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, 2018 and 2017
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, 2018 and 2017

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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 the Policemen's Annuity and Benefit Fund of Chicago (the Fund), a component unit of the City of Chicago (City), as of and for the years ended December 31, 2018 and 2017, 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.

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

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

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the Fund as of December 31, 2018 and 2017, and the changes in its fiduciary net position for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

As discussed in Note 7 to the financial statements, as of January 1, 2018, the Fund adopted Governmental Accounting Standards Board Statement No. 75, *Accounting and Financial Reporting for Postemployment Plans Other Than Pension Plans*. Our opinion is not modified with respect to this matter.

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

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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 14, 2019

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, deferred inflow of resources 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 total OPEB liability 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

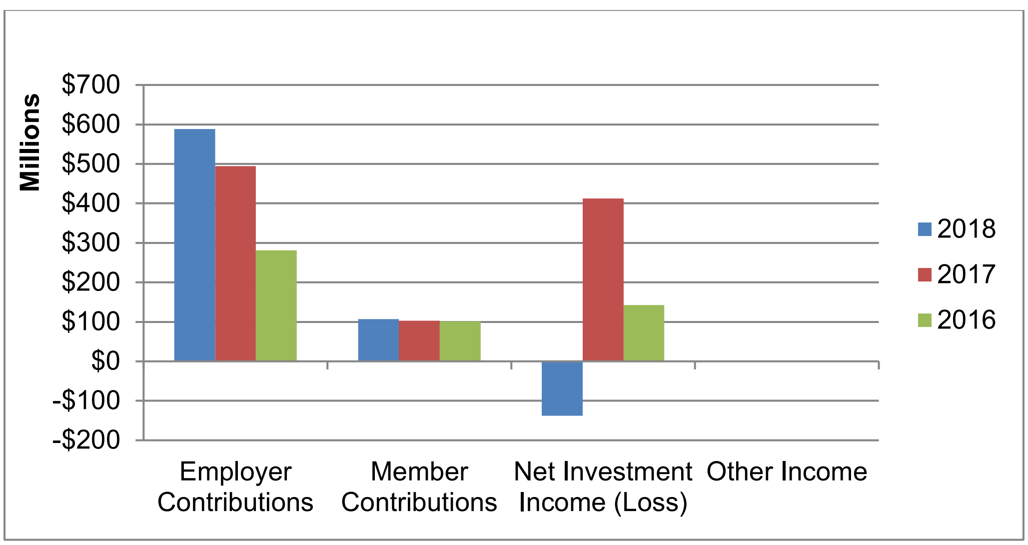
- The fiduciary net position of the Fund decreased by $217 million, or 6.9%, to $2,905.1 million at December 31, 2018. At December 31, 2017, the fiduciary net position of the Fund increased by $257.1 million, or 9.0%, to $3,122.1 million from the December 31, 2016 balance of $2,865.0 million.

Financial Highlights *(continued)*

- Additions to the Fund are received from investment income and contributions from the employer and plan members. These are the primary funding sources for benefit payments. In 2018, these additions totaled $558.8 million versus $1,009.8 million in 2017, which is a 44.7% decrease. The Fund experienced a loss on investments in calendar year 2018 of $138 million, (5.36)% which compares to the positive investment return of $412.2 million, or 17.15% in 2017. Most major asset classes ended 2018 in the red, with US equities suffering their worst December since the 1930s. A wave of risk aversion was felt broadly as safe-haven fixed income rallied with Treasury yields declining in the final weeks of the year. The broad equity markets, as measured by the Morgan Stanley Capital International All Country All World Index (MSCI ACWI) index posted a return of (9.4)%; the credit markets, as measured by the Bloomberg Barclays Global Aggregate index posted a return of (1.2)%. The Fund's portfolio return of (5.36)% for the year is primarily attributed to the total equity portfolio, which returned (11.54)% (net of fees) and made up 51% of the Fund's investments as of December 31, 2018.

- An increase in employer contributions was a factor in the additions to the Fund. Effective May 30, 2016, with the passing of Public Act 099-0506 (PA 99-0506), the reserve was adjusted in accordance with the Illinois Pension Statutes. For financial reporting purposes, the 2018 employer contributions increased $93.5 million, representing both the required statutory increase and the acknowledgment of additional employer receivables. In 2017, the employer contributions significantly increased by $212.9 million, reflecting a full year of contributions required by PA-0506.

ADDITIONS 2016 - 2018

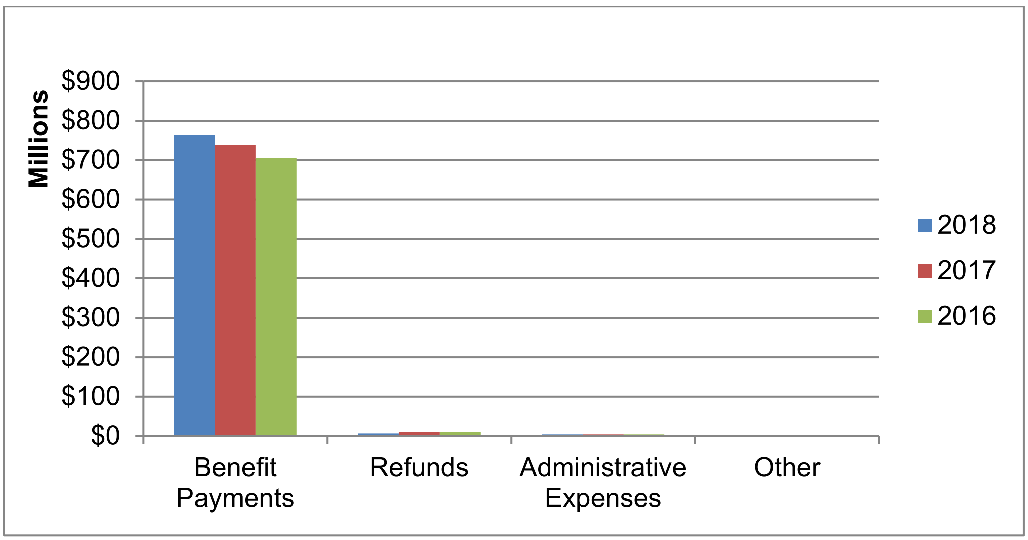


- Deductions to the Fund are incurred primarily for the purpose for which the Policemen's Annuity and Benefit Fund of Chicago was created, to provide benefits to the police officers of the City and their surviving spouses and children. Deductions consist primarily of pension and disability benefits, death benefits, refunds of employee deductions, and administrative expenses. In 2018, these deductions totaled $775.7 million and were $752.7 million in 2017, which is a 3.1% increase. This increase is attributable primarily to the number of retirees and beneficiaries receiving higher benefit payments. The net number of benefit recipients increased in 2018 by three members to 13,631, the highest beneficiary count in Fund history.

Financial Highlights *(continued)*

- 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 provided the statutory 3% automatic increase annually to members born between January 1, 1955, and January 1, 1966. The legislature also 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 2018 to the members impacted; with each legislative provision impacting over 900 retirees and surviving spouses.

