

**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, 2017 and 2016
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, 2017 and 2016

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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, 2017 and 2016, 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.

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MITCHELL TITUS

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, 2017 and 2016, 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 28, 2018

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 administrative costs of maintaining a defined benefit pension plan.

Financial Highlights

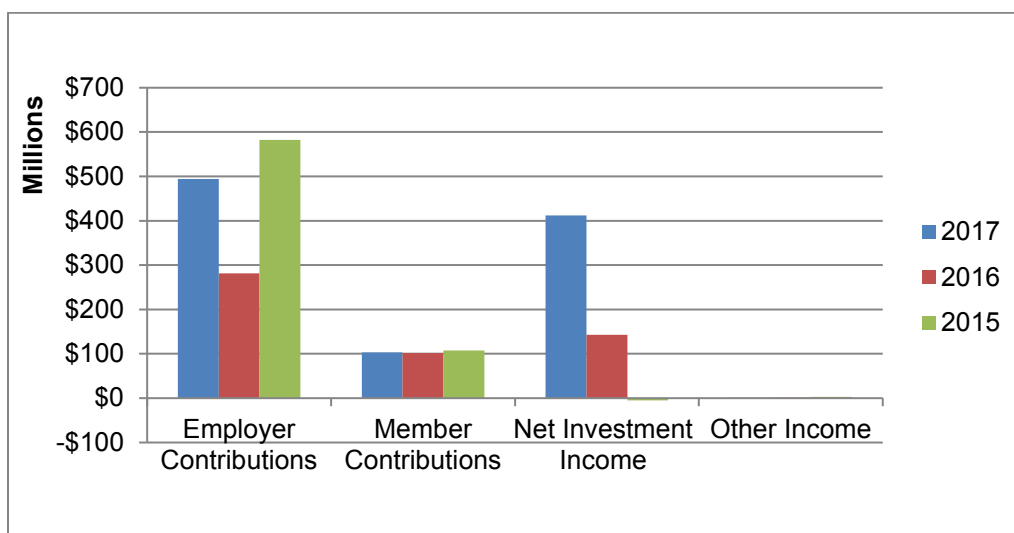
- The fiduciary net position of the Fund increased by \$257.1 million, or 9.0%, to \$3,122.1 million at December 31, 2017. At December 31, 2016, the fiduciary net position of the Fund decreased by \$193.9 million, or 6.3%, to \$2,865.0 million from the December 31, 2015 balance of \$3,058.9 million.

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 2017, these additions totaled \$1,009.8 million versus \$527.2 million in 2016, which is a 91.5% increase. The Fund experienced strong investment results in 2017, with net income from investing activities of approximately \$412.2 million, which is a significant contributor of the increase. The Fund earned an investment return of 17.15% in 2017, versus a return of 6.66% in 2016. The favorable return in 2017 was mostly attributable to the total equity portfolio returning 29% which comprises over 50% of the Fund's investments. From a financial markets perspective, 2017 was a buoyant year across all global equity markets, driven by renewed evidence of growth in Europe and improving economic indicators in the US and Emerging Markets. A rising interest rate environment, a firming oil price and initial indications of inflation have acted as a check on markets, but overall 2017 was marked by exceptionally low levels of volatility and US markets that gained over 20% (Russell 2000).
- A significant increase in employer contributions was also an important factor in the additions to the Fund. In 2016, with the passing of Public Act 099-0506 (PA 99-0506) on May 30, 2016, the full amount of the 2015 employer contribution receivable of \$579.8 million was not received in 2016. The amount collected was reduced by approximately \$173 million, in accordance with the Illinois Pension Statutes. For financial reporting purposes, this difference of \$173 million was recorded as a reduction to the 2016 employer contributions. In 2017, the employer contributions significantly increased by \$212.9 million, reflecting a full year of contributions required by PA-0506.

ADDITIONS 2015 - 2017

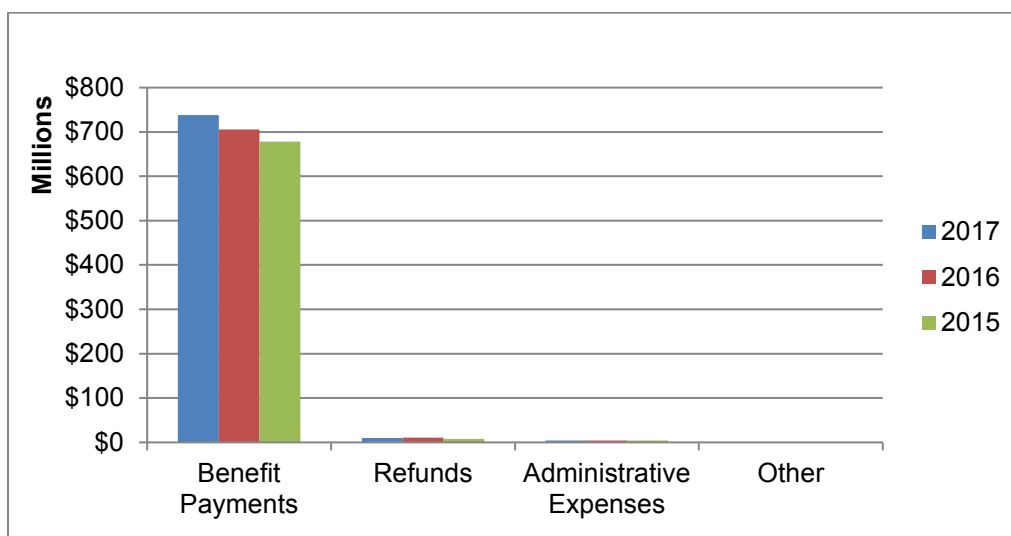


MANAGEMENT'S DISCUSSION AND ANALYSIS (unaudited)

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 surviving spouses and children. Deductions consist primarily of pension and disability benefits, death benefits, refunds of employee deductions, and administrative expenses. In 2017, these deductions totaled \$752.7 million and were \$721.1 million in 2016, which is a 4.4% increase. This increase is attributable primarily to the number of retirees and beneficiaries receiving benefit payments, which increased in 2017 by 234 members to 13,628, the highest member count in Fund history.
- Also contributing to the increase in deductions and benefit payments is the enactment of Public Act 99-0905 (PA 99-0905) on November 29, 2016, which enhanced the cost-of-living increases applicable to members born between January 1, 1955, and January 1, 1966, and provided increased benefits to qualifying annuitants such that the minimum annuity paid cannot be less than 125% of the Federal poverty level. Increased benefit payments were made in 2017 to the members impacted; with each legislative provision impacting over 1,000 retirees and surviving spouses.

DEDUCTIONS 2015 - 2017



- Benefit payments, excluding death benefits and refunds, increased by approximately \$31.9 million in 2017 to \$736.0 million from \$704.1 million in 2016. Death benefits and refunds of employee deductions decreased slightly from 2016 to 2017 by approximately \$0.4 million, from \$12.3 million to \$11.9 million, respectively.
- Administrative expenses increased slightly by approximately \$0.07 million, or 1.6%, from \$4.28 million in 2016 to \$4.35 million in 2017. The increased administrative expense was due primarily to increased legal services, and costs associated with computer system upgrades made to the pension administration system.

