annual required contribution	\$ 450,328	\$ 429,179
Interest on net OPEB obligation	106,824	93,621
Adjustment to annual required contribution	<u>(87,670)</u>	<u>(76,834)</u>
Annual OPEB expense	469,482	445,966
Employer contributions made	<u>(181,612)</u>	<u>(152,574)</u>
Increase in net OPEB obligation	287,870	293,392
Net OPEB obligation at beginning of year	<u>2,373,859</u>	<u>2,080,467</u>
Net OPEB obligation at end of year	<u>\$ 2,661,729</u>	<u>\$ 2,373,859</u>

The annual OPEB cost, the percentage of annual OPEB cost contributed to the Staff Retiree Health Plan, and the net OPEB obligation for 2016, 2015 and 2014 are as follows:

<u>Year Ended</u>	<u>Annual OPEB Cost</u>	<u>Percentage of Annual OPEB Cost Contributed</u>	<u>Net OPEB Obligation</u>
12/31/2016	\$469,482	38.7%	\$2,661,729
12/31/2015	445,966	34.2	2,373,859
12/31/2014	423,369	29.1	2,080,467

Funded Status and Funding Progress

The funded status of PABF's Staff Retiree Health Plan as of December 31, 2016, and 2015, is as follows:

<u>Actuarial Valuation Date</u>	<u>Actuarial Value of Assets (a)</u>	<u>Unfunded Liability (AAL) Entry Age (b)</u>	<u>Unfunded AAL (UAAL) (b-a)</u>	<u>Funded Ratio (a/b)</u>	<u>Covered Payroll (c)</u>	<u>UAAL as a Percentage of Covered Payroll ([b-a]/c)</u>
12/31/16	-	\$ 6,221,517	\$ 6,221,517	0.00	\$ 1,620,867	383.8%
12/31/15	-	5,883,114	5,883,114	0.00	1,476,561	398.4

POLICEMEN’S ANNUITY AND BENEFIT FUND OF CHICAGO

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Notes to Financial Statements

Years Ended December 31, 2016 and 2015

NOTE 7 POST-RETIREMENT BENEFITS OF THE FUND—STAFF RETIREE HEALTH PLAN *(continued)*

Funded Status and Funding Progress *(continued)*

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and the healthcare cost trend. Amounts determined regarding the funded status of the Staff Retiree Health Plan and the annual required contributions of the employer are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. The schedule of funding progress, presented as RSI following the notes to the financial statements, present multi-year trend information on the actuarial values of assets of the Staff Retiree Health Plan and its ratio to the AAL for benefits.

Actuarial Methods and Assumptions

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employer and the plan members), which include the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employer and members to that point. The actuarial methods and assumptions used include techniques that are designed to reduce the effects of short-term volatility in actuarial accrued liabilities consistent with the long-term perspective of the calculations.

For the December 31, 2016 and 2015 actuarial valuations, the entry age normal actuarial cost method was used. The actuarial assumptions included a 4.5% investment rate of return based on the employer’s assumed return on its assets and at December 31, 2016, and 2015, an annual healthcare cost trend rate of 8.0% and 8.5% at December 31, 2016 and 2015, respectively, reduced by increments of 0.5 percentage point per year to an ultimate rate of 5.0% by January 1, 2022. At December 31, 2016, and 2015, the wage inflation assumption was 3.75%. The unfunded actuarial accrued liability is being amortized as a level percentage of projected payroll over a 30-year open period.

NOTE 8 RESERVES

The Fund maintains several reserves, as required by the Illinois Pension Code and Board policy. The following are brief descriptions of the reserves:

City Contribution Reserve

	<u>2016</u>	<u>2015</u>
Balances, at December 31	<u>\$ 1,941,006,405</u>	<u>\$ 1,895,040,460</u>

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

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Notes to Financial Statements

Years Ended December 31, 2016 and 2015

NOTE 8 RESERVES *(continued)*

City Contribution Reserve *(continued)*

The City Contribution Reserve is maintained for the payment of the City's portion of future retirement benefits for active and inactive participants. Interest at 3% is credited to this reserve annually. When the amount of annuity for a policeman or widow is fixed, the City Contribution Reserve is charged with the amount of the present value of retirement benefit and the Annuity Payment Reserve is credited with such amount.

The City Contribution Reserve does not equal the present value of expected retirement benefits. The reserve is maintained on a cost basis, in accordance with the Illinois Pension Code.