DEDUCTIONS 2016 - 2018



- Benefit payments, excluding death benefits and refunds, increased by approximately $26.3 million in 2018 to $762.3 million from $736.0 million in 2017. Death benefits and refunds of employee deductions decreased 25.8% from 2017 to 2018 by approximately $3.1 million, from $11.9 million to $8.8 million, respectively.

- Administrative expenses decreased slightly by approximately $0.3 million, or 6.8%, from $4.4 million in 2017 to $4.1 million in 2018.

- The primary objective of the Fund is to meet its long-term defined pension benefit obligations. The funding ratio of the Fund on a fair value basis, for purposes of statutory funding, experienced a decrease from 23.8% at December 31, 2017 to 22.0% at December 31, 2018. The decrease reflects a slight increase in benefits paid and a lower than expected investment return. The absence of a contract settlement left salary levels unchanged and resulted in a favorable actuarial gain. For the year ended December 31, 2018, the Fund's (5.36)% investment return was significantly lower than the Fund's underlying investment return assumption of 7.25%.

Financial Highlights *(continued)*

- 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 $75,682,255 from $10,332,396,270 as of December 31, 2017, to $10,408,078,525 at December 31, 2018. Changes in the actuarial assumptions and methods led to the change in the Single Discount Rate from 7.00% to 7.18% (based on the long-term expected rate of return on investments of 7.25% used in the December 31, 2017, and December 31, 2018, actuarial valuations and the long-term municipal bond rate of 3.31% as of December 29, 2017, and 3.71% as of December 28, 2018, respectively.

- In compliance with GASB No. 75, the Fund is required to recognize a liability for other postemployment benefits (OPEB), which represents health insurance coverage for active and retired Fund employees. Expenses of $0.2 million and $0.50 million were recognized in 2018 and 2017, respectively, resulting in a total accrued liability of $2.24 million and $2.95 million as of December 31, 2018 and 2017, respectively. The difference between the $2.95 million GASB 45 net OPEB obligation at December 31, 2017 and the $2.29 million GASB 75 total OPEB obligation at January 1, 2018 generated a gain of $0.65 million due to a change in accounting principle.

Fiduciary Net Position

A summary of fiduciary net position is presented below:

Fiduciary Net Position
(In millions)
As of December 31, 2018, 2017, and 2016

	2018	2017	2016	2018–2017 Change $	2018–2017 Change %
Receivables	$ 593.3	$ 497.0	$ 460.2	$ 96.3	19.4 %
Brokers–unsettled trades	135.1	139.7	114.3	(4.6)	(3.3)
Investments, at fair value	2,391.4	2,702.3	2,485.2	(310.9)	(11.5)
Invested securities lending cash collateral	112.8	146.5	177.8	(33.7)	(23.0)
Total assets	3,232.6	3,485.5	3,237.5	(252.9)	(7.3)
Brokers–unsettled trades	204.5	207.3	186.9	(2.8)	(1.4)
Securities lending payable	112.8	146.5	177.8	(33.7)	(23.0)
OPEB obligation	2.2	2.9	2.7	(0.7)	(24.1)
Refunds and accounts payable	7.9	6.7	5.1	1.2	17.9
Total liabilities	327.4	363.4	372.5	(36.0)	(9.9)
Deferred inflow of resources	0.1	-	-	-	-
Net position	$ 2,905.1	$ 3,122.1	$ 2,865.0	$ (216.9)	(6.9)%

Overall, the fiduciary net position decreased $216.9 million, or 6.9%, primarily due to the negative investment performance of the Fund’s portfolio and when netted together with an increase in employer contributions. The Fund’s investment portfolio retracted by (5.36)% in 2018.

As of December 31, 2018 and 2017, 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. Required funding in subsequent payment years is 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.

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, 2018, 2017 and 2016

	2018	2017	2016	2018–2017 Change $	2018–2017 Change %
ADDITIONS					
Member contributions	$ 107.2	$ 103.0	$ 101.5	$ 4.2	4.1 %
Employer contributions	588.0	494.5	281.6	93.5	18.9
Net investment gain (loss) and investment income	(138.7)	411.4	142.1	(550.1)	(133.7)
Securities lending income	0.7	0.8	0.6	(0.1)	(12.5)
Miscellaneous income	1.6	0.1	1.4	1.5	1,500.0
Total additions	558.8	1,009.8	527.2	(451.0)	(44.7)
DEDUCTIONS					
Annuity, disability, and death benefits	764.3	737.9	705.6	26.4	3.6
Refunds of contributions	6.7	10.0	10.7	(3.3)	(33.0)
Administrative expenses	4.1	4.8	4.8	(0.1)	(55.3)
Total deductions	775.7	752.7	721.1	23.0	3.1
Net increase/(decrease)	(216.3)	257.1	(193.9)	(474.0)	(184.4)
Net position restricted for pension benefits					
Beginning of year, as restated	3,121.4	2,865.0	3,058.9	257.1	9.0
Ending of year	$ 2,905.1	$ 3,122.1	$ 2,865.0	$ (216.9)	(6.9)%

The Fund experienced a decrease in fiduciary net position of $216.3 million in 2018. While an overall decrease in the net fiduciary position was experienced, benefit payments continue to increase each year. The Fund experienced an increase in retirements of active members in 2018.

Contractual terms between the employer and the Fraternal Order of Police, Chicago Lodge No. 7, provided that police officers of at least 60 years of age, with over 20 years of service, receive free healthcare in the City sponsored healthcare program until the age of Medicare eligibility. Police officers of at least 55 years of age, indicating their intent to retire prior to October 1, 2018, with over 20 years of service, can participate in the City sponsored healthcare program at a cost of 2% of their retirement annuity until the age of Medicare eligibility. Given these provisions, increases in retirement were experienced in 2018.

Investment Activities

The Board approved certain changes in the asset allocation over the course of 2018. In March 2018, the Board approved increasing allocations to Real Estate +2% and Infrastructure +2% and Total Equities +3%. Additionally, the Board voted to decrease the portfolio's allocations to Private Equity (2)%, Real Assets (4)% and Hedge Funds (1)%.

The Fund continues to prudently implement the strategic allocation approved by the Board of Trustees. In 2018, the Board voted to hire 13 new investment managers: Two (2) domestic equity managers, two (2) long/short equity managers, two (2) infrastructure managers, one (1) opportunistic credit hedge fund, one (1) private equity manager and five (5) real estate managers.

Investment Returns
Years Ended December 31, 2018, 2017 and 2016

	2018	2017	2016
Total fund (%)	(5.36)%	17.15%	6.66%
Equities	(11.54)	29.10	6.16
Fixed income	(0.38)	4.18	4.36
Alternatives	(0.95)	12.62	8.02
Real estate	1.64	5.43	6.01
Private capital	6.15	3.88	7.89
Cash and cash equivalents	1.98	1.00	0.58

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, 2018, 2017 and 2016.