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 an increase from 22.3% at December 31, 2016 to 23.8% at December 31, 2017. The increase reflects favorable demographic experience and favorable investment experience in 2017, as compared to the actuarial assumptions. Specifically, salary changes and mortality experience were two large contributions to the actuarial gains, and investment returns significantly exceeded the assumed rate of 7.25%. For the year ended December 31, 2016, the Fund experienced a decrease in the funding ratio primarily due to assumption changes and legislation, including the impact of changing the funding policy, investment return assumption and inflation rate assumption used in the funding actuarial valuation.
- For accounting and financial reporting pursuant to GASB 67 and 68, which uses a Single Discount Rate that reflects: (1) a long-term expected rate of return on pension plan investments (to the extent that the Fund's fiduciary net position is projected to be sufficient to pay benefits) and (2) a tax-exempt municipal bond rate as of the measurement date (to the extent that the contributions for use with the long-term expected rate or return are not met), the Fund's net pension liability increased by \$84,323,386 from \$10,248,072,884 as of December 31, 2016, to \$10,332,396,270 at December 31, 2017. Changes in the actuarial assumptions and methods led to the change in the Single Discount Rate from 7.07% to 7.00% (based on the long-term expected rate of return on investments of 7.25% used in the December 31, 2016, and December 31, 2017, actuarial valuations and the long-term municipal bond rate of 3.78% as of December 29, 2016, and 3.31% as of December 30, 2017, 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 \$0.50 million and \$0.47 million were recognized in 2017 and 2016, respectively, resulting in a total accrued liability of \$2.95 million and \$2.66 million as of December 31, 2017 and 2016, 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, 2017, 2016, and 2015

	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2017-2016</u> <u>Change</u>	
				<u>\$</u>	<u>%</u>
Receivables	\$ 497.0	\$ 460.2	\$ 591.6	\$ 36.8	8.0 %
Brokers–unsettled trades	139.7	114.3	89.8	25.4	22.2
Investments, at fair value	2,702.3	2,485.2	2,520.3	217.1	8.7
Invested securities lending cash collateral	<u>146.5</u>	<u>177.8</u>	<u>93.1</u>	<u>(31.3)</u>	<u>(17.6)</u>
Total assets	<u>3,485.5</u>	<u>3,237.5</u>	<u>3,294.8</u>	<u>248.0</u>	<u>7.7</u>
Brokers–unsettled trades	207.3	186.9	135.5	20.4	10.9
Securities lending payable	146.5	177.8	93.1	(31.3)	(17.6)
OPEB obligation	2.9	2.7	2.4	0.2	7.4
Refunds and accounts payable	<u>6.7</u>	<u>5.1</u>	<u>4.9</u>	<u>1.6</u>	<u>31.4</u>
Total liabilities	<u>363.4</u>	<u>372.5</u>	<u>235.9</u>	<u>(9.1)</u>	<u>(2.4)</u>
Net position	<u>\$ 3,122.1</u>	<u>\$ 2,865.0</u>	<u>\$ 3,058.9</u>	<u>\$ 257.1</u>	<u>9.0 %</u>

Overall, the fiduciary net position increased \$257.1 million, or 9.0%, primarily due to the strong investment performance of the Fund's portfolio and an increase in employer contributions. The Fund's investment portfolio earned an investment return of 17.15% in 2017, which includes the results of the Fund's sale of much of its private equity portfolio in December of 2017. The Fund sold the majority of its private equity holdings (which formerly totaled over 4% of the Fund) on the secondary market in a transaction that closed in December 2017. Proceeds of the sale are held in invested cash as of December 31, 2017.

As of December 31, 2017 and 2016, the amount recorded as receivables includes the employer contributions receivable under the provisions of PA 99-0506. The funding provisions of PA 99-0506 are significantly different than PA-1495, which was in effect at December 31, 2015. Pursuant to PA 99-0506, the funding policy requires City contributions to be equal to \$500 million in payment year 2018. Subsequent collections of each tax levy year are as follows: 2019 - \$557 million; and 2020 - \$579 million. For the payment years 2021 through 2055, the employer 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, 2017, 2016 and 2015

	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2017-2016</u> <u>Change</u>	
				<u>\$</u>	<u>%</u>
ADDITIONS					
Member contributions	\$ 103.0	\$ 101.5	\$ 107.6	\$ 1.5	1.5 %
Employer contributions	494.5	281.6	582.3	212.9	75.6
Net investment gain (loss) and investment income	411.4	142.1	(6.0)	269.3	189.5
Securities lending income	0.8	0.6	0.7	0.2	33.3
Miscellaneous income	<u>0.1</u>	<u>1.4</u>	<u>3.1</u>	<u>(1.3)</u>	<u>(92.9)</u>
Total additions	<u>1,009.8</u>	<u>527.2</u>	<u>687.7</u>	<u>482.6</u>	<u>91.5</u>
DEDUCTIONS					
Annuity, disability, and death benefits	737.9	705.6	678.4	32.3	4.6
Refunds of contributions	10.0	10.7	7.8	(0.7)	(6.5)
OPEB expense	0.5	0.5	0.4	-	-
Administrative expenses	<u>4.3</u>	<u>4.3</u>	<u>4.1</u>	<u>-</u>	<u>-</u>
Total deductions	<u>752.7</u>	<u>721.1</u>	<u>690.7</u>	<u>31.6</u>	<u>4.4</u>
Net increase/(decrease)	<u>\$ 257.1</u>	<u>\$ (193.9)</u>	<u>\$ (3.0)</u>	<u>\$ 451.0</u>	<u>(232.6)%</u>
<i>Net position restricted for pension benefits</i>					
Beginning of year	<u>\$ 2,865.0</u>	<u>\$ 3,058.9</u>	<u>\$ 3,062.0</u>	<u>\$ (193.9)</u>	<u>(6.3)%</u>
Ending of year	<u>\$ 3,122.1</u>	<u>\$ 2,865.0</u>	<u>\$ 3,058.9</u>	<u>\$ 257.1</u>	<u>9.0 %</u>

The Fund experienced an increase in fiduciary net position of \$257.1 million in 2017. While an overall increase in the net fiduciary position was experienced, benefit payments also continue to increase each year. The Fund experienced a large increase in retirements of active members in 2017. Contractual terms between the employer and the Fraternal Order of Police, Lodge 7, provided that police officers of at least 55 years of age, retiring prior to June 1, 2017, with over 20 years of service, receive free healthcare until the age of Medicare eligibility. Given these provisions, significant increases in retirements were experienced prior to June 1, 2017.

As noted, due to the enactment of PA 99-0506, the 2015 employer contributions were not collected in their entirety. The amount collected was approximately \$173 million less than recorded as of December 31, 2015. For financial reporting purposes, this amount was reflected as a reduction to the 2016 employer contributions. Employer contributions for 2017 reflect the appropriate funding per the provisions of the Illinois Pension Statutes.

MANAGEMENT'S DISCUSSION AND ANALYSIS (unaudited)

Investment Activities

The Board approved certain changes in the asset allocation over the course of 2017. In February 2017, the Board approved a reduction in the target for Global Asset Allocation from 10% to 5%, as well as an increase in the target for private credit from 4% to 8% and for non-U.S. equity from 20% to 21%. The strategic allocation was unchanged for U.S. Equity (21%), Fixed Income and Cash (22%), Real Assets (4%), Private Equity (7%), Real Estate (5%), and Infrastructure (2%).

The Fund continues to prudently implement the strategic allocation approved by the Board of Trustees. In 2017, seven new investment managers were hired, of which, two managers were for real estate debt; two managers were for the long short equity allocation; one manager was for infrastructure; one manager was for a private debt and one manager designed to be a manager of managers for a completion portfolio in private debt.