Salary Deduction Reserve

	<u>2016</u>	<u>2015</u>
Balances, at December 31	\$ <u>1,500,886,023</u>	\$ <u>1,469,066,967</u>

The Illinois Pension Code requires the Fund to maintain separate accounts for each policeman for the amounts of salary deductions with interest at 3% per year. When a policeman retires, the amount of his annuity is charged to the Salary Deduction Reserve and credited to the Annuity Payment Reserve. If a policeman takes a separation refund, his salary deductions are refunded to him and charged to the Salary Deduction Reserve. This reserve is fully funded.

Annuity Payment Reserve

	<u>2016</u>	<u>2015</u>
Balances, at December 31	\$ <u>2,484,485,598</u>	\$ <u>2,365,036,932</u>

When the amount of annuity has been fixed, the present value of expected benefit is transferred from the City Contribution Reserve and the Salary Deduction Reserve to the Annuity Payment Reserve for the payment of annuity. All age and service annuities, widow's annuities, and refunds are charged to this reserve.

Annually, the actuary calculates the present value of all annuities. The Investment and Interest Reserve will transfer amounts to the Annuity Payment Reserve to ensure that the balance in the Annuity Payment Reserve equals the present value of annuities. This reserve is fully funded.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

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Notes to Financial Statements

Years Ended December 31, 2016 and 2015

NOTE 8 RESERVES *(continued)*

Prior Service Annuity Reserve

	<u>2016</u>	<u>2015</u>
Balances, at December 31	\$ (1,494,715,851)	\$ (1,269,600,342)

The Prior Service Annuity Reserve is increased by the City's contributions for policemen and widows' prior service annuities and all prior service annuities payable to policemen and widows are charged to this reserve. This reserve included an unfunded liability of \$8,650,076,339 and \$8,101,813,286 as of December 31, 2016 and 2015, respectively.

Gift Reserve

	<u>2016</u>	<u>2015</u>
Balances, at December 31	\$ 13,116,200	\$ 13,173,046

The Gift Reserve is maintained for gifts, grants, bequests, or other amounts received by the Fund. The Board of Trustees determines the use of these funds. Interest is credited to the Gift Reserve annually.

Investment and Interest Reserve

All gains and losses from investments and investment earnings are recorded in the Investment and Interest Reserve. Interest due to the City Contribution Reserve, Salary Deduction Reserve, Prior Service Annuity Reserve, Gift Reserve, and Supplementary Payment Reserve is transferred from the Investment and Interest Reserve to those reserves.

Ordinary Death Benefit Reserve

	<u>2016</u>	<u>2015</u>
Balances, at December 31	\$ (32,992,169)	\$ (30,193,539)

Amounts contributed by policemen and the City for death benefits are credited to the Ordinary Death Benefit Reserve. Death benefit payments are charged to this reserve. At December 31, 2016 and 2015, the Ordinary Death Benefit Reserve had a deficit.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

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Notes to Financial Statements

Years Ended December 31, 2016 and 2015

NOTE 8 RESERVES *(continued)*

Automatic Increase Reserve

	<u>2016</u>	<u>2015</u>
Balances, at December 31	\$ <u>(1,547,214,804)</u>	\$ <u>(1,384,021,889)</u>

The Automatic Increase Reserve is credited with amounts deducted from the salaries of policemen and matching contributions by the City for automatic increase in annuity with interest thereon. Payments of increased annuities and salary deduction refunds for increase in annuity are charged to this reserve. At December 31, 2016 and 2015, the Automatic Increase Reserve had a deficit.

Supplementary Payment Reserve

	<u>2016</u>	<u>2015</u>
Balances, at December 31	\$ <u>447,402</u>	\$ <u>447,402</u>

The Supplementary Payment Reserve receives amounts transferred from the Investment and Interest Reserve for supplemental increases in annuity for certain eligible retirees. This reserve is fully funded.

The following reserves have a \$0 balance at December 31, 2016, and 2015. City contributions are allocated to these reserve accounts in amounts equal to payments made on an annual basis.

Child's Annuity Reserve

Amounts contributed by the City for child's annuity are credited to the Child's Annuity Reserve, and payments of child's annuity are charged to this reserve.

Duty Disability Reserve

The Duty Disability Reserve is increased by the City's contributions for duty disability benefits, child's disability benefits, and compensation annuities and is decreased by the payments of these benefits.

Ordinary Disability Reserve

Amounts contributed by the City for ordinary disability benefits are credited to the Ordinary Disability Reserve. Payments of ordinary disability benefits are charged to this reserve.

Hospitalization Fund Reserve

The health care premiums are paid from the tax levies and are credited to the reserve for Group Hospitalization Fund. Premium payments to the City are charged against this reserve.