Plan Membership
As of December 31, 2018, 2017 and 2016

				2018–2017	
	2018	2017	2016	Change	%
Retirees and beneficiaries receiving benefits	13,631	13,628	13,394	3	0.0%
Active employees	13,438	12,633	12,177	805	6.4
Terminated (inactive members) employees entitled to benefits or refunds of contributions	721	640	606	81	12.7
Total	27,790	26,901	26,177	889	3.3%

Funding Status

The funding ratio of the Fund on a fair value basis, for purposes of market value funding, experienced a decrease 2017 to 22.0% at December 31, 2018 from 23.8% at December 31. During 2014, the Fund adopted GASB No. 67, which requires 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, 2018 and 2017, were 21.8% and 23.2%, respectively. Discount rates used in the GASB No. 67 valuation were 7.18% and 7.00% as of December 31, 2018 and 2017, 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, 2018 and 2017 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, 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 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.

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 required increases from the employer in years into the future in accordance with current legislature. 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:

Caroline Vullmahn
Comptroller
Policemen's Annuity and Benefit Fund of Chicago
221 North LaSalle Street
Suite 1626
Chicago, Illinois 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, 2018 and 2017

	2018	2017
ASSETS		
Cash	$ 250	$ 250
Receivables		
Employer tax levies, net of allowance for loss of $3,098,266 in 2018 and $37,047,204 in 2017	581,515,035	486,151,716
Member contributions	5,209,350	5,019,464
Interest and dividends	6,555,824	5,822,061
Accounts receivable—due from brokers	135,126,612	139,702,728
	728,406,821	636,695,969
Investments, at fair value		
U.S. common stock and other equity	460,527,370	483,368,980
Collective investment funds, stock	92,658,300	245,941,487
Collective investment funds, international equities	17,782,881	36,222,231
Collective investment funds, fixed income	158,012,181	170,641,311
Collective investment funds, international fixed income	54,103,217	112,135,048
International equity	527,687,517	720,385,794
U.S. bonds and notes	454,917,964	473,953,673
International bonds and notes	38,396,304	39,339,047
Short-term instruments	108,459,004	156,035,625
Infrastructure	92,520,576	26,855,526
Forward contracts and swaps	22,194,095	27,924,125
Hedge fund-of-funds	188,406,726	100,082,750
Real estate	90,782,832	72,809,905
Venture capital and private equity	84,919,513	36,607,996
	2,391,368,480	2,702,303,498
Invested securities lending cash collateral	112,851,289	146,521,469
Total assets	3,232,626,840	3,485,521,186
LIABILITIES		
Refunds and accounts payable	7,898,508	6,734,372
Trade accounts payable—due to brokers	204,454,518	207,254,031
Securities lending cash collateral	112,851,289	146,521,469
OPEB obligation	2,242,684	2,945,021
Total liabilities	327,446,999	363,454,893
Deferred inflow of resources	91,256	-
Total liabilities and deferred inflow of resources	327,538,255	363,454,893
Net position restricted for pension benefits	$ 2,905,088,585	$ 3,122,066,293

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, 2018 and 2017

	2018	2017
ADDITIONS		
Contributions		
Employer	$ 588,034,930	$ 494,483,191
Plan member salary deductions	107,186,492	103,011,250
Total contributions	695,221,422	597,494,441
Investment income		
Net appreciation (depreciation) in the fair value of investments	(183,034,696)	371,090,439
Interest	21,282,711	19,437,993
Dividends	29,667,486	29,272,410
Real estate income	2,973,090	1,749,558
	(129,111,409)	421,550,400
Investment activity expenses		
Investment management fees	(8,802,097)	(9,053,006)
Custodial fees	(390,145)	(255,135)
Investment consulting and other fees	(423,295)	(821,236)
Total investment activity expenses	(9,615,537)	(10,129,377)
Net income (loss) from investing activities	(138,726,946)	411,421,023
From securities lending activities		
Securities lending income	3,134,411	2,150,479
Borrower rebates, net of related fees	(2,282,407)	(1,254,123)
Bank fees	(102,240)	(126,975)
Net income from securities lending activities	749,764	769,381
Total net investment income (loss)	(137,977,182)	412,190,404
Miscellaneous income	1,600,348	97,239
Total additions	558,844,588	1,009,782,084
DEDUCTIONS		
Pension and disability benefits	762,295,768	736,026,328
Death benefits	2,071,600	1,847,600
Refunds of employee deductions	6,737,073	10,017,655
	771,104,441	747,891,583
Administrative expenses	4,064,802	4,843,012
Total deductions	775,169,243	752,734,595
Net Increase (decrease)	(216,324,655)	257,047,489
Net position restricted for pension benefits		
Beginning of year, as restated	3,121,413,240	2,865,018,804
End of year	$ 2,905,088,585	$ 3,122,066,293

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

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Reporting Entity

Accounting principles generally accepted 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 Fund's Statement of Investment Policy and in compliance with the Illinois Compiled Statutes.

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 funds, 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

The Fund is a tax exempt retirement plan as determined by the Internal Revenue Service and as such, 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.

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

Recent Accounting Pronouncements

The following standards were adopted by the Fund during 2018 and 2017:

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 adopted GASB No. 75 for its December 31, 2018, financial statements.

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. 85, *Omnibus*, was issued in March 2017. The primary objective of this Statement is to address practice issues that have been identified during implementation and application of certain GASB Statements. The Fund adopted GASB No. 85 for its December 31, 2018, financial statements. Implementation did not have a significant impact on the financial statements.

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

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, 2020, financial statements.

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 police officers, 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, 2018 and 2017 were $1,205,324,445 and $1,150,406,094, respectively. At December 31, 2018 and 2017, the Fund's membership consisted of the following:

	2018	2017
Active employees	13,438	12,633
Retirees and beneficiaries currently receiving benefits	13,631	13,628
Terminated employees entitled to benefits or a refund of contributions, but not yet receiving them	721	640
	27,790	26,901

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, 1966.

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 automatic 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. 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.

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 2017 and 2018.

NOTE 2 PENSION PLAN *(continued)*

Plan Description and Contribution Information *(continued)*

The total pension liability at December 31, 2018 and 2017, was $13,313,258,366 and $13,454,462,563, respectively. The plan fiduciary net position at December 31, 2018 and 2017 was $2,905,179,841 and $3,122,066,293, respectively. The net pension liability at December 31, 2018 and 2017 was $10,408,078,525 and $10,332,396,270, respectively. The Single Discount Rate of 7.18% required by GASB Statement No. 67 as of December 31, 2018, 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 3.71%. 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%.

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).

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, 2018, or 2017, as the matter remains in the Circuit Court to determine the mechanics and specific members eligible for the requisite payments. Refer to Note 13 for further details.

NOTE 4 CASH AND INVESTMENT RISK

Cash

The bank balance and carrying amount of the Fund's deposits at December 31, 2018, were $189,933 and $(81,970), respectively, and $510,442 and $(127,263) at December 31, 2017, respectively. These balances excluded $250 of petty cash. The bank balance at December 31, 2018 and 2017 is on deposit with the City Treasurer and is insured or collateralized by securities held by the City Treasurer in the Fund's name.