Investment Returns

Years Ended December 31, 2017, 2016 and 2015

	<u>2017</u>	<u>2016</u>	<u>2015</u>
Total fund (%)	17.15%	6.66%	(0.41)%
Equities	29.10	6.16	(1.30)
Fixed income	4.18	4.36	(1.07)
Alternatives	12.62	8.02	(5.35)
Real estate	5.43	6.01	4.99
Private capital	3.88	7.89	9.72
Cash and cash equivalents	1.00	0.58	0.14

Private capital consists of investments in private equity, private credit 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, 2017, 2016 and 2015.

Plan Membership

As of December 31, 2017, 2016 and 2015

	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2017-2016</u>	
				<u>Change</u>	<u>%</u>
Retirees and beneficiaries receiving benefits	13,628	13,394	13,210	234	1.7%
Active employees	12,633	12,177	12,061	456	3.7
Terminated (inactive members) employees entitled to benefits or refunds of contributions	<u>640</u>	<u>606</u>	<u>637</u>	<u>34</u>	<u>5.6</u>
Total	<u><u>26,901</u></u>	<u><u>26,177</u></u>	<u><u>25,908</u></u>	<u><u>724</u></u>	<u><u>2.8%</u></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 an increase from 22.3% at December 31, 2016 to 23.8% at December 31, 2017. During 2014, the Fund adopted GASB No. 67, which 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, 2017 and 2016, were 23.2% and 21.9%, respectively. Discount rates used in the GASB No. 67 valuation were 7.00% and 7.07% as of December 31, 2017, and 2016, respectively.

In 2016, certain assumptions were changed which included the investment return assumption and the inflation rate assumption. Actuarial information presented as of December 31, 2017 and 2016 reflects these assumption changes.

Effective May 30, 2016, the Illinois Pension Statutes regarding employer contributions to the Fund were changed by Public Act 099-0506. In accordance with Public Act 099-0506, the funding policy requires that contributions from the City of Chicago, as employer, 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. The 2016 employer contributions on the statements of fiduciary net position reflect the employer contributions as of December 31, 2015, which were not collectable in 2016 due to the change in Pension Statutes.

As currently provided in the applicable provisions of Public Act 099-0506, the funded ratio of the Fund is projected to increase slowly in future years, with anticipated considerable increases from the employer in years significantly into the future. The Fund continues to be heavily dependent upon employer contributions to fund benefit payments to members now and in future years.

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, 2017 and 2016

	<u>2017</u>	<u>2016</u>
ASSETS		
Cash	\$ 250	\$ 250
<i>Receivables</i>		
Employer tax levies, net of allowance for loss of \$37,047,204 in 2017 and \$33,657,561 in 2016	486,151,716	449,291,702
Member contributions	5,019,464	4,912,517
Interest and dividends	5,822,061	5,990,469
Accounts receivable—due from brokers	139,702,728	114,331,679
	<u>636,695,969</u>	<u>574,526,367</u>
<i>Investments, at fair value</i>		
U.S. common stock and other equity	483,368,980	495,799,608
Collective investment funds, stock	245,941,487	241,200,644
Collective investment funds, international equities	36,222,231	22,500,765
Collective investment funds, fixed income	170,641,311	146,788,365
Collective investment funds, international fixed income	112,135,048	103,159,063
International equity	720,385,794	572,324,412
U.S. bonds and notes	473,953,673	499,507,343
International bonds and notes	39,339,047	35,949,360
Short-term instruments	156,035,625	94,260,116
Infrastructure	26,855,526	26,030,921
Forward contracts and swaps	27,924,125	19,302,497
Hedge fund-of-funds	100,082,750	20,739,009
Real estate	72,809,905	74,675,801
Venture capital and private equity	36,607,996	132,946,934
	<u>2,702,303,498</u>	<u>2,485,184,838</u>
Invested securities lending cash collateral	146,521,469	177,836,930
Total assets	<u>3,485,521,186</u>	<u>3,237,548,385</u>
LIABILITIES		
Refunds and accounts payable	6,734,372	5,124,515
Trade accounts payable—due to brokers	207,254,031	186,906,407
Securities lending cash collateral	146,521,469	177,836,930
OPEB obligation	2,945,021	2,661,729
Total liabilities	<u>363,454,893</u>	<u>372,529,581</u>
Net position restricted for pension benefits	<u>\$ 3,122,066,293</u>	<u>\$ 2,865,018,804</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, 2017 and 2016

	<u>2017</u>	<u>2016</u>
ADDITIONS		
<i>Contributions</i>		
Employer	\$ 494,483,191	\$ 281,583,230
Plan member salary deductions	103,011,250	101,475,864
Total contributions	<u>597,494,441</u>	<u>383,059,094</u>
<i>Investment income</i>		
Net appreciation in the fair value of investments	371,090,439	105,369,451
Interest	19,437,993	17,485,571
Dividends	29,272,410	25,491,062
Real estate income	1,749,558	3,092,121
	<u>421,550,400</u>	<u>151,438,205</u>
<i>Investment activity expenses</i>		
Investment management fees	(9,053,006)	(8,528,425)
Custodial fees	(255,135)	(312,500)
Investment consulting and other fees	(821,236)	(507,596)
Total investment activity expenses	<u>(10,129,377)</u>	<u>(9,348,521)</u>
Net income from investing activities	<u>411,421,023</u>	<u>142,089,684</u>
<i>From securities lending activities</i>		
Securities lending income	2,150,479	535,566
Borrower rebates, net of related fees	(1,254,123)	167,649
Bank fees	(126,975)	(93,775)
Net income from securities lending activities	<u>769,381</u>	<u>609,440</u>
Total net investment income	<u>412,190,404</u>	<u>142,699,124</u>
Miscellaneous income	97,239	1,412,770
Total additions	<u>1,009,782,084</u>	<u>527,170,988</u>
DEDUCTIONS		
Pension and disability benefits	736,026,328	704,076,617
Death benefits	1,847,600	1,570,000
Refunds of employee deductions	10,017,655	10,704,842
	<u>747,891,583</u>	<u>716,351,459</u>
Administrative expenses	4,345,134	4,280,280
OPEB expense	497,878	469,482
Total deductions	<u>752,734,595</u>	<u>721,101,221</u>
Net Increase (decrease)	257,047,489	(193,930,233)
<i>Net position restricted for pension benefits</i>		
Beginning of year	2,865,018,804	3,058,949,037
End of year	<u>\$ 3,122,066,293</u>	<u>\$ 2,865,018,804</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, 2017 and 2016

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

(A Component Unit of the City of Chicago)

Notes to Financial Statements

Years Ended December 31, 2017 and 2016

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.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

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Notes to Financial Statements

Years Ended December 31, 2017 and 2016

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

Recent Accounting Pronouncements

The following standards were adopted by the Fund during 2017 and 2016:

GASB Statement No. 82, *Pension Issues*, was established to address certain issues that have been raised with respect to GASB Statements No. 67, 68, and 73. Specifically, this Statement addresses issues regarding (1) the presentation of payroll-related measures in required supplementary information, (2) the selection of assumptions and the treatment of deviations from the guidance in an Actuarial Standard of Practice for financial reporting purposes, and (3) the classification of payments made by employers to satisfy employee (plan member) contributions requirements. During the year ended December 31, 2017, the Fund adopted GASB Statement No. 82. Implementation had no impact on the reporting amounts in the Statements of Fiduciary Net Position.