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Notes to Financial Statements

Years Ended December 31, 2016 and 2015

NOTE 8 RESERVES *(continued)*

Expense Reserve

Amounts contributed toward the cost of administration are credited to the Expense Reserve, while expenses of administration are charged to this reserve.

NOTE 9 NET PENSION LIABILITY OF THE FUND

The components of the net pension liability at December 31, 2016, and 2015, were as follows:

	<u>2016</u>	<u>2015</u>
Total pension liability	\$ 13,113,091,688	\$ 12,032,733,000
Plan fiduciary net position	<u>2,865,018,804</u>	<u>3,058,949,037</u>
Fund's net pension liability	<u>\$ 10,248,072,884</u>	<u>\$ 8,973,783,963</u>
Plan fiduciary net position as a percentage of total pension liability	21.85%	25.42%

Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of December 31, 2016 and 2015, using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.75% - 2016; 3.0% - 2015
Salary increases	3.75% per year, plus additional percentage related to service
Investment rate of return	7.25% - 2016; 7.5% - 2015
Cost of living adjustments	For members hired before January 1, 2011: 3.0% (1.5% for retirees born after January 1, 1966, to a maximum of 30%) For members hired on or after January 1, 2011: 1/2 of CPI-U, maximum 3.0%

Mortality rates were based on the Sex Distinct Retirement Plans 2014 Total Employee and Healthy Annuitant mortality tables weighted 108% and 97% for post-retirement males and females, respectively, and 85% and 115% for pre-retirement males and females, respectively.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

(A Component Unit of the City of Chicago)

Notes to Financial Statements

Years Ended December 31, 2016 and 2015

NOTE 9 NET PENSION LIABILITY OF THE FUND *(continued)*Actuarial Assumptions *(continued)*

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate arithmetic expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These assumptions are converted into nominal assumptions by adding inflation, then combined by weighing them by the target asset allocation percentages. The arithmetic portfolio expected return is converted into a geometric expected return using assumed asset class standard deviations and correlations. The pension plan's target allocation as of December 31, 2016 and 2015, are summarized in the following tables:

December 31, 2016:

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long-Term Expected Real Rate of Return</u>
U.S. Equity	21%	6.1%
Non-U.S. Equity	20	7.6
Fixed Income	22	1.8
Global Asset Allocation	10	5.0
Private Markets	11	7.8
Hedge Funds	7	3.7
Real Estate	5	4.6
Real Assets	<u>4</u>	4.8
Total	<u><u>100%</u></u>	

December 31, 2015:

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long-Term Expected Real Rate of Return</u>
U.S. Equity	21%	6.1%
Non-U.S. Equity	20	7.8
Fixed Income	22	1.7
Global Asset Allocation	12	5.1
Private Markets	9	8.2
Hedge Funds	7	4.0
Real Estate	5	4.6
Real Assets	<u>4</u>	4.2
Total	<u><u>100%</u></u>	

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

(A Component Unit of the City of Chicago)

Notes to Financial Statements

Years Ended December 31, 2016 and 2015

NOTE 9 NET PENSION LIABILITY OF THE FUND *(continued)*

Single Discount Rate

A Single Discount Rate of 7.07% and 7.15% as of December 31, 2016 and 2015, respectively, was used to measure the total pension liability. These Single Discount Rates were based on an expected rate of return on pension plan investments of 7.25% and 7.50% for 2016 and 2015, respectively, and a municipal bond rate of 3.78% and 3.57%, respectively. The projection of cash flows used to determine this Single Discount Rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between statutory contribution rates and the member rate. Based on these assumptions, the pension plan's fiduciary net position and future contributions were sufficient to finance the benefit payments only through the year 2068. As a result, the long-term expected rate of return on pension plan investments was applied to projected benefit payments through the year 2068, and the municipal bond rate was applied to all benefit payments after that date.

Regarding the sensitivity of the net pension liability to changes in the Single Discount Rates, the following presents the plan's net pension liability, calculated using a Single Discount Rate of 7.07% and 7.15% as of December 31, 2016 and 2015, respectively, as well as what the plan's net pension liability would be if it were calculated using a Single Discount Rate that is 1-percentage-point lower or 1-percentage-point higher:

Sensitivity of Net Pension Liability to the Single Discount Rate Assumption as of December 31, 2016:

1% Decrease 6.07%	Single Discount Rate Assumption 7.07%	1% Increase 8.07%
\$ 11,931,816,590	\$ 10,248,072,884	\$ 8,918,000,370

Sensitivity of Net Pension Liability to the Single Discount Rate Assumption as of December 31, 2015:

1% Decrease 6.15%	Single Discount Rate Assumption 7.15%	1% Increase 8.15%
\$ 10,402,347,972	\$ 8,973,783,963	\$ 7,771,126,657

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

(A Component Unit of the City of Chicago)

Notes to Financial Statements

Years Ended December 31, 2016 and 2015

NOTE 10 DEFERRED COMPENSATION PLAN

The Fund offers its employees a deferred compensation plan created in accordance with Internal Revenue Code Section 457. The plan, available to all employees of the Fund, permits them to defer a portion of their salary until future years. Participation in the plan is optional. The deferred compensation is not available to employees until termination, retirement, death, or unforeseeable emergency. The plan is managed by a third-party administrator.

The assets of the plan were placed in trust accounts with the plan administrator for the exclusive benefit of participants and their beneficiaries and are not considered assets of the Fund.

NOTE 11 LEASE AGREEMENT

The Fund leases its office facilities under a noncancelable agreement. The current lease expired on June 30, 2016, and was renewed for 16 years through 2032. The new lease agreement includes an abatement clause during the term of the new lease.

Office rental expense amounted to \$303,035 and \$256,505 for the years ended December 31, 2016 and 2015, respectively.

Future minimum rental payments, net of abatement provisions under the office lease at December 31, 2016, are as follows:

<u>Year</u>	<u>Amount</u>
2017	\$ -
2018	141,122
2019	340,744
2020	347,559
2021	354,510

NOTE 12 RISK MANAGEMENT

The Fund is exposed to various risks of loss related to tort, theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters. The Fund carries commercial insurance to reduce its exposure to risk of loss. There is no significant change in insurance coverage from year to year. Settled claims resulting from these risks have not exceeded commercial insurance coverage in any of the past three fiscal years.

REQUIRED SUPPLEMENTARY INFORMATION

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

(A Component Unit of the City of Chicago)

Required Supplementary Information

Schedule of Changes in Net Pension Liability

As of December 31 - Last 3 Years

(Unaudited)

	<u>2016</u>	<u>2015</u>	<u>2014</u>
<i>Total pension liability</i>			
Service cost, including pension plan administrative expense	\$ 220,569,553	\$ 213,584,647	\$ 199,435,084
Interest on the total pension liability	851,098,457	832,972,131	791,693,017
Benefit changes	606,249,791	-	-
Difference between expected and actual experience	1,801,353	(105,968,891)	-
Assumption changes	112,585,241	-	845,070,287
Benefit payments	(696,491,103)	(668,950,080)	(645,688,934)
Refunds	(10,704,842)	(7,826,847)	(8,991,636)
Pension plan administrative expense	(4,749,762)	(4,508,519)	(4,240,625)
Net change in total pension liability	1,080,358,688	259,302,441	1,177,277,193
Total pension liability – beginning	<u>12,032,733,000</u>	<u>11,773,430,559</u>	<u>10,596,153,366</u>
Total pension liability – ending (a)	<u>13,113,091,688</u>	<u>12,032,733,000</u>	<u>11,773,430,559</u>
<i>Plan fiduciary net position</i>			
Employer contributions	272,427,716	572,836,100	177,417,827
Employee contributions	101,475,864	107,626,311	95,675,538
Pension plan net investment (loss) income	142,699,124	(5,333,795)	181,901,293
Benefit payments	(696,491,103)	(668,950,080)	(645,688,934)
Refunds	(10,704,842)	(7,826,847)	(8,991,636)
Pension plan administrative expense	(4,749,762)	(4,508,519)	(4,240,625)
Other	1,412,770	3,091,545	740,305
Net change in plan fiduciary net position	(193,930,233)	(3,065,285)	(203,186,232)
Plan fiduciary net position – beginning	<u>3,058,949,037</u>	<u>3,062,014,322</u>	<u>3,265,200,554</u>
Plan fiduciary net position – ending (b)	<u>2,865,018,804</u>	<u>3,058,949,037</u>	<u>3,062,014,322</u>
Net pension liability – ending (a)-(b)	<u>\$ 10,248,072,884</u>	<u>\$ 8,973,783,963</u>	<u>\$ 8,711,416,237</u>

The above information was required beginning in 2014. Information for the next seven years will be presented in future years.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

(A Component Unit of the City of Chicago)

Required Supplementary Information

Notes to Schedule of Changes in Net Pension Liability

For the Years Ended December 31, 2016 and 2015

(Unaudited)

Beginning of year total pension liability for 2016 used a Single Discount Rate of 7.15% and the benefit provisions, actuarial assumptions and funding policy in effect as of the December 31, 2015 funding actuarial valuation. The Single Discount Rate of 7.15% was based on a long-term expected rate of return on pension plan investments of 7.5% used in the December 31, 2015, funding actuarial valuation for the years 2015 through 2063 and a long-term municipal bond rate as of December 31, 2015, of 3.57% for subsequent years.