NOTE 4 CASH AND INVESTMENT RISK *(continued)*

Investment Policy

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

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

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

Money-Weighted Rate of Return

For the years ended December 31, 2018 and 2017, the annual money-weighted rate of return on the plan investments, net of investment expense, was (5.7)% and 16.7%, 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, 2018 and 2017:

	2018	2017
Government and agency fixed income	$ 233,564,965	$ 227,353,917
Corporate fixed income	259,749,303	285,938,803
U.S. common collective fixed-income funds	158,012,181	170,641,311
Global common collective fixed-income funds	54,103,217	112,135,048
Global common collective equity funds	12,847,652	13,853,401
U.S. equities	460,527,370	483,368,980
U.S. common collective stock funds	79,810,648	232,088,086
International equity common collective funds	17,782,881	36,222,231
Foreign equities	527,687,517	720,385,794
Pooled short-term investment funds	81,002,791	118,519,186
Infrastructure	92,520,576	26,855,526
Real estate	90,782,832	72,809,905
Venture capital	84,919,513	36,607,996
Forward contracts and swaps	22,194,095	27,924,125
Hedge fund-of-funds	188,406,726	100,082,750
Cash and cash equivalents	27,456,213	37,516,439
Total investments at fair value	$ 2,391,368,480	$ 2,702,303,498

NOTE 4 CASH AND INVESTMENT RISK *(continued)*

Investment Summary *(continued)*

There were no individual investments held by the Fund that represented 5% or more of net position held in trust for pension benefits as of December 31, 2018. The Fund's individual investment Northern Trust Collective Russell 1000 Index Fund – Non Lending, which amounted to $232,088,086 as of December 31, 2017, represented 5% or more of net position held in trust for pension benefits. 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 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.

The Fund's investments were managed by approximately 50 external investment managers during 2018, 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;

NOTE 4 CASH AND INVESTMENT RISK *(continued)*

Fair Value Measurements *(continued)*

Level 2: (continued)

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.

The recurring fair value measurements for the year ended December 31, 2018 are as follows:

		Fair Value Measurements Using		
Investments by fair value level	**Totals**	**Level 1**	**Level 2**	**Level 3**
Equities				
U.S. common stock and other equity	$ 460,527,370	$ 459,786,536	$ 740,834	$ -
Collective investment funds, stock	79,810,648	-	79,810,648	-
International equity	527,687,517	527,637,001	-	50,516
Fixed income				
U.S. bonds and notes	454,917,964	-	454,917,964	-
International bonds and notes	38,396,304	-	38,396,304	-
Cash equivalents and short-term instruments	108,459,004	20,084,603	88,304,401	70,000.00
Forward contracts and swaps	22,194,095	-	22,194,095	-
Real estate	13,684,142	13,684,142	-	-
Subtotal	1,705,677,044	$ 1,021,192,282	$ 684,364,246	$ 120,516
Investments measured at net asset value				
Collective investment funds, stock	12,847,652			
Collective investment funds, international equities	17,782,881			
Collective investment funds, fixed	158,012,181			
Collective investment funds, international fixed	54,103,217			
Infrastructure	92,520,576			
Hedge fund-of-funds	188,406,726			
Real estate	77,098,690			
Venture capital and private equity	84,919,513			
Subtotal	685,691,436			
Total	$ 2,391,368,480			

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
Equities				
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
Fixed income				
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	2,148,195,175	$ 1,243,471,424	$ 904,609,310	$ 114,441
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	554,108,323			
Total	$ 2,702,303,498			

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 classified in Level 3 of the fair value hierarchy is 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.

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, 2018 and 2017:

2018	Fair Value	Unfunded Commitments	Redemption Frequency (if Currently Eligible)	Redemption Notice Period
Collective investment funds, stock	$ 12,847,652	$ -	Daily	5 days
Collective investment funds, international equities	17,782,881	-	Daily	5 days
Collective investment funds, fixed	158,012,181	3,064,058	Daily	5 days
Collective investment funds, international fixed	54,103,217	3,000,000	Daily	5 days
Infrastructure	92,520,576	16,606,619	Illiquid	N/A
Hedge fund-of-funds	188,406,726	-	Quarterly	90 days
Real estate	77,098,690	35,669,088	Illiquid	N/A
Venture capital and private equity	84,919,513	22,418,899	Illiquid	N/A
	$ 685,691,436			

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	-	-
	$ 554,108,323			

Collective investment funds, stock and international equities: There are two funds at December 31, 2018 and 2017, which invest in equities diversified across all sectors.

Collective investment funds, fixed and international fixed: There are seven funds at December 31, 2018 and 2017, which invest in a variety of fixed-income markets through various investments. Two of these funds are not eligible for redemption as of December 31, 2018, and two of these funds were not eligible for redemption as of December 31, 2017.

Infrastructure: There are three funds at December 31, 2018 and 2017, that invest in a variety of infrastructure assets through various investments. These funds are not eligible for redemption.

NOTE 4 CASH AND INVESTMENT RISK *(continued)*

Fair Value Measurements (*continued)*

Hedge fund-of-funds: There are four funds at December 31, 2018, and three funds at December 31, 2017, 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. Two of the funds were not available for redemption as of December 31, 2018.

Real estate, venture capital and private equity: The real estate investments consist of 23 and 17 core, value-add, and opportunistic real estate funds as of December 31, 2018 and 2017, respectively. These funds invest in both real estate equity or real estate debt securities. The private market partnerships consist of two and four limited partnership interests as of December 31, 2018 and 2017, 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 2018 and 2017, 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.

NOTE 4 CASH AND INVESTMENT RISK *(continued)*

Investment Risks *(continued)*

At December 31, 2018, the Fund had the following investments and maturities related to certain fixed-income securities (bonds and notes):

		Investment Maturities			
Investment Type	Fair Value	Less than 1 Year	1 to 6 Years	7 to 10 Years	More than 10 Years
Asset-backed securities	$ 35,204,068	$ -	$ 8,202,322	$ 4,448,185	$ 22,553,561
Bank loans	20,972,644	-	13,701,061	7,271,583	-
Commercial mortgage-backed securities	18,718,629	421,138	-	638,881	17,658,610
Corporate bonds	172,826,636	8,349,359	79,444,532	58,604,244	26,428,501
Corporate convertible bonds	2,143,439	-	-	68,639.00	2,074,800
Government agency securities	11,225,076	1,576,107	8,525,797	744,974	378,198
Government bonds	101,708,419	4,018,181	57,546,398	22,178,146	17,965,694
Government mortgage-backed securities	117,658,857	-	29,110	4,241,120	113,388,627
Index-linked government funds	2,520,778	-	-	2,520,778	-
Municipal/provincial bonds	3,662,933	80,299	2,530,248	-	1,052,386
Non-government-backed	6,672,789	-	442,875	1,733,727	4,496,187
collateralized mortgage obligations	-	-	-	-	-
	$ 493,314,268	$ 14,445,084	$ 170,422,343	$ 102,450,277	$ 205,996,564

At December 31, 2017, the Fund had the following investments and maturities related to certain fixed-income securities (bonds and notes):

		Investment Maturities			
Investment Type	Fair Value	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
	$ 513,292,720	$ 9,937,231	$ 175,624,626	$ 132,781,521	$ 194,949,342

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	
	2018	**2017**
Quality Rating		
Aaa	$ 126,217,776	$ 154,954,935
Aa	13,092,171	14,428,275
A	45,113,168	54,846,339
Baa	93,601,400	92,278,349
Ba	42,397,425	46,221,457
B	13,679,998	12,584,345
Not rated	39,802,336	38,625,051
Caa through C	1,717,912	3,081,798
Total credit risk of U.S. corporate fixed income	375,622,186	417,020,549
U.S. Govt. fixed-income securities - explicitly guaranteed	117,577,766	95,169,983
U.S. Govt. agency securities-not rated	114,316	1,102,188
	$ 493,314,268	$ 513,292,720

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, 2018 and 2017, cash deposits of $1,768,818 and $1,670,530, respectively, were exposed to custodial credit risk as uninsured and uncollateralized. The Fund does not have a formal policy regarding custodial credit risk.