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 Statement No. 75, *Accounting and Financial Reporting for Post-Retirement Benefits Other Than Pension Plans* was issued in June of 2015. The primary objective of this Statement is to improve accounting and financial reporting by government entities for post-retirement benefits other than pensions. The Fund will adopt GASB No. 75 for its December 31, 2018, financial statements.

GASB Statement No. 87, *Leases* was issued in June of 2017. The primary objective of this Statement is to improve accounting and financial reporting for leases by government entities. This Statement will require recognition of certain leases that were previously categorized as operating leases. The Fund will adopt GASB No. 87 for its December 31, 2019, 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, 2017 and 2016

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, 2017 and 2016 were \$1,150,406,094 and \$1,119,526,987, respectively. At December 31, 2017 and 2016, the Fund’s membership consisted of the following:

	<u>2017</u>	<u>2016</u>
Active employees	12,633	12,177
Retirees and beneficiaries currently receiving benefits	13,628	13,394
Terminated employees entitled to benefits or a refund of contributions, but not yet receiving them	<u>640</u>	<u>606</u>
	<u>26,901</u>	<u>26,177</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.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

(A Component Unit of the City of Chicago)

Notes to Financial Statements

Years Ended December 31, 2017 and 2016

NOTE 2 PENSION PLAN *(continued)*

Plan Description and Contribution Information *(continued)*

Effective November 29, 2016, Public Act 99-0905 (PA 99-0905) 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 were payable as of January 1, 2017, but no retroactive increases prior to such date were to be provided. In addition, under PA 99-0905, 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.

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, 2017 and 2016

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 2016 and 2017.

The total pension liability at December 31, 2017 and 2016, was \$13,454,462,563 and \$13,113,091,688, respectively. The plan fiduciary net position at December 31, 2017 and 2016 was \$3,122,066,293 and \$2,865,018,804, respectively. The net pension liability at December 31, 2017 and 2016 was \$10,332,396,270 and \$10,248,072,884, respectively. The Single Discount Rate of 7.00% required by GASB Statement No. 67 as of December 31, 2017, 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 3.31%. The Single Discount Rate of 7.07% 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%.

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 and related subsidy paid by the Fund 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, 2017 and 2016

NOTE 3 HEALTH INSURANCE SUPPLEMENT *(continued)*

Plan Description and Contribution Information *(continued)*

Effective in 2017, pursuant to the June 29, 2017, Appellate Court order, certain retirees are entitled to receive the 1983 provided subsidies of \$55 per month if non-Medicare-eligible and \$21 per month if Medicare-eligible subsidies. This obligation is not reflected as an actuarial accrued liability as of December 31, 2017, or 2016, as the matter remains in the Circuit Court to determine the mechanics and specific members eligible for the requisite payments.

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

The supplemental payments by the Fund in 2016 were 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, the number of annuitants or surviving spouses who had subsidized health insurance totaled 10,268. Of the 3,126 remaining annuitants or surviving spouses, at December 31, 2016, substantially all were eligible for subsidized health insurance prior to December 31, 2016, subject to their election of such benefits, and successful completion of the City's enrollment procedures, which included certificate of insurability or an annual exam. Additionally, of the 606 terminated employees who were entitled to benefits or a refund at December 31, 2016, approximately 60 of the terminated employees were eligible for subsidized health insurance prior to December 31, 2016, subject to their election of such benefits 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, the Fund received contributions of \$9,155,514.

Contributions to the health insurance supplement were equal to the insurance subsidy payments to the City in. There were no net assets available for the health insurance supplement at December 31, 2017, or 2016.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

(A Component Unit of the City of Chicago)

Notes to Financial Statements

Years Ended December 31, 2017 and 2016

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, 2017 and 2016, were as follows:

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial 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)
12/31/17	-	\$ -	\$ -	0.00	\$1,150,406,094	0.00%
12/31/16	-	\$ -	\$ -	0.00	\$1,119,526,987	0.00%

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.

NOTE 4 CASH AND INVESTMENT RISK

Cash

The bank balance and carrying amount of the Fund's deposits at December 31, 2017, were \$510,442 and \$(127,263) respectively; and \$609,155 and \$(726,201) at December 31, 2016, respectively. These balances excluded \$250 of petty cash. The bank balance at December 31, 2017 and 2016 is on deposit with the City Treasurer and is insured or collateralized by securities held by the City Treasurer in the Fund's name.

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.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

(A Component Unit of the City of Chicago)

Notes to Financial Statements

Years Ended December 31, 2017 and 2016

NOTE 4 CASH AND INVESTMENT RISK *(continued)*

Money-Weighted Rate of Return

For the years ended December 31, 2017 and 2016, the annual money-weighted rate of return on the plan investments, net of investment expense, was 16.7% and 6.6%, respectively. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Investment Summary

The following table presents a summary of the Fund's investments by type at December 31, 2017 and 2016:

	<u>2017</u>	<u>2016</u>
Government and agency fixed income	\$ 227,353,917	\$ 226,704,847
Corporate fixed income	285,938,803	308,751,856
U.S. common collective fixed-income funds	170,641,311	146,788,365
Global common collective fixed-income funds	112,135,048	103,159,063
Global common collective equity funds	13,853,401	146,411,345
U.S. equities	483,368,980	495,799,608
U.S. common collective stock funds	232,088,086	94,789,299
International equity common collective funds	36,222,231	22,500,765
Foreign equities	720,385,794	572,324,412
Pooled short-term investment funds	118,519,186	57,098,582
Infrastructure	26,855,526	26,030,921
Real estate	72,809,905	74,675,801
Venture capital	36,607,996	132,946,934
Forward contracts and swaps	27,924,125	19,302,497
Hedge fund-of-funds	100,082,750	20,739,009
Cash and cash equivalents	37,516,439	37,161,534
Total investments at fair value	<u>\$ 2,702,303,498</u>	<u>\$ 2,485,184,838</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 MFB Northern Trust Collective Russell 1000 Index Fund – Non Lending, which amounted to \$232,088,086 as of December 31, 2017, and MFO GMO Global Asset Allocation Fund, which amounted to \$146,411,345 at December 31, 2016. There are no insurance contracts excluded from plan assets.

The Fund sold the majority of its private equity holdings (which formerly totaled over 4% of the Fund) on the secondary market in a transaction that closed in December 2017. The Fund realized a loss on the transaction, which is reflected in the net appreciation (depreciation) in the fair value of investments on the statement of changes in fiduciary net position of the Fund for the year ended December 31, 2017. The realized loss was not material to the financial statements of the Fund.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

(A Component Unit of the City of Chicago)

Notes to Financial Statements

Years Ended December 31, 2017 and 2016

NOTE 4 CASH AND INVESTMENT RISK *(continued)*

Investment Summary *(continued)*

The Fund's investments were managed by approximately 49 external investment managers during 2017 and 2016, 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.