End of year total pension liability for 2016 uses a Single Discount Rate of 7.07% and the benefit provisions, actuarial assumptions and funding policy in effect as of the December 31, 2016, funding actuarial valuation. The Single Discount Rate of 7.07% was based on a long-term expected rate of return on pension plan investments of 7.25% used in the December 31, 2016 funding actuarial valuation for the years 2016 through 2068 and a long-term municipal bond rate as of December 29, 2016, of 3.78% for subsequent years.

The increase in total pension liability for 2016 due to benefit changes is a result of the change in plan provisions pursuant to P.A. 99-0905. This change was measured at the end of the year using a Single Discount Rate of 7.15%.

The increase in the total pension liability for 2016 due to assumption changes and methods includes the impact of changing the funding policy, investment return assumption and inflation rate assumption used in the funding actuarial valuation, and the change in the municipal bond rate from December 30, 2015, to December 29, 2016. Changes in actuarial assumptions, methods, plan provisions and statutory funding policy led to the change in the Single Discount Rate from 7.15% to 7.07% (based on the long-term expected rate of return on pension plan investments of 7.50% used in the December 31, 2015, funding actuarial valuation and 7.25% used in the December 31, 2016, funding actuarial valuation and the long-term municipal bond rate of 3.57% as of December 30, 2015, and 3.78% as of December 29, 2016, respectively). This change was measured at the end of the year using the benefit provisions in effect as of December 31, 2016.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

(A Component Unit of the City of Chicago)

Required Supplementary Information

Schedule of Net Pension Liability

As of December 31 - Last 3 Years

(Unaudited)

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Total pension liability	\$ 13,113,091,688	\$ 12,032,733,000	\$ 11,773,430,559
Plan fiduciary net position	<u>2,865,018,804</u>	<u>3,058,949,037</u>	<u>3,062,014,322</u>
Net pension liability	<u>\$10,248,072,884</u>	<u>\$ 8,973,783,963</u>	<u>\$ 8,711,416,237</u>
Plan fiduciary net position as a percentage of total pension liability	21.85%	25.42%	26.01%
Covered employee payroll	<u>\$1,119,526,987</u>	<u>\$ 1,086,607,979</u>	<u>\$ 1,074,333,318</u>
Net pension liability as a percentage of covered employee payroll	915.39%	825.85%	810.87%

The above information is required beginning in 2014. Information for the next seven years will be presented in future years.

POLICEMEN’S ANNUITY AND BENEFIT FUND OF CHICAGO

(A Component Unit of the City of Chicago)

Required Supplementary Information

Schedule of Contributions—Pension

Last 10 Years

(Unaudited)

Year Ended	Actuarially Determined Contribution (a)*	Actual Contribution (b)	Contribution Deficiency (Excess) (c) = (b)-(a)	Covered Payroll (d)**	Actual Contribution as a % of Covered Payroll (e) = (b)/(d)	Statutory Contribution (f)	Statutory Contribution Deficiency/ (Excess) (g) = (f)-(b)**
12/31/07	\$ 312,726,608	\$ 170,598,268	\$ 142,128,341	\$1,038,957,026	16.42%	\$ 170,112,293	\$ (485,975)
12/31/08	318,234,870	172,835,805	145,399,065	1,023,580,667	16.89%	175,080,814	2,245,009
12/31/09	339,488,187	172,043,784	167,444,403	1,011,205,359	17.01%	177,333,569	5,289,785
12/31/10	363,624,570	174,500,507	189,124,063	1,048,084,301	16.65%	177,060,837	2,560,330
12/31/11	402,751,961	174,034,600	228,717,361	1,034,403,526	16.82%	176,068,606	2,034,006
12/31/12	431,010,173	197,885,552	233,124,621	1,015,170,686	19.49%	204,329,314	6,443,762
12/31/13	474,177,604	179,521,259	294,656,345	1,015,426,128	17.68%	182,716,690	3,195,431
12/31/14	491,651,208	178,158,132	313,493,076	1,074,333,318	16.58%	178,773,877	615,745
12/31/15	785,500,836	575,927,645	209,573,191	1,086,607,979	53.00%	410,558,466	(165,369,179)
12/31/16	785,695,084	273,840,486	511,854,598	1,119,526,987	24.46%	454,844,486	181,004,000

* The Fund’s Statutory Funding does not conform to Actuarial Standards of Practice; therefore, the 2015 and 2016 actuarially determined contribution is equal to the normal cost plus a 30-year level dollar amortization of the unfunded actuarial liability. Prior to 2015, the actuarially determined contribution was equal to the “ARC”, which was equal to the normal cost plus a 30-year open level percent amortization of the unfunded actuarial liability.