NOTE 4 CASH AND INVESTMENT RISK *(continued)*

Investment Risks *(continued)*

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

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	
	2018	**2017**
Currency		
Argentine Peso	$ 65,322	$ 188,558
Australian Dollar	13,198,563	10,973,972
Brazilian Real	18,727,267	11,302,358
British Pound Sterling	51,109,664	66,864,387
Canadian Dollar	19,564,274	26,963,324
Chinese Yuan Renminbi	(286,100)	-
Colombian Peso	2,047,567	4,672,423
Czech Koruna	1,529,671	2,316,617
Danish Krone	6,601,964	8,199,833
Egyptian Pound	150,452	102,496
Euro Currency Unit	131,214,727	153,451,415
Hong Kong Dollar	52,483,201	83,534,023
Hungarian Forint	1,270,612	1,965,744
Indian Rupee	9,302,013	12,070,610
Indonesian Rupiah	10,831,062	13,622,440
Japanese Yen	70,377,704	109,147,306
Malaysian Ringgit	3,355,087	4,596,619
Mexican Peso	3,929,986	11,113,254
New Israeli Shekel	4,281,040	1,708,394
New Taiwan Dollar	20,776,470	32,291,927
New Zealand Dollar	(411,564)	(3,093,813)
Norwegian Krone	4,830,685	6,916,987
Philippine Peso	2,958,201	4,128,072
Polish Zloty	44,405	217,813
Qatari Riyal	91,643	44,129
Russian Ruble	(1,532,788)	(2,448,023)
Singapore Dollar	4,027,833	2,451,282
South African Rand	8,129,877	13,214,950
South Korean Won	15,273,984	27,363,439
Swedish Krona	10,857,577	10,508,565
Swiss Franc	19,425,395	20,960,059
Thai Baht	4,096,455	3,773,013
Turkish Lira	40,247	5,188,258
United Arab Emirates dirham	25,650	-
Total investments in foreign currency	$ 488,388,146	$ 644,310,431

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, 2018, the Fund had interest rate futures contracts to purchase U.S. Treasury bonds with notional costs of $10,553,542. At December 31, 2018, the Fund also had interest rate futures contracts to (sell) United States Treasury securities and Euro dollars, and German bonds with notional amounts of $(48,540,428), and $(7,351,670), respectively. 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.

The fair value of futures contracts in the statements of fiduciary net position was zero at December 31, 2018 and 2017, as settlements are by cash daily.

The Fund had net investment earnings of $216,072 and $105,632 on futures contracts in 2018 and 2017, respectively. These earnings (losses) are accounted for as net appreciation (depreciation) in fair value of investments.

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 $8,225,381 and $22,509,662 as of December 31, 2018 and 2017, respectively. The notional value of inflation and interest rate swaps was $6,385,000 and $3,075,000 as of December 31, 2018 and 2017, respectively. The fair value of swaps outstanding at December 31, 2018 and 2017 was a net liability of $266,634 and $470,624, respectively. Investment loss from holdings and sales of interest rate and credit default swaps was $33,415 and $157,314 in 2018 and 2017, 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 Argentine peso, Australian dollar, Brazilian real, British pound sterling, Canadian dollar, Chinese yuan renminbi, Colombian peso, Czech koruna, Danish krone, Egyptian pound, Euro currency unit, Hong Kong dollar, Hungarian forint, Indian rupee, Indonesian rupiah, Japanese yen, Malaysian ringgit, Mexican peso, New Israeli shekel, New Taiwan dollar, New Zealand dollar, Norwegian krone, Philippine peso, Polish zloty, Qatari riyal, Russian ruble, Singapore dollar, South African rand, South Korean won, Swedish krona, Swiss franc, Thai baht, Turkish lira, United Arab Emirates dirham, and United States dollar at December 31, 2018 and 2017. Total pending foreign currency forward purchases and (sales) had notional values of $103,155,485 and $(102,605,357), respectively, at December 31, 2018, and $97,753,406 and $(98,799,706), respectively, at December 31, 2017.

The Fund had a net unrealized gain (loss) on pending foreign currency forward contracts of $550,128 and $(1,046,300) at December 31, 2018 and 2017, 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 $1,162,280 and $2,628,562 in 2018 and 2017, respectively.

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 2018 and 2017. 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, 2018, the Fund held forward contracts to buy U.S. TIPS (United States Treasury Inflation-Protected Security), UST (United States Treasury debt), and USTN (United States Treasury Note) with fair values of $18,548,853, Luxembourg treasury bonds (BTPS) with a fair value of $2,027,637, and United Kingdom treasury securities (GILT) with a fair value of $1,466,334. The Fund also held forward contracts to (sell) U.S. TIPS and USTN with fair values of $(13,797,706), Luxembourg BTPS with a fair value of $(2,073,788), and one contract to sell United Kingdom T-bill (UKT) with a fair value of $(1,417,860). At December 31, 2017, the Fund held forward contracts to buy U.S. TIPS with fair values of $26,984,932, and the Fund also held forward contracts to sell U.S. TIPS and U.S. Treasury Strips with fair values of $(23,809,793) and Luxembourg BTPS with fair values of $(507,889). The unrealized gain on these contracts was $2,513 and $40,462 at December 31, 2018 and 2017, respectively. Investment (loss) income from holdings and sales of interest rate forward contracts was $(22,602) and $(143,903) in 2018 and 2017, respectively. The investment income is 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.

NOTE 5 SECURITIES LENDING PROGRAM

State statutes and the Fund's Statement of Investment Policy permit the Fund to lend certain of its liquid 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 U.S. 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.

Any of the loans of the Fund's securities can be terminated on demand by either the Fund or the borrower. The average term of the Fund's loans was approximately one day as of December 31, 2018 and 2017. At December 31, 2018 and 2017, cash collateral was reinvested in indemnified repurchase agreements which had an interest sensitivity of one (1) day and 3.48 days, respectively. The Fund cannot pledge or sell collateral securities received unless the borrower defaults.

Loans outstanding as of December 31, 2018 and 2017 were as follows:

	2018	2017
Fair value of securities loaned	$ 115,481,089	$ 143,322,338
Fair value reinvested of cash collateral from borrowers	112,851,289	146,521,469
Fair value of non-cash collateral from borrowers	5,267,203	16,961,681

As of December 31, 2018 and 2017, 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 $81 million and $198 million at December 31, 2018 and 2017, respectively, in connection with real estate, infrastructure, private equity and collective commingled fund investments.