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.
- 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. These investments do not have a readily determinable fair value.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
(A Component Unit of the City of Chicago)
Notes to Financial Statements
Years Ended December 31, 2017 and 2016

NOTE 4 CASH AND INVESTMENT RISK (continued)

Fair Value Measurements (continued)

The recurring fair value measurements for the year ended December 31, 2017 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	\$ 483,368,980	\$ 482,323,881	\$ 1,045,099	\$ -
Collective investment funds, stock	232,088,086	-	232,088,086	-
International equity	720,385,794	720,231,846	39,507	114,441
<i>Fixed income</i>				
U.S. bonds and notes	473,953,673	-	473,953,673	-
International bonds and notes	39,339,047	-	39,339,047	-
Cash equivalents and short-term instruments	156,035,625	25,815,852	130,219,773	-
Forward contracts and swaps	27,924,125	-	27,924,125	-
Real estate	15,099,845	15,099,845	-	-
Subtotal	<u>2,148,195,175</u>	<u>\$ 1,243,471,424</u>	<u>\$ 904,609,310</u>	<u>\$ 114,441</u>
Investments measured at net asset value				
Collective investment funds, stock	13,853,401			
Collective investment funds, international equities	36,222,231			
Collective investment funds, fixed	170,641,311			
Collective investment funds, international fixed	112,135,048			
Infrastructure	26,855,526			
Hedge fund-of-funds	100,082,750			
Real estate	57,710,060			
Venture capital and private equity	36,607,996			
Subtotal	<u>554,108,323</u>			
Total	<u>\$ 2,702,303,498</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, 2017 and 2016

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
Equities				
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
Fixed income				
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				
Forward contracts and swaps	19,302,497	-	19,302,497	-
Real estate	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.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
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Notes to Financial Statements
Years Ended December 31, 2017 and 2016

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 NAV per share as fair value measurement as of December 31, 2017 and 2016:

2017	Fair Value	Unfunded Commitments	Redemption Frequency (if Currently Eligible)	Redemption Notice Period
Collective investment funds, stock	\$ 13,853,401	\$ -	As needed	Daily
Collective investment funds, international equities	36,222,231	-	As needed	Daily
Collective investment funds, fixed	170,641,311	3,000,000	-	-
Collective investment funds, international fixed	112,135,048	6,450,460	-	-
Infrastructure	26,855,526	77,475,701	-	-
Hedge fund-of-funds	100,082,750	-	Quarterly	Up to 65 days
Real estate	57,710,060	43,426,524	-	-
Venture capital and private equity	36,607,996	67,740,126	-	-
	<u>\$ 554,108,323</u>			

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 at December 31, 2017 and 2016, which invest in equities diversified across all sectors.

Collective investment funds, fixed and international fixed: There are seven funds at December 31, 2017 and 2016, that invest in a variety of fixed income markets through various investments. Two of these funds are not eligible for redemption as of December 31, 2017, and four of these funds were not eligible for redemption as of December 31, 2016.

Infrastructure: There are three funds at December 31, 2017, and 2016, that invest in a variety of infrastructure assets through various investments. These funds are not eligible for redemption.

Hedge fund-of-funds: There are three funds at December 31, 2017, and one fund at December 31, 2016, that invest in a select group of underlying managers that implement a number of different alternative investment strategies and invest in a variety of markets through limited partnerships, limited liability companies and other investment entities. One of the funds was not available for redemption as of December 31, 2017.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

(A Component Unit of the City of Chicago)

Notes to Financial Statements

Years Ended December 31, 2017 and 2016

NOTE 4 CASH AND INVESTMENT RISK *(continued)*

Fair Value Measurements *(continued)*

Real estate, venture capital and private equity: The real estate investments consist of 17 and 15 core, value-add, and opportunistic real estate funds as of December 31, 2017 and 2016, respectively. The private market partnerships consist of 4 and 12 limited partnership interests as of December 31, 2017, and 2016, respectively. These funds invest 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.

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 2017 and 2016, 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.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO
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Notes to Financial Statements
Years Ended December 31, 2017 and 2016

NOTE 4 CASH AND INVESTMENT RISK (continued)

Investment Risks (continued)

At December 31, 2017, 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	\$ 37,842,129	\$ -	\$ 6,171,983	\$ 9,273,085	\$ 22,397,061
Bank loans	20,295,764	-	9,808,649	10,487,115	-
Commercial mortgage-backed securities	21,791,026	10,844	1,664,113	884,077	19,231,992
Corporate bonds	193,659,978	4,670,201	81,031,730	70,897,190	37,060,857
Corporate convertible bonds	1,420,269	-	98,550	-	1,321,719
Government agency securities	15,426,463	516,966	12,940,975	1,189,016	779,506
Government bonds	114,345,111	4,385,907	58,989,842	34,380,073	16,589,289
Government mortgage-backed securities	94,247,724	45,935	197,079	3,707,245	90,297,465
Index-linked government funds	1,508,198	-	-	1,508,198	-
Municipal/ provincial bonds	6,547,637	307,378	4,059,362	317,719	1,863,178
Non-government-backed collateralized mortgage obligations	6,208,421	-	662,343	137,803	5,408,275
	<u>\$ 513,292,720</u>	<u>\$ 9,937,231</u>	<u>\$ 175,624,626</u>	<u>\$ 132,781,521</u>	<u>\$ 194,949,342</u>

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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Years Ended December 31, 2017 and 2016

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

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.

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	
	2017	2016
<i>Quality Rating</i>		
Aaa	\$ 154,954,935	\$ 127,930,782
Aa	14,428,275	16,566,496
A	54,846,339	49,183,786
Baa	92,278,349	92,520,970
Ba	46,221,457	50,167,529
B	12,584,345	19,806,403
Not rated	38,625,051	43,240,461
Caa through C	3,081,798	6,029,044
	<hr/>	<hr/>
Total credit risk of U.S. corporate fixed income	417,020,549	405,445,471
U.S. Govt. fixed income securities - explicitly guaranteed	95,169,983	129,541,822
U.S. Govt. agency securities-not rated	1,102,188	469,410
	<hr/>	<hr/>
	\$ 513,292,720	\$ 535,456,703

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

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Notes to Financial Statements

Years Ended December 31, 2017 and 2016

NOTE 4 CASH AND INVESTMENT RISK *(continued)*

Investment Risks *(continued)*

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, 2017 and 2016, cash deposits of \$1,670,530 and \$1,914,773, 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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Years Ended December 31, 2017 and 2016

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:

	Fair Value	
	2017	2016
<i>Currency</i>		
Argentine Peso	\$ 188,558	\$ -
Australian Dollar	10,973,972	11,549,806
Brazilian Real	11,302,358	8,883,073
British Pound Sterling	66,864,387	49,368,589
Canadian Dollar	26,963,324	22,848,558
Chinese Yuan Renminbi	-	364,340
Colombian Peso	4,672,423	2,679,240
Czech Koruna	2,316,617	2,073,423
Danish Krone	8,199,833	3,136,715
Egyptian Pound	102,496	-
Euro Currency Unit	153,451,415	120,461,649
Hong Kong Dollar	83,534,023	52,323,482
Hungarian Forint	1,965,744	1,494,111
Indian Rupee	12,070,610	11,465,440
Indonesian Rupiah	13,622,440	11,227,055
Japanese Yen	109,147,306	89,918,206
Malaysian Ringgit	4,596,619	2,097,909
Mexican Peso	11,113,254	7,108,251
New Israeli Shekel	1,708,394	1,737,511
New Romanian Leu	-	(4,596)
New Taiwan Dollar	32,291,927	20,810,065
New Zealand Dollar	(3,093,813)	1,223,206
Norwegian Krone	6,916,987	3,402,275
Philippine Peso	4,128,072	2,604,894
Polish Zloty	217,813	308,369
Qatari Rial	44,129	59,164
Russian Ruble	(2,448,023)	(698,370)
Singapore Dollar	2,451,282	(87,158)
South African Rand	13,214,950	9,990,898
South Korean Won	27,363,439	19,980,028
Swedish Krona	10,508,565	13,202,433
Swiss Franc	20,960,059	18,609,062
Thai Baht	3,773,013	4,246,312
Turkish Lira	5,188,258	5,080,808
Total investments in foreign currency	\$ 644,310,431	\$ 497,464,748

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

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Years Ended December 31, 2017 and 2016

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, 2017, the Fund had interest rate futures contracts to purchase U.S. Treasury securities with notional costs of \$23,494,315. At December 31, 2017, the Fund also had interest rate futures contracts to (sell) U.S. Treasury securities, Australian Treasury securities, United Kingdom bonds, and Canadian bonds with notional amounts of \$(97,747,016), \$(502,414), \$(2,325,406), and \$(744,844), respectively. 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.