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

*** Excludes amount paid for health insurance supplement beginning in 2006.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

(A Component Unit of the City of Chicago)

Required Supplementary Information

Notes to Schedule of Contributions—Pension

(Unaudited)

Valuation Date: December 31, 2016 and 2015

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

Actuarial Cost Method: Entry-Age Normal

Amortization Method: Prior to 2015, the total City contribution was generated by a tax equal to 2.00 times the contributions by the policemen to the Fund two years prior to the year of the tax levy. For tax levy years 2015-2019, the statutory contributions are equal to \$420 million, \$464 million, \$500 million, \$557 million and \$579 million, respectively. For tax levy 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% funded ratio by the end of 2055 on an open group basis.

Remaining Amortization Period: Not applicable. An amortization payment is not directly calculated. The amortization payment is the difference between the total statutory contribution and the employer normal cost contribution.

Asset Valuation Method: Five-year smoothed market

Inflation: 2.75% as of the December 31, 2016 actuarial valuation
3.00% as of the December 31, 2015 actuarial valuation

Salary Increases: Salary increase rates based on age-related productivity and merit rates plus wage inflation of 3.75%.

Postretirement Benefit Increases: A retiree born before January 1, 1966, with at least 20 years of service or receiving a mandatory retirement minimum annuity, receives an increase of 3% 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% maximum increase. For retirees born after January 1, 1966, automatic increases are 1.5% of the original annuity, commencing at age 60, or the first anniversary of retirement, if later, to a maximum of 30%. For participants that first became members on or after January 1, 2011, increases are equal to the lesser of 3% and 50% of CPI-U of the original benefit, commencing at age 60.

Investment Rate of Return: 7.25% as of the December 31, 2016 actuarial valuation
7.50% as of the December 31, 2015 actuarial valuation

POLICEMEN’S ANNUITY AND BENEFIT FUND OF CHICAGO

(A Component Unit of the City of Chicago)

Required Supplementary Information

Notes to Schedule of Contributions—Pension (*continued*)

(Unaudited)

Methods and Assumptions Used to Determine Contribution Rates as of the Valuation Date (*continued*):

Retirement Age: Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the December 31, 2014, actuarial valuation pursuant to an experience study for the period January 1, 2009 through December 31, 2013.

Mortality: Post-Retirement Healthy mortality rates: Sex Distinct Retirement Plans 2014 Healthy Annuitant mortality table weighted 108% for males and 97% for females.

Pre-retirement mortality rates: Sex Distinct Retirement Plans 2014 Total Employee mortality table weighted 85% for males and 115% for females.

Disabled Mortality: Sex Distinct Retirement Plans 2014 Healthy Annuitant mortality table weighted 115% for males and 115% for females.

Other: The actuarial valuation is based on the statutes in effect as of December 31, 2016. Benefit changes as a result of PA 99-0506 and PA 99-0905 were recognized in the Total Pension Liability as of December 31, 2016.

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

Actuarial Cost Method: Entry Age Normal

Asset Method: Market value

Discount Rate: 7.07% as of the December 31, 2016 actuarial valuation
7.15% as of the December 31, 2015 actuarial valuation

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

(A Component Unit of the City of Chicago)

Required Supplementary Information

Schedule of Money-Weighted Rate of Return—Pension

(Unaudited)

<u>Year Ended</u>	<u>Annual Money-Weighted Rate of Return, Net of Investment Expense</u>
12/31/14	6.24%
12/31/15	(0.41)
12/31/16	6.66

The above information is required beginning in 2014. Information for the next seven years will be presented in future years.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
(A Component Unit of the City of Chicago)
Required Supplementary Information
Schedule of Funding Progress—Health Insurance Supplement
Last 10 Years
(Unaudited)

