

WASHINGTON SUBURBAN SANITARY COMMISSION EMPLOYEES' RETIREMENT PLAN

FINANCIAL STATEMENTS AND SUPPLEMENTAL SCHEDULES WITH INDEPENDENT AUDITORS' REPORT

DECEMBER 31, 2019 AND 2018

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INDEPENDENT AUDITORS' REPORT

The Commissioners and Board of Trustees Washington Suburban Sanitary Commission Employees' Retirement Plan Laurel, Maryland

Report on the Financial Statements

We have audited the accompanying financial statements of the Washington Suburban Sanitary Commission Employees' Retirement Plan (the Plan), as of and for the years ended December 31, 2019 and 2018, and the related notes to the financial statements, which collectively comprise the Plan's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

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

Auditors' Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. 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 auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

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



The Commissioners and Board of Trustees Washington Suburban Sanitary Commission

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the Plan as of December 31, 2019 and 2018, and the respective changes in financial position for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis (MD&A), the schedule of changes in net pension liability and related ratio, the schedule of employer contributions, and the schedule of investment returns 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 audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated September 14, 2020, on our consideration of the Plan's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Plan's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering Plan's internal control over financial reporting and compliance.

CliftonLarsonAllen LLP

Clifton Larson Allen LLP

Baltimore, Maryland September 14, 2020

The Washington Suburban Sanitary Commission Employees' Retirement Plan (the "Plan") provides retirement benefits to the employees, retirees, and beneficiaries of the Washington Suburban Sanitary Commission ("WSSC Water"). To facilitate understanding the Plan's financial performance for the years ended December 31, 2019 and 2018, management has prepared this discussion and analysis. The following discussion and analysis should be read in conjunction with the Plan's financial statements and supplementary information provided in this report.

OVERVIEW OF THE FINANCIAL STATEMENTS AND SCHEDULES

The financial information presented in this report includes two financial statements, the notes to the financial statements, and supplementary information.

The Statements of Fiduciary Net Position show the amount of assets and deferred outflow of resources, liabilities and deferred inflow of resources, and net position held in trust for pension beneficiaries as of the end of the current and prior calendar years.

The Statements of Changes in Fiduciary Net Position show the additions to, and reductions in, the Plan's net position during the current and prior fiscal years. The statements present the major sources and uses of funds.

The Notes to Financial Statements contain disclosures and discussions which support the data presented in the financial statements. The notes present information about the creation and administration of the Plan, significant accounting policies and investments. The notes are an integral part of the financial statements and should be considered in conjunction with any review of the financial statements.

The Supplementary Information includes additional information on the Plan's financial condition and trends, including information on changes in the net pension liability and related ratios, contributions, actuarial assumptions, investment returns, investments and actuarial assumptions.

FINANCIAL HIGHLIGHTS

Fiscal Year 2019

- As of December 31, 2019, the Plan's net position held in trust for current and future retirement benefits was \$860.7 million. This reflects an increase in the Plan's net position of \$119.1 million from the prior year.
- The net investment gain was \$151.4 million for fiscal year 2019. This was comprised of \$131.5 million net appreciation in the fair market value of investments, \$22.9 million in dividends and interest income, and investment expenses of \$3.1 million. For fiscal year 2018, the net investment loss was \$60.3 million. The 2019 increase reflects the continued bull markets for global equities, led by U.S. returns.

• The total investment return for 2019 was 20.6%. For the period ended December 31, 2019, the Plan returned 7.2% per annum over the past five years and 8.2% annualized over the past ten years.

Fiscal Year 2018

- As of December 31, 2018, the Plan's net position held in trust for current and future retirement benefits were \$741.6 million. This reflects a decrease in the Plan's net position of \$92.2 million from the prior year.
- The net investment loss was \$60.3 million for fiscal year 2018. This was comprised of \$74.1 million net depreciation in the fair market value of investments off set by \$16.5 million in dividends and interest income, and investment expenses of \$2.8 million. For fiscal year 2017, the net investment income was \$118.2 million. The 2018 decrease reflects the world equity markets decline and the volatility due to on-going concerns over trade tensions and global growth.
- The total investment return for 2018 was a decline of 7.4%. For the period ended December 31, 2018, the Plan returned 4.3% per annum over the past five years and 8.2% annualized over the past ten years.