The fair value of futures contracts in the statements of fiduciary net position was zero at December 31, 2017 and 2016, as settlements are by cash daily.

The Fund had net investment earnings of \$105,632 and \$698,656 on futures contracts in 2017 and 2016, respectively. These earnings (losses) are accounted for as net appreciation (depreciation) in fair value of investments.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

(A Component Unit of the City of Chicago)

Notes to Financial Statements

Years Ended December 31, 2017 and 2016

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 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 \$22,509,662 and \$23,510,287 as of December 31, 2017 and 2016, respectively. The notional value of inflation and interest rate swaps was \$3,075,000 and \$8,323,099 as of December 31, 2017 and 2016, respectively. The fair value of swaps outstanding at December 31, 2017 and 2016 was a net liability of \$470,624 and \$254,930, respectively. Investment loss from holdings and sales of interest rate and credit default swaps was \$157,314 and \$592,425 in 2017 and 2016, respectively. These losses are included in net appreciation (depreciation) in the 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, Canadian dollars, Chinese yuan renminbi, Colombian pesos, Denmark krone, Euros, Egypt pound, Hong Kong dollars, Indian rupee, Indonesian rupiah, Israel shekel, Japanese yen, Malaysian ringgit, Mexican pesos, Romanian new leu, New Taiwan dollar, New Zealand dollar, Norwegian krone, Philippine peso, Polish zloty, Russian ruble, Singapore dollars, South African rand, South Korean won, Swedish krona, Swiss francs, Thailand baht, Turkish lira, and U.S. dollars at December 31, 2017 and 2016. Total pending foreign currency forward purchases and (sales) had notional values of \$97,753,406 and \$(98,799,706), respectively, at December 31, 2017, and \$70,653,866 and \$(69,968,004), respectively, at December 31, 2016.

The Fund had a net unrealized (loss) gain on pending foreign currency forward contracts of \$(1,046,300) and \$685,862 at December 31, 2017 and 2016, respectively, which is reflected in the fair value of the investments on the statements of fiduciary net position. Investment loss from holdings and sales of foreign currency forward contracts was \$2,628,562 and \$346,052 in 2017 and 2016, respectively.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

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Notes to Financial Statements

Years Ended December 31, 2017 and 2016

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 2017 and 2016. 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, 2017, the Fund held forward contracts to buy U.S. TIPS (Treasury Inflation Protected Securities) and U.S treasury Strips with fair values of \$26,984,932, and one contract to buy Luxembourg treasury bonds with a fair value of \$505,048. The Fund also held forward contracts to (sell) U.S. TIPS, U.S. Treasury notes and U.S. Treasury Strips with fair values of \$(23,809,793), and one contract to (sell) Luxembourg treasury bonds with a fair value of \$(507,889). At December 31, 2016, the Fund held forward contracts to buy U.S. TIPS 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. The unrealized gain on these contracts was \$40,462 and \$90,195 at December 31, 2017 and 2016, respectively. Investment (loss) income from holdings and sales of interest rate forward contracts was \$(143,903) and \$272,982 in 2017 and 2016, respectively. The investment income are included in net appreciation 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 one of the collective funds, one of the private equity managers, and the cash manager, are included in investment management fees on the statements of changes in fiduciary net position. Investment management fees from all other collective funds, 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, 2017 and 2016

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 US Dollar 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 one day as of December 31, 2017 and 2016. At December 31, 2017 and 2016, cash collateral was reinvested in indemnified repurchase agreements which had an interest sensitivity of 3.48 days and 22.34 days, respectively. The Fund cannot pledge or sell collateral securities received unless the borrower defaults.

Loans outstanding as of December 31, 2017 and 2016 were as follows:

	<u>2017</u>	<u>2016</u>
Fair value of securities loaned	\$ 143,322,338	\$174,015,213
Fair value reinvested of cash collateral from borrowers	146,521,469	177,836,930
Fair value of non-cash collateral from borrowers	16,961,681	-

As of December 31, 2017 and 2016, the Fund had limited credit risk exposure to borrowers because the amounts owed to the borrowers exceeded the amounts owed to the Fund.

NOTE 6 UNFUNDED INVESTMENT COMMITMENTS

The Fund had unfunded commitments of approximately \$198 million and \$116 million at December 31, 2017 and 2016, respectively, in connection with real estate, infrastructure, private equity and collective commingled fund investments.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

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Notes to Financial Statements

Years Ended December 31, 2017 and 2016

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, 2017, 13 retirees were in the Staff Retiree Health Plan and 20 active employees could be eligible at retirement. As of December 31, 2016, 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 2017 and 2016, PABF contributed approximately \$214,586 and \$181,612, respectively, to the Staff Retiree Health Plan for current premiums, inclusive of an implicit subsidy of \$32,126 and \$24,169, for 2017 and 2016, respectively. For 2017 and 2016, members receiving benefits contributed approximately \$96,748 and \$89,702, 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, 2017 and 2016

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 2017 and 2016, 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>2017</u>	<u>2016</u>
Annual required contribution	\$ 476,401	\$ 450,328
Interest on net OPEB obligation	119,778	106,824
Adjustment to annual required contribution	<u>(98,301)</u>	<u>(87,670)</u>
Annual OPEB expense	497,878	469,482
Employer contributions made	<u>(214,586)</u>	<u>(181,612)</u>
Increase in net OPEB obligation	283,292	287,870
Net OPEB obligation at beginning of year	<u>2,661,729</u>	<u>2,373,859</u>
Net OPEB obligation at end of year	<u>\$ 2,945,021</u>	<u>\$ 2,661,729</u>

The annual OPEB cost, the percentage of annual OPEB cost contributed to the Staff Retiree Health Plan, and the net OPEB obligation for 2017 and 2016 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>
12/31/2017	\$ 497,878	43.1%	\$ 2,945,021
12/31/2016	469,482	38.7	2,661,729

Funded Status and Funding Progress

The funded status of PABF's Staff Retiree Health Plan as of December 31, 2017 and 2016, is as follows:

<u>Actuarial Valuation Date</u>	<u>Actuarial Value of Assets (a)</u>	<u>Actuarial Accrued (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>
12/31/17	-	\$6,664,275	\$6,664,275	0.00	1,563,272	426.3%
12/31/16	-	6,221,517	6,221,517	0.00	1,620,867	383.8

POLICEMEN’S ANNUITY AND BENEFIT FUND OF CHICAGO

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Notes to Financial Statements

Years Ended December 31, 2017 and 2016

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 years ended December 31, 2017 and 2016 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, 2017 and 2016, an annual healthcare cost trend rate of 7.5% and 8.0% at December 31, 2017 and 2016, respectively, reduced by increments of 0.5 percentage point per year to an ultimate rate of 5.0% by January 1, 2022, respectively. At December 31, 2017 and 2016, 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>2017</u>	<u>2016</u>
Balances, at December 31	<u>\$ 2,149,735,763</u>	<u>\$ 1,941,006,405</u>

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

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Notes to Financial Statements

Years Ended December 31, 2017 and 2016

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>2017</u>	<u>2016</u>
Balances, at December 31	\$ <u>1,519,507,781</u>	\$ <u>1,500,886,023</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>2017</u>	<u>2016</u>
Balances, at December 31	\$ <u>2,584,081,060</u>	\$ <u>2,484,485,598</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

(A Component Unit of the City of Chicago)

Notes to Financial Statements

Years Ended December 31, 2017 and 2016

NOTE 8 RESERVES *(continued)*

Prior Service Annuity Reserve

	<u>2017</u>	<u>2016</u>
Balances, at December 31	\$ <u>(1,380,076,402)</u>	\$ <u>(1,494,715,851)</u>

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 \$9,989,892,966 and \$9,804,493,844 as of December 31, 2017 and 2016, respectively.