<u>Actuarial Valuation Date</u>	<u>Actuarial Value of Assets (a)</u>	<u>Actuarial Accrued Liability (AAL) Entry Age (b)</u>	<u>Unfunded AAL (UAAL) (b-a)</u>	<u>Funded Ratio (a/b)</u>	<u>Covered Payroll (c)</u>	<u>UAAL as a Percentage of Covered Payroll [(b-a)/c]</u>
12/31/07	\$ -	\$179,039,841	\$179,039,841	0.00%	\$1,038,957,026	17.23%
12/31/08	-	169,972,156	169,972,156	0.00	1,023,580,667	16.61
12/31/09	-	164,799,819	164,799,819	0.00	1,011,205,359	16.30
12/31/10	-	164,796,449	164,796,449	0.00	1,048,084,301	15.72
12/31/11	-	165,954,869	165,954,869	0.00	1,034,403,526	16.04
12/31/12	-	165,811,118	165,811,118	0.00	1,015,170,686	16.63
12/31/13	-	28,375,681*	28,375,681	0.00	1,015,426,128	2.79
12/31/14	-	18,762,125	18,762,125	0.00	1,074,333,318	1.75
12/31/15	-	9,255,090	9,255,090	0.00	1,086,607,979	0.85
12/31/16	-	-	-	0.00	1,119,526,987	0.00

* Due to Public Act 98-0043, effective June 28, 2013, the health insurance supplement in effect prior to June 30, 2013 expired on December 31, 2016.

POLICEMEN’S ANNUITY AND BENEFIT FUND OF CHICAGO
(A Component Unit of the City of Chicago)
Required Supplementary Information
Schedule of Employer Contributions—Health Insurance Supplement
Last 10 Years
(Unaudited)

<u>Year Ended</u>	<u>Contributions</u>			<u>Percentage Contributed</u>
	<u>Annual Required</u>	<u>Actual Employee</u>	<u>Actual Employer</u>	
12/31/07	\$ 11,220,081	\$ -	\$ 8,107,708	72.26%
12/31/08	11,348,959	-	8,850,186	77.98
12/31/09	11,810,766	-	9,266,431	78.46
12/31/10	10,659,006	-	9,354,163	87.76
12/31/11	10,538,116	-	9,591,394	91.02
12/31/12	10,473,478	-	9,765,686	93.24
12/31/13	10,429,882	-	9,847,310	94.41
12/31/14	9,723,621	-	9,657,123	99.32
12/31/15	9,632,405	-	9,441,534	98.02
12/31/16	9,468,955	-	9,155,514	96.69

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

(A Component Unit of the City of Chicago)

Notes to Required Supplementary Information—Health Insurance Supplement

For the Years Ended December 31, 2016 and 2015

(Unaudited)

Valuation date	December 31, 2016 and 2015
Actuarial cost method	Entry age normal
Actuarial value of assets	No assets (pay-as-you-go)
Amortization method	Level percent
Remaining amortization period	1 year closed-period for FY 2016 2 years closed-period for FY 2015 and beyond
<i>Actuarial assumptions</i>	
OPEB investment rate of return	4.50%
Projected salary increases	3.75% - per year, plus additional percentage related to service
Healthcare cost trend rate	0.00% (fixed-dollar subsidy)
General inflation rate	3.00%

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

(A Component Unit of the City of Chicago)

Required Supplementary Information

Schedule of Funding Progress—Staff Retiree Health Plan

Last 10 Years

(Unaudited)

<u>Actuarial Valuation Date</u>	<u>GASB Value of Assets (a)</u>	<u>Actuarial Accrued Liability (AAL) Entry Age (b)</u>	<u>Unfunded AAL (UAAL) (b-a)</u>	<u>Funded Ratio (a/b)</u>	<u>Covered Payroll (c)</u>	<u>UAAL as a Percentage of Covered Payroll ([b-a]/c)</u>
12/31/07	\$ -	\$ 3,021,300	\$ 3,021,300	0.00%	\$ 1,150,900	262.5%
12/31/08	-	3,239,700	3,239,700	0.00	1,202,700	269.4
12/31/09	-	3,474,800	3,474,800	0.00	1,256,800	276.5
12/31/10	-	5,588,688	5,588,688	0.00	1,486,848	375.9
12/31/11	-	5,971,137	5,971,137	0.00	1,553,756	384.3
12/31/12	-	6,376,689	6,376,689	0.00	1,623,675	392.7
12/31/13	-	5,212,127	5,212,127	0.00	1,276,471	408.3
12/31/14	-	5,538,553	5,538,553	0.00	1,304,207	424.7
12/31/15	-	5,883,114	5,883,114	0.00	1,476,561	398.4
12/31/16	-	6,221,517	6,221,517	0.00	1,620,867	383.8

POLICEMEN’S ANNUITY AND BENEFIT FUND OF CHICAGO
(A Component Unit of the City of Chicago)
Required Supplementary Information
Schedule of Employer Contributions—Staff Retiree Health Plan
Last 10 Years
(Unaudited)