NOTE 7 POSTEMPLOYMENT BENEFITS OF THE FUND—STAFF RETIREE HEALTHCARE PLAN

GASB 75 Implementation

On January 1, 2018, PABF adopted GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions* (GASB 75) related to its other postemployment benefits (OPEBs). GASB 75 replaces the requirements of GASB Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*, as amended. The scope of this Statement addresses accounting and financial reporting for OPEBs that are provided to the employees of state and local governmental employers. This Statement establishes standards for recognizing and measuring liabilities, deferred outflows of resources, deferred inflows of resources, and expense/expenditures. For defined benefits OPEBs, this Statement identifies the methods and assumptions that are required to be used to project benefit payments, discount projected benefit payments to their actuarial present value, and attribute that present value to periods of employee service. Note disclosure and required supplementary information requirements about defined benefit OPEBs also are addressed in this Statement.

Because the restatement of the prior-year financial statement amounts was not practical, PABF is reporting the cumulative effect of adopting GASB 75, which includes the restatement of beginning net position at January 1, 2018. The table that follows presents the net impact of the cumulative effect of adopting GASB 75 on total net position.

Statement of Changes in Fiduciary Net Position	
Total net position, beginning of period, January 1, 2018	$ 3,122,066,293
Cumulative effect of adopting GASB 75	653,053
Total net position, beginning of period January 1, 2018 (restated)	$ 3,121,413,240

NOTE 7 POSTEMPLOYMENT BENEFITS OF THE FUND—STAFF RETIREE HEALTHCARE PLAN *(continued)*

Plan Description

PABF, as an employer, administers a single-employer defined benefit postemployment healthcare plan (Staff Retiree Healthcare Plan). The Staff Retiree Health Plan provides 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, 2018, 10 retirees were in the Staff Retiree Healthcare Plan and 20 active employees could be eligible at retirement. As of December 31, 2017, 13 retirees were in the Staff Retiree Healthcare Plan and 20 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. Accordingly, the Plan does not accumulate assets in a trust for OPEB. For 2018 and 2017, PABF contributed approximately $162,785 and $214,586, respectively, to the Staff Retiree Healthcare Plan for current premiums, inclusive of an implicit subsidy of $30,176 and $32,126, for 2018 and 2017, respectively. For 2018 and 2017, members receiving benefits contributed approximately $95,811 and $96,748, respectively, to the Staff Retiree Healthcare Plan for current premiums.

GASB 75 Valuation

As of December 31, 2018, the Fund's total OPEB liability was $2,291,968. Total OPEB liability as of December 31, 2018, was measured based on the requirements of GASB Statement No. 75, using census, plan provisions, methods and assumptions as of December 31, 2017.

The following methods and assumptions were used in the OPEB valuation:

Actuarial valuation date	December 31, 2017
Measurement date	December 31, 2018
Fiscal year end date	December 31, 2018

NOTE 7 POSTEMPLOYMENT BENEFITS OF THE FUND—STAFF RETIREE HEALTHCARE PLAN *(continued)*

GASB 75 Valuation *(continued)*

Methods and actuarial assumptions used to measure total OPEB liability:

Actuarial cost method	Entry age normal
GASB 75 discount rate beginning of year	3.31% per year
GASB 75 discount rate end of year	3.71% per year
Wage inflation	3.00% per year
Retirement age	Experience-based table of rates that are specific to the type of eligibility condition
Post-retirement mortality	The mortality rates are from the RP-2014 Blue Collar Mortality Table with two-dimensional, fully generational improvements using the MP-2017 Mortality Improvement Scale (projected from 2006)
Healthcare trend rates	Pre-Medicare trend rate of 5.61%, and Post-Medicare trend rate of 1.6% for plan year beginning on January 1, 2019. Trend rates for plan years beginning on and after January 1, 2020, based on 8.00% for Pre-Medicare and 9.00% for Post-Medicare per year graded down in 0.50% increments to an ultimate trend rate of 4.50% per year. Excess trend rate of 0.19% over the base healthcare trend rate beginning in 2022 applied to per capita claim cost to account for the Excise Tax under the Healthcare Reform Act. Dental trend rate of 0.81% for plan year beginning on January 1, 2019, and 4.50% thereafter.

NOTE 7 POSTEMPLOYMENT BENEFITS OF THE FUND—STAFF RETIREE HEALTHCARE PLAN *(continued)*

Total OPEB Liability and Sensitivity to Changes in the Discount and Healthcare Cost Trend Rates

Total OPEB liability	
1. Service cost	$ 93,951
2. Interest on the total OPEB liability	75,485
3. Changes of assumptions	(101,657)
4. Benefit payments	(117,063)
5. Net change in total OPEB liability	(49,284)
6. Total OPEB liability – beginning	2,291,968
7. Total OPEB liability – ending	$ 2,242,684
Covered-employee payroll	$ 1,630,338
Total OPEB liability as a percentage of Covered-employee payroll	137.56%

Discount Rate

The following presents the Fund's total OPEB liability, calculated using a discount rate of 3.71%, as well as what the Fund's total OPEB liability would be if it were calculated using a discount rate that is 1% lower or 1% higher:

Net OPEB Liability for Year Ended	1% Decrease (2.71%)	Current Assumption (3.71%)	1% Increase (4.71%)
December 31, 2018	$ 2,511,527	$ 2,242,684	$ 2,017,864

The following presents the Funds' OPEB liability, calculated using the assumed trend rates as well as what the Fund's total OPEB liability would be if it were calculated using a trend rate that is 1% lower or 1% higher (except for the first increase at January 1, 2019, which is based on actual plan experience):

Net OPEB Liability for Year Ended	1% Decrease	Current Healthcare Cost Trend Rate Assumption	1% Increase
December 31, 2018	$ 2,128,478	$ 2,242,684	$ 2,389,084

NOTE 7 POSTEMPLOYMENT BENEFITS OF THE FUND—STAFF RETIREE HEALTHCARE PLAN *(continued)*

Statement of OPEB Expense

Fiscal Year Ended December 31, 2018

Expense	
1. Service cost	$ 93,951
2. Interest on the total OPEB liability	75,485
3. OPEB plan administrative expense	3,750
4. Recognition of outflow (inflow) of resources due to assumption changes	(10,401)
5. Total OPEB expense	$ 162,785
Reconciliation of total OPEB liability	
1. Net OPEB obligation, beginning of year	$ 2,291,968
2. OPEB expense	162,785
3. Employer contributions	(120,813)
4. Change in deferred outflow/(inflow) due to assumption change	(91,256)
5. Net OPEB obligation, end of year	$ 2,242,684
Total deferred Inflows of Resources	
As of December 31, 2018, the deferred inflow of resources related to OPEB was	$ 91,256

The following table presents the component of total deferred inflow of resources related to OPEB.