FINANCIAL ANALYSIS

Table 1 – Condensed Statements of Plan Net Position as of December 31, 2019, 2018, and 2017.

				2019-2	018	2018-2	017
	2019	2018	2017	Variance	% Variance	Variance	% Variance
<u>ASSETS</u>							
Cash, Cash Equivalents and Investments	\$903,471,697	\$769,142,802	\$867,140,094	\$134,328,895	17.5%	(\$97,997,292)	-11.3%
Receivables	983,093	606,391	874,547	376,702	62.1%	(268,156)	-30.7%
Total Assets	904,454,790	769,749,193	868,014,641	134,705,597	17.5%	(98,265,448)	-11.3%
LIABILITIES Payables for Collateral Received under Securities Lending Agreements	42,673,508	27,643,078	33,118,532	15,030,430	54.4%	(5,475,454)	-16.5%
Benefits payable and accrued expenses	1,093,673	521,273	1,070,751	572,400	109.8%	(549,478)	-51.3%
Total Liabilities	43,767,181	28,164,351	34,189,283	15,602,830	55.4%	(6,024,932)	-17.6%
Net Position Restricted for Pension	\$860,687,609	\$741,584,842	\$833,825,358	\$119,102,767	16.1%	(\$92,240,516)	-11.1%

Fiscal Year 2019

The Plan's cash, cash equivalents and investments for fiscal year 2019 increased by \$134.3 million or 17.5%. The increase was due primarily to investment gains of \$154.5 million, contributions totaling \$31.5 million, benefit payments and refunds of \$63.7 million.

As shown in Table 2a - Investments by Manager/Advisor with Rates of Returns as of December 31, 2019, a significant portion of the Plan's investments were managed by Vanguard (34.7%), Morgan Stanley Asset Management (9.2%), Investment Counselors of Maryland (8.3%) and Prudential Retirement Insurance and Annuity Company (8.3%). For the year ended December 31, 2019, most managers/advisors reflected an average annual rate return in excess of 8% under management. Overall, the weighted average annual rate return was 20.9% which contributed to an increase in net investment income by 350.9% to \$151.4 million.

Table 2a - Investments by Manager/Advisor with Rates of Returns as of December 31, 2019.

	 Investment Value	Percentage of Total Assets	Average Annual Rate of Return %
CastleArk Management	\$ 56,367,608	6.6%	29.5%
Northern Trust Asset Management	63,370,325	7.4%	9.9%
Income Research & Management	30,126,001	3.5%	8.4%
State Street Global Advisors	41,101,412	4.8%	26.5%
Prudential Retirement Insurance and Annuity Company	71,295,218	8.3%	3.0%
Vanguard	297,015,631	34.7%	25.7%
Morgan Stanley Asset Management	79,159,865	9.2%	20.8%
Dimensional Fund Advisors	38,529,365	4.5%	9.6%
Investment Counselors of Maryland	70,833,086	8.3%	26.2%
MFS Low Volatility Global Equity Fund	54,925,272	6.4%	9.9%
Dodge & Cox Global Stock	 54,293,417	6.3%	8.6%
Total Investments	\$ 857,017,200	100.0%	

During the year, the Board of Trustees met regularly to monitor investment manager performance. During calendar year 2019, Board actions included:

• Revised its Investment Policy Statement to eliminate its allocation to the Global Tactical Asset Allocation space, with the 10% target allocation added back to equities (+4%, split equally U.S. and non-U.S.), fixed income (+4%), and real estate (+2%).