<u>Year Ended</u>	<u>Contributions</u>			<u>Percentage Contributed</u>
	<u>Annual Required</u>	<u>Actual Employee</u>	<u>Actual Employer</u>	
12/31/07	\$ 261,500	\$ -	\$ 88,800	34.0%
12/31/08	274,600	-	104,700	38.1
12/31/09	290,600	-	121,000	41.6
12/31/10	434,005	-	127,630	29.4
12/31/11	453,535	-	133,373	29.4
12/31/12	478,309	-	169,882	35.5
12/31/13	394,221	-	108,262	27.5
12/31/14	409,004	-	123,263	30.1
12/31/15	429,179	-	152,574	35.6
12/31/16	450,328	-	181,612	40.3

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

(A Component Unit of the City of Chicago)

Notes to Required Supplementary Information—Staff Retiree Health Plan

For the Years Ended December 31, 2016 and 2015

(Unaudited)

Valuation date	December 31, 2013
Actuarial cost method	Entry age normal
Actuarial value of assets	No assets (pay-as-you-go)
Amortization method	Level percent open
Remaining amortization period	30 years
<i>Actuarial assumptions</i>	
OPEB investment rate of return	4.50% per year
Wage inflation	3.75% per year
Healthcare cost trend rate	8.5% - 2015 8.0% - 2016, graded down to 5.0% per year, ultimate trend in 0.5% increments

SUPPLEMENTARY INFORMATION

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

(A Component Unit of the City of Chicago)

Schedule of Administrative Expenses

For the Years Ended December 31, 2016 and 2015

	<u>2016</u>	<u>2015</u>
<i>Administrative expenses</i>		
Actuary services	\$ 102,337	\$ 94,325
Benefits disbursement	279,203	211,239
Equipment service and rent	190,094	178,369
External auditors	73,400	53,600
Fiduciary insurance	141,367	131,285
Legal services	481,419	389,745
Medical consultants	354,714	466,348
Miscellaneous	264,585	328,414
Occupancy and utilities	309,459	262,441
Personnel salaries and benefits	2,064,125	1,927,138
Postage	9,650	8,500
Supplies	9,927	11,149
Total administrative expenses	<u><u>\$ 4,280,280</u></u>	<u><u>\$ 4,062,553</u></u>

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

(A Component Unit of the City of Chicago)

Schedule of Consulting Costs

For the Years Ended December 31, 2016 and 2015

	<u>2016</u>	<u>2015</u>
<i>Payments to consultants</i>		
External auditors	\$ 73,400	\$ 53,600
Medical consultants	354,714	466,348
Legal services	481,419	389,745
Actuary service	102,337	94,325
Investment management fees	8,528,425	8,552,490
Custodial fees	312,500	257,093
Investment consulting fees	507,596	504,207
Total consulting costs	<u>\$ 10,360,391</u>	<u>\$ 10,317,808</u>

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

(A Component Unit of the City of Chicago)

Schedule of Investment Fees

For the Years Ended December 31, 2016 and 2015

	<u>2016</u>	<u>2015</u>
<i>Investment managers</i>		
Acadian Asset Management	\$ 795,017	\$ 756,419
Artisan Partners	809,829	873,049
Denali Advisors	246,354	229,037
Earnest Partners	774,487	808,477
European Investors	-	823
Fisher Investments	671,646	801,342
Great Lakes Advisors	309,332	371,872
Holland Capital Management	334,896	329,467
ING Clarion	94,620	92,544
Invesco Capital Management	375,000	281,250
Lazard Asset Management	553,194	541,458
LM Capital Group	211,668	162,841
MacKay Shields LLC	406,077	106,401
Manulife Asset Management	436,759	247,710
Montag & Caldwell	185,437	264,500
Northern Trust Global Investments - Index Funds	30,235	21,197
Taplin, Canida, & Habacht	-	39,479
UBS Global Asset Management	420,791	426,697
Wellington Management	379,999	461,060
Wells Capital Management	312,018	403,281
William Blair & Co.	1,181,066	1,333,586
Total investment manager fees	<u>8,528,425</u>	<u>8,552,490</u>
<i>Investment consultants</i>		
Elkins McSherry Inc.	20,000	20,000
NEPC LLC	487,596	484,207
Total investment consultants fees	<u>507,596</u>	<u>504,207</u>
<i>Master custodian</i>		
The Northern Trust Company	312,500	257,093
Total investment fees	<u><u>\$ 9,348,521</u></u>	<u><u>\$ 9,313,790</u></u>