Deferred Inflows of Resources	**December 31, 2018**
Difference between expected and actual experience	$ -
Assumption changes	91,256
Total deferred inflows of resources	$ 91,256

NOTE 7 POSTEMPLOYMENT BENEFITS OF THE FUND—STAFF RETIREE HEALTHCARE PLAN *(continued)*

Amounts reported as deferred inflows of resources related to OPEB will be recognized as OPEB expense over 9.7735 years in the administrative expenses line item on the statement of changes in fiduciary net position as follows:

Year Ending December 31	
2019	$ (10,401)
2020	(10,401)
2021	(10,401)
2022	(10,401)
2023	(10,401)
2024	(10,401)
2025	(10,401)
2026	(10,401)
2027	(8,048)
Total	$ (91,256)

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

	2018	2017
Balances, at December 31	$ 1,877,390,448	$ 2,149,735,763

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

	2018	2017
Balances, at December 31	$ 1,586,966,550	$ 1,519,507,781

NOTE 8 RESERVES *(continued)*

Salary Deduction Reserve *(continued)*

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

	2018	2017
Balances, at December 31	$ 2,657,102,400	$ 2,584,081,060

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.

Prior Service Annuity Reserve

	2018	2017
Balances, at December 31	$ (1,267,227,915)	$ (1,380,076,402)

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 $10,069,521,907 and $9,989,892,966 as of December 31, 2018 and 2017, respectively.

Gift Reserve

	2018	2017
Balances, at December 31	$ 13,686,709	$ 12,945,425

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.

NOTE 8 RESERVES *(continued)*

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

	2018	2017
Balances, at December 31	$ (39,856,412)	$ (36,229,226)

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, 2018 and 2017, the Ordinary Death Benefit Reserve had a deficit.

Automatic Increase Reserve

	2018	2017
Balances, at December 31	$ (1,923,329,341)	$ (1,728,345,510)

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 increased annuities are charged to this reserve. At December 31, 2018 and 2017, the Automatic Increase Reserve had a deficit.

Supplementary Payment Reserve

	2018	2017
Balances, at December 31	$ 447,402	$ 447,402

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.

NOTE 8 RESERVES *(continued)*

Additional Reserves

The following reserves have a $0 balance at December 31, 2018 and 2017. 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.

Expense Reserve

Amounts contributed toward the cost of administration are credited to the Expense Reserve. Expenses of administration are also charged to this reserve.

NOTE 9 NET PENSION LIABILITY OF THE FUND

The components of the net pension liability at December 31, 2018 and 2017, were as follows:

	2018	2017
Total pension liability	$ 13,313,258,366	$ 13,454,462,563
Less: Plan fiduciary net position	2,905,179,841	3,122,066,293
Fund's net pension liability	$ 10,408,078,525	$ 10,332,396,270
Plan fiduciary net position as a percentage of total pension liability	21.82%	23.20%

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

Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of December 31, 2018 and 2017, 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.

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, the arithmetic portfolio expected return is converted into a geometric expected return using assumed asset class standard deviations and correlations. The pension plan's target allocation as of December 31, 2018 and 2017, are summarized in the following tables:

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

Actuarial Assumptions *(continued)*

December 31, 2018:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
U.S. equity	21%	6.0%
Non-U.S. equity	21	7.4
Fixed income	22	2.2
Global asset allocation	5	4.4
Private markets	17	6.7
Hedge funds	7	4.2
Real estate	7	4.1
Real assets	0	0.0
Total	100%	

December 31, 2017:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
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	4	4.4
Total	100%	

Single Discount Rate

A Single Discount Rate of 7.18% and 7.00% as of December 31, 2018 and 2017, 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 2018 and 2017, and a municipal bond rate of 3.71% and 3.31%, 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 2079. As a result, the long-term expected rate of return on pension plan investments was applied to projected benefit payments through the year 2079, and the municipal bond rate was applied to all benefit payments after that date.

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

Single Discount Rate *(continued)*

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 7.18% and 7.00% as of December 31, 2018 and 2017, 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, 2018:

1% Decrease 6.18%	Single Discount Rate Assumption 7.18%	1% Increase 8.18%
$ 11,955,692,258	$ 10,408,078,525	$ 9,104,012,404

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

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. Accumulated balances within deferred compensation accounts are 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 are deposited 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 $324,612 and $259,435 for the years ended December 31, 2018 and 2017, respectively.

Future minimum rental payments, net of abatement provisions under the office lease at December 31, 2018, are as follows:

Year	Amount
2019	$ 340,744
2020	347,559
2021	354,510
2022	361,600
2023	368,832
2024 and thereafter (total)	3,447,204

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.

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 (related 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 specific members eligible for the requisite payments. This matter remains pending for such purpose and the amount of any related obligation has not been determined yet. Therefore, no related obligations have been recorded or disclosed in the financial statements.

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 matter is pending and the outcome is uncertain.

NOTE 14 ACTUARIAL EXPERIENCE STUDY

At its regularly scheduled meeting on May 31, 2019, The Retirement Board of the Policemen's Annuity and Benefit Fund of Chicago, authorized its independent consulting actuarial firm, Gabriel Roeder Smith, to perform the experience study of the actuarial assumptions for the five-year period January 1, 2014 through December 31, 2018. The primary purpose of the study is to determine the continued appropriateness of the current actuarial assumptions by comparing actual experience to expected experience. The study will be completed in the Summer of 2019.

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 5 Years
(Unaudited)

	2018	2017	2016	2015	2014
Total pension liability					
Service cost, including pension plan administrative expense	$ 242,998,341	$ 237,333,255	$ 220,569,553	$ 213,584,647	$ 199,435,084
Interest on the total pension liability	931,731,201	917,720,267	851,098,457	832,972,131	791,693,017
Benefit changes	-	-	606,249,791	-	-
Difference between expected and actual experience	(281,150,986)	(299,923,560)	1,801,353	(105,968,891)	-
Assumption changes	(259,051,713)	238,975,508	112,585,241	-	845,070,287
Benefit payments	(764,367,368)	(737,873,928)	(696,491,103)	(668,950,080)	(645,688,934)
Refunds	(6,737,073)	(10,017,655)	(10,704,842)	(7,826,847)	(8,991,636)
Pension plan administrative expense	(4,626,599)	(4,843,012)	(4,749,762)	(4,508,519)	(4,240,625)
Net change in total pension liability	(141,204,197)	341,370,875	1,080,358,688	259,302,441	1,177,277,193
Total pension liability – beginning	13,454,462,563	13,113,091,688	12,032,733,000	11,773,430,559	10,596,153,366
Total pension liability – ending (a)	13,313,258,366	13,454,462,563	13,113,091,688	12,032,733,000	11,773,430,559
Plan fiduciary net position					
Employer contributions	588,034,930	494,483,191	272,427,716	572,836,100	177,417,827
Employee contributions	107,186,492	103,011,250	101,475,864	107,626,311	95,675,538
Pension plan net investment (loss) income	(137,977,182)	412,190,404	142,699,124	(5,333,795)	181,901,293
Benefit payments	(764,367,368	(737,873,928)	(696,491,103)	(668,950,080)	(645,688,934)
Refunds	(6,737,073)	(10,017,655)	(10,704,842)	(7,826,847)	(8,991,636)
Pension plan administrative expense	(4,626,599)	(4,843,012)	(4,749,762)	(4,508,519)	(4,240,625)
Other	1,600,348	97,239	1,412,770	3,091,545	740,305
Net change in plan fiduciary net position	(216,886,452)	257,047,489	(193,930,233)	(3,065,285)	(203,186,232)
Plan fiduciary net position – beginning	3,122,066,293	2,865,018,804	3,058,949,037	3,062,014,322	3,265,200,554
Plan fiduciary net position – ending (b)	2,905,179,841	3,122,066,293	2,865,018,804	3,058,949,037	3,062,014,322
Net pension liability – ending (a)-(b)	$ 10,408,078,525	$ 10,332,396,270	$ 10,248,072,884	$ 8,973,783,963	$ 8,711,416,237

The above information was required beginning in 2014. Information for the next five 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, 2018 and 2017
(Unaudited)

Beginning of year total pension liability for 2018 used 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.