Gift Reserve

	<u>2017</u>	<u>2016</u>
Balances, at December 31	\$ <u>12,945,425</u>	\$ <u>13,116,200</u>

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>2017</u>	<u>2016</u>
Balances, at December 31	\$ <u>(36,229,226)</u>	\$ <u>(32,992,169)</u>

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, 2017 and 2016, the Ordinary Death Benefit Reserve had a deficit.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

(A Component Unit of the City of Chicago)

Notes to Financial Statements

Years Ended December 31, 2017 and 2016

NOTE 8 RESERVES *(continued)*

Automatic Increase Reserve

	<u>2017</u>	<u>2016</u>
Balances, at December 31	\$ <u>(1,728,345,510)</u>	\$ <u>(1,547,214,804)</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, 2017 and 2016, the Automatic Increase Reserve had a deficit.

Supplementary Payment Reserve

	<u>2017</u>	<u>2016</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, 2017 and 2016. 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.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

(A Component Unit of the City of Chicago)

Notes to Financial Statements

Years Ended December 31, 2017 and 2016

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, 2017 and 2016, were as follows:

	<u>2017</u>	<u>2016</u>
Total pension liability	\$ 13,454,462,563	\$ 13,113,091,688
Less: Plan fiduciary net position	<u>3,122,066,293</u>	<u>2,865,018,804</u>
Fund's net pension liability	<u>\$ 10,332,396,270</u>	<u>\$ 10,248,072,884</u>
Plan fiduciary net position as a percentage of total pension liability	23.20%	21.85%

Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of December 31, 2017 and 2016, using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.75%
Salary increases	3.75% per year, plus additional percentage related to service
Investment rate of return	7.25%
Cost of living adjustments	For members hired before January 1, 2011: 3.0% (1.5% for retirees born on or 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%, to begin no earlier than age 60.

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

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

(A Component Unit of the City of Chicago)

Notes to Financial Statements

Years Ended December 31, 2017 and 2016

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. Finally 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, 2017 and 2016, are summarized in the following tables:

December 31, 2017:

<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	21	7.7
Fixed income	22	1.9
Global asset allocation	5	4.4
Private markets	17	7.4
Hedge funds	5	4.0
Real estate	5	4.6
Real assets	<u>4</u>	4.4
Total	<u><u>100%</u></u>	

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>	

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

(A Component Unit of the City of Chicago)

Notes to Financial Statements

Years Ended December 31, 2017 and 2016

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

Single Discount Rate

A Single Discount Rate of 7.00% and 7.07% as of December 31, 2017 and 2016, 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% for 2017 and 2016, and a municipal bond rate of 3.31% and 3.78%, 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 under the statutory funding policy. Based on these assumptions, the pension plan's fiduciary net position and future contributions were sufficient to finance the benefit payments only through the year 2070. As a result, the long-term expected rate of return on pension plan investments was applied to projected benefit payments through the year 2070, and the municipal bond rate was applied to all benefit payments after that date.

Regarding the sensitivity of the net pension liability to changes in the Single Discount Rate, the following presents the plan's net pension liability, calculated using a Single Discount Rate of 7.00% and 7.07% as of December 31, 2017 and 2016, 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, 2017:

1% Decrease 6.00%	Single Discount Rate Assumption 7.00%	1% Increase 8.00%
\$ 11,944,827,526	\$ 10,332,396,270	\$ 8,978,201,794

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

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

(A Component Unit of the City of Chicago)

Notes to Financial Statements

Years Ended December 31, 2017 and 2016

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 non-cancelable agreement. The current lease commenced on July 1, 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 \$259,435 and \$303,035 for the years ended December 31, 2017 and 2016, respectively.

Future minimum rental payments, net of abatement provisions under the office lease at December 31, 2017, are as follows:

<u>Year</u>	<u>Amount</u>
2018	\$ 141,122
2019	340,744
2020	347,559
2021	354,510
2022	361,600
2023 and thereafter	3,816,036

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.

POLICEMEN'S ANNUITY AND BENEFIT FUND OF CHICAGO

(A Component Unit of the City of Chicago)

Notes to Financial Statements

Years Ended December 31, 2017 and 2016

NOTE 13 CONTINGENCIES

In July 2013, a group of plaintiffs purporting to represent retirees in four Chicago public pension funds filed a civil action, *Underwood v. City of Chicago et. al.* (13-CH-17450; 1-17-162356), seeking class certification and an order requiring the City and the defendant pension funds to continue subsidizing retiree healthcare insurance premiums past the June 30, 2013, statutory expiration date. Following litigation filed in both the federal and state courts, the Illinois Appellate Court, on June 29, 2017, issued an order which in part affirmed with Circuit Court's dismissal order and held that the subsidies pursuant to the 1983 and 1985 amendments is a protected benefit under the pension protection clause of the Illinois Constitution. As such, the retirees in the Appellate Court expanded class are entitled to continue to receive the 1983 provided subsidies (as it relates to the police and fire funds) of \$55 per month if non-Medicare-eligible and \$21 per month if Medicare-eligible subsidies. The Appellate Court remanded the case back to the Circuit Court for the purpose of allowing the presiding judge to determine the mechanics of the payments and this matter remains pending for such purpose. Further, the *Underwood* plaintiffs continue to assert a position concerning the funds' obligation to contract for insurance, and the funds continue to defend that assertion citing to both the Appellate Court's decision and legislative enactments following the 1983 and 1985 legislation. The outcome is uncertain and this matter and related obligations are not reflected in the financial statements.

NOTE 14 SUBSEQUENT EVENTS

On May 23, 2018, three plaintiffs filed litigation, *De Jesus et. al., v. Policemen's Annuity & Benefit Fund of the City of Chicago* (18 CH 06195), seeking class action status, in substance alleging the fund did not properly calculate their duty disability benefits by not including duty availability allowance in their computation of salary in calculating their benefit amount. This newly filed matter is pending, the outcome of which is uncertain.