End of year total pension liability for 2018 uses a Single Discount Rate of 7.18% and the benefit provisions, actuarial assumptions and funding policy in effect as of the December 31, 2018, funding actuarial valuation. The Single Discount Rate of 7.18% was based on a long-term expected rate of return on pension plan investments of 7.25% used in the December 31, 2018, funding actuarial valuation for the years 2018 through 2079 and a long-term municipal bond rate as of December 28, 2018, of 3.71% for subsequent years.

The increase in total pension liability for 2017 due to benefit changes is a result of the change in plan provisions pursuant to P.A. 99-0905.

The decrease in the total pension liability for 2018 due to assumption changes and methods includes the impact of the change in the municipal bond rate from December 29, 2017, to December 28, 2018. Changes in actuarial assumptions and methods led to the change in the Single Discount Rate from 7.00% to 7.18% (based on the long-term expected rate of return on pension plan investments of 7.25% used in the December 31, 2018 and 2017, funding valuations and the long-term municipal bond rate of 3.71% and 3.31% as of December 31, 2018 and 2017, respectively.) This change was measured at the end of the year using the benefit provisions in effect as of December 31, 2018.

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.

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 5 Years
(Unaudited)

	2018	2017	2016	2015	2014
Total pension liability	$ 13,313,258,366	$ 13,454,462,563	$ 13,113,091,688	$ 12,032,733,000	$111,773,430,559
Plan fiduciary net position	2,905,179,841	3,122,066,293	2,865,018,804	3,058,949,037	3,062,014,322
Net pension liability	$ 10,408,078,525	$ 10,332,396,270	$ 10,248,072,884	$ 8,973,783,963	$ 8,711,416,237
Plan fiduciary net position as a percentage of total pension liability	21.82%	23.20%	21.85%	25.42%	26.01%
Covered employee payroll	$ 1,205,324,445	$ 1,150,406,094	$ 1,119,526,987	$ 1,086,607,979	$ 1,074,333,318
Net pension liability as a percentage of covered employee payroll	863.51%	898.15%	915.39%	825.85%	810.87%

The above information is required beginning in 2014. Information for the next five 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)**
12/31/09	$ 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)
12/31/18	924,653,899	589,635,278	335,018,621	1,205,324,445	48.92%	557,000,000	(32,635,278)

* 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.

Valuation Date:	December 31, 2018

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, 2018 and 2017 actuarial valuations
Salary Increases:	Salary increase rates based on wage inflation rate 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, 2018 and 2017 actuarial valuations

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, 2018.

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

Actuarial Cost Method:	Entry Age Normal
Asset Method:	Market value
Discount Rate:	7.18% as of the December 31, 2018 actuarial valuation 7.00% as of the December 31, 2017 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)

Year Ended	Annual Money-Weighted Rate of Return, Net of Investment Expense
12/31/14	6.24 %
12/31/15	(0.41)
12/31/16	6.6
12/31/17	16.7
12/31/18	(5.7)

The above information is required beginning in 2014. Information for the next five 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 Changes in Total OPEB Liability – Staff Retiree Healthcare Plan
For the Years Ended December 31, 2018 and 2017
(Unaudited)

Fiscal year ended December 31, 2018

Total OPEB liability	
Service cost	$ 93,951
Interest on the total OPEB liability	75,485
Changes of assumptions	(101,657)
Benefit payments	(117,063)
Net change in total OPEB liability	$ (49,285)
Total Plan Asset	**$ -**
Total OPEB liability - beginning	$ 2,291,968
Total OPEB liability - ending	$ 2,242,684
Covered-employee payroll	$ 1,630,338
Total OPEB liability as a percentage of covered-employee payroll	137.56%

The above information is required beginning in 2018. Information for the next nine years will be presented in future years.

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, 2018 and 2017

	2018	2017
Administrative expenses		
Actuary services	$ 88,500	$ 91,000
Benefits disbursement	337,621	211,202
Equipment service and rent	104,084	146,159
External auditors	36,707	97,029
Fiduciary insurance	168,766	150,724
Legal services	418,541	567,610
Medical consultants	288,641	311,430
Miscellaneous	206,675	211,622
Pension administration	147,000	110,000
Occupancy and utilities	331,253	265,833
Personnel salaries and benefits	1,827,761	2,604,426
Postage	4,942	11,000
Supplies	10,043	12,042
Trustee election	94,268	52,935
Total administrative expenses	$ 4,064,802	$ 4,843,012

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, 2018 and 2017

	2018	2017
Payments to consultants		
External auditors	$ 36,707	$ 97,029
Medical consultants	288,641	311,430
Legal services	418,541	567,610
Actuary service	88,500	91,000
Investment management fees	8,802,097	9,053,006
Custodial fees	390,145	255,135
Investment consulting and other fees	423,295	821,236
Total consulting costs	$ 10,447,926	$ 11,196,446

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, 2018 and 2017

	2018	2017
Investment managers		
Acadian Asset Management	$ 1,000,806	$ 1,005,529
Artisan Partners	797,244	796,259
Blueprint Capital	275,385	59,375
Chicago Equity Partners	132,258	-
Denali Advisors	279,366	280,992
Earnest Partners	531,614	913,913
Fisher Investments	780,474	819,596
Great Lakes Advisors	229,313	330,750
HGK Asset Management	116,069	67,163
Holland Capital Management	-	247,789
ING Clarion	94,716	94,922
Invesco Capital Management	-	281,250
Lazard Asset Management	618,311	708,402
LM Capital Group	202,729	209,703
MacKay Shields LLC	327,673	332,243
Manulife Asset Management	531,293	436,027
Montag & Caldwell	188,136	187,163
Northern Trust Global Investments - Index Funds	44,270	7,174
Pluscios Management, LLC	160,189	-
UBS Global Asset Management	488,913	451,194
Ullico Infrastructure Fund	162,237	-
Wellington Management	288,667	297,243
Wells Capital Management	246,941	290,600
William Blair & Co.	1,305,493	1,235,719
Total investment manager fees	8,802,097	9,053,006
Investment consultants and other		
Elkins McSherry Inc.	20,000	20,000
Evercore Group	-	429,385
NEPC LLC	403,295	371,851
Total investment consultants and other fees	423,295	821,236
Master custodian		
The Northern Trust Company	390,145	255,135
Total investment fees	$ 9,615,537	$ 10,129,377