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 4 Years

(Unaudited)

	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
<i>Total pension liability</i>				
Service cost, including pension plan administrative expense	\$ 237,333,255	\$ 220,569,553	\$ 213,584,647	\$ 199,435,084
Interest on the total pension liability	917,720,267	851,098,457	832,972,131	791,693,017
Benefit changes	-	606,249,791	-	-
Difference between expected and actual experience	(299,923,560)	1,801,353	(105,968,891)	-
Assumption changes	238,975,508	112,585,241	-	845,070,287
Benefit payments	(737,873,928)	(696,491,103)	(668,950,080)	(645,688,934)
Refunds	(10,017,655)	(10,704,842)	(7,826,847)	(8,991,636)
Pension plan administrative expense	(4,843,012)	(4,749,762)	(4,508,519)	(4,240,625)
Net change in total pension liability	341,370,875	1,080,358,688	259,302,441	1,177,277,193
Total pension liability – beginning	<u>13,113,091,688</u>	<u>12,032,733,000</u>	<u>11,773,430,559</u>	<u>10,596,153,366</u>
Total pension liability – ending (a)	<u>13,454,462,563</u>	<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	494,483,191	272,427,716	572,836,100	177,417,827
Employee contributions	103,011,250	101,475,864	107,626,311	95,675,538
Pension plan net investment (loss) income	412,190,404	142,699,124	(5,333,795)	181,901,293
Benefit payments	(737,873,928)	(696,491,103)	(668,950,080)	(645,688,934)
Refunds	(10,017,655)	(10,704,842)	(7,826,847)	(8,991,636)
Pension plan administrative expense	(4,843,012)	(4,749,762)	(4,508,519)	(4,240,625)
Other	97,239	1,412,770	3,091,545	740,305
Net change in plan fiduciary net position	257,047,489	(193,930,233)	(3,065,285)	(203,186,232)
Plan fiduciary net position – beginning	<u>2,865,018,804</u>	<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>3,122,066,293</u>	<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>\$10,332,396,270</u>	<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 six 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, 2017 and 2016

(Unaudited)

Beginning of year total pension liability for 2017 used 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.

End of year total pension liability for 2017 uses a Single Discount Rate of 7.00% and the benefit provisions, actuarial assumptions and funding policy in effect as of the December 31, 2017, funding actuarial valuation. The Single Discount Rate of 7.00% was based on a long-term expected rate of return on pension plan investments of 7.25% used in the December 31, 2017, funding actuarial valuation for the years 2017 through 2070 and a long-term municipal bond rate as of December 29, 2017, of 3.31% 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.

The increase in the total pension liability for 2017 due to assumption changes and methods includes the impact of the change in the municipal bond rate from December 29, 2016, to December 29, 2017. Changes in actuarial assumptions and methods led to the change in the Single Discount Rate from 7.07% to 7.00% (based on the long-term expected rate of return on pension plan investments of 7.25% used in the December 31, 2016, and 2017, funding valuations and the long-term municipal bond rate of 3.78% as of December 29, 2016, and 3.31% as of December 31, 2017, respectively.) This change was measured at the end of the year using the benefit provisions in effect as of December 31, 2017.

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 4 Years

(Unaudited)

	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Total pension liability	\$ 13,454,462,563	\$ 13,113,091,688	\$ 12,032,733,000	\$111,773,430,559
Plan fiduciary net position	<u>3,122,066,293</u>	<u>2,865,018,804</u>	<u>3,058,949,037</u>	<u>3,062,014,322</u>
Net pension liability	<u>\$ 10,332,396,270</u>	<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	23.30%	21.85%	25.42%	26.01%
Covered employee payroll	<u>\$ 1,150,406,094</u>	<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	898.15%	915.39%	825.85%	810.87%

The above information is required beginning in 2014. Information for the next six 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)**
12/31/08	\$ 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
12/31/17	910,938,497	494,580,430	416,358,067	1,150,406,094	42.99%	500,000,000	(5,419,570)

* The Fund’s Statutory Funding does not conform to Actuarial Standards of Practice; therefore, for 2015 and after, the 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, 2017

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, 2017 and 2016 actuarial valuations

Salary Increases: Wage inflation rates of 3.75% plus service based increases consistent with bargaining contracts

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 on or 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, 2017 and 2016 actuarial valuations

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, 2017.

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

Actuarial Cost Method: Entry Age Normal

Asset Method: Market value

Discount Rate: 7.00% as of the December 31, 2017 actuarial valuation
7.07% as of the December 31, 2016 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	6.6
12/31/17	16.7

The above information is required beginning in 2014. Information for the next six 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>
12/31/08	\$ -	\$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	16.33
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
12/31/17	-	-	-	0.00	1,150,406,094	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. This matter remains in the Circuit Court to determine the mechanics and specific members eligible for the requisite payments ordered by the Illinois Appellate Court on June 29, 2017.

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>	
12/31/08	\$ 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
12/31/17	-	-	-	-

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>
12/31/08	\$ -	\$ 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
12/31/17	-	6,664,275	6,664,275	0.00	1,563,272	426.3

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>	
12/31/08	\$ 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
12/31/17	476,401	-	214,586	45.0

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, 2017 and 2016

(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	8.0% - 2016 7.5% - 2017, 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, 2017 and 2016

	<u>2017</u>	<u>2016</u>
<i>Administrative expenses</i>		
Actuary services	\$ 91,000	\$ 102,337
Benefits disbursement	211,202	279,203
Equipment service and rent	146,159	190,094
External auditors	97,029	73,400
Fiduciary insurance	150,724	141,367
Legal services	567,610	481,419
Medical consultants	311,430	354,714
Miscellaneous	211,622	264,585
Pension Administration	110,000	-
Occupancy and utilities	265,833	309,459
Personnel salaries and benefits	2,106,548	2,064,125
Postage	11,000	9,650
Supplies	12,042	9,927
Trustee election	52,935	-
Total administrative expenses	<u><u>\$ 4,345,134</u></u>	<u><u>\$ 4,280,280</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, 2017 and 2016

	<u>2017</u>	<u>2016</u>
<i>Payments to consultants</i>		
External auditors	\$ 97,029	\$ 73,400
Medical consultants	311,430	354,714
Legal services	567,610	481,419
Actuary service	91,000	102,337
Investment management fees	9,053,006	8,528,425
Custodial fees	255,135	312,500
Investment consulting and other fees	<u>821,236</u>	<u>507,596</u>
Total consulting costs	<u><u>\$ 11,196,446</u></u>	<u><u>\$ 10,360,391</u></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, 2017 and 2016

	<u>2017</u>	<u>2016</u>
<i>Investment managers</i>		
Acadian Asset Management	\$ 1,005,529	\$ 795,017
Artisan Partners	796,259	809,829
Blueprint Capital	59,375	-
Denali Advisors	280,992	246,354
Earnest Partners	913,913	774,487
Fisher Investments	819,596	671,646
Great Lakes Advisors	330,750	309,332
HGK Asset Management	67,163	-
Holland Capital Management	247,789	334,896
ING Clarion	94,922	94,620
Invesco Capital Management	281,250	375,000
Lazard Asset Management	708,402	553,194
LM Capital Group	209,703	211,668
MacKay Shields LLC	332,243	406,077
Manulife Asset Management	436,027	436,759
Montag & Caldwell	187,163	185,437
Northern Trust Global Investments - Index Funds	7,174	30,235
UBS Global Asset Management	451,194	420,791
Wellington Management	297,243	379,999
Wells Capital Management	290,600	312,018
William Blair & Co.	1,235,719	1,181,066
Total investment manager fees	<u>9,053,006</u>	<u>8,528,425</u>
<i>Investment consultants and other</i>		
Elkins McSherry Inc.	20,000	20,000
Evercore Group	429,385	-
NEPC LLC	371,851	487,596
Total investment consultants and other fees	<u>821,236</u>	<u>507,596</u>
<i>Master custodian</i>		
The Northern Trust Company	<u>255,135</u>	<u>312,500</u>
Total investment fees	<u><u>\$ 10,129,377</u></u>	<u><u>\$ 9,348,521</u></u>