- Terminated Global Tactical Asset Allocation manager Wellington and Global Equity manager J.P. Morgan, with a portion of the proceeds used to fund allocations to new Global Equity managers, Dodge and Cox and MFS Investments. The residual was transferred to the Prudential Guaranteed Deposit Account.
- Voted to permit a fee increase for Investment Consultant, Marquette Associates their only increase in over nine years of service to the Board.
- Voted in December to correct a U.S. Equity overweight by funding 1Q20 annuity payments via a January transfer of \$15 million from CastleArk to the Prudential Guaranteed Deposit Account.

Receivables for fiscal year 2019 increased by \$0.4 million or 62.1% primarily due to an increase in dividend and accrued interest receivable.

Total liabilities increased by \$15.6 million or 55.4%. This is due primarily to an increase in payables for collateral received under securities lending agreements which increased from \$27.6 million in 2018 to \$42.7 million in 2019 or 54.4%.

Fiscal Year 2018

The Plan's cash, cash equivalents and investments for fiscal year 2018 decreased by \$98.0 million or 11.3%. The decrease was due primarily to investment loss of \$57.5 million, contributions totaling \$29.6 million, benefit payments and refunds of \$61.5 million, and a decrease in the value of collateral received under securities lending agreements of \$5.5 million.

As shown in Table 2b - Investments by Manager/Advisor with Rates of Returns as of December 31, 2018, a significant portion of the Plan's investments were managed by Vanguard (32.1%), JP Morgan Asset Management (9.2%), and Morgan Stanley Asset Management (8.9%). For the year ended December 31, 2018, all but one managers/advisors reflected a negative return for funds under management.

Table 2b - Investments by Manager/Advisor with Rates of Returns as of December 31, 2018.

	 Investment Value	Percentage of Total Assets	Average Annual Rate of Return %
CastleArk Management	\$ 42,762,476	5.8%	-3.9%
Northern Trust Asset Management	57,720,224	7.8%	-1.1%
Income Research & Management	27,800,508	3.8%	-1.4%
State Street Global Advisors	32,485,197	4.4%	-8.3%
Prudential Retirement Insurance and Annuity Company	56,196,029	7.6%	2.9%
Vanguard	236,513,478	32.1%	-5.0%
Morgan Stanley Asset Management	65,527,605	8.9%	-13.5%
Dimensional Fund Advisors	35,140,374	4.8%	-11.9%
Investment Counselors of Maryland	56,147,356	7.6%	-14.0%
JP Morgan Asset Management	68,045,066	9.2%	-13.1%
Wellington Trust Company	 58,995,467	8.0%	-11.5%
Total Investments	\$ 737,333,780	100.0%	

During the year, the Board of Trustees met regularly to monitor investment manager performance. During calendar year 2018, Board actions included:

• Modified U.S. Equity overweight by transferring \$40 million from the Vanguard Total Stock Market Index fund to the Prudential Guaranteed Deposit Account.

Receivables for fiscal year 2018 decreased by \$0.3 million or 30.7% due to a decrease in dividend and accrued interest receivable.

Total liabilities decreased by \$6.0 million or 17.6%. This is due primarily to a decrease in payables for collateral received under securities lending agreements which decreased from \$33.1 million in 2017 to \$27.6 million in 2018 or 16.5%.

Table 3 – Condensed Statements of Changes in Plan Net Position as of December 31, 2019, 2018 and 2017.

				_	2019-20	18	2018-20	17
	2019	2018	2017		Variance	Percent Variance	Variance	Percent Variance
ADDITIONS								
Net Investment Income (Loss)	\$ 151,365,814	\$ (60,337,268)	\$ 118,185,476	\$	211,703,082	350.9%	\$ (178,522,744)	-151.1%
Contributions	31,469,749	29,630,198	29,483,969	_	1,839,551	6.2%	146,229	0.5%
Net Increase (Decrease)	182,835,563	(30,707,070)	147,669,445		213,542,633	695.4%	(178,376,515)	-120.8%
<u>DEDUCTIONS</u>								
Benefits Payments and Refunds	63,732,796	61,533,446	58,642,039	_	2,199,350	3.6%	2,891,407	4.9%
Net Increase (Decrease)	119,102,767	(92,240,516)	89,027,406		211,343,283	229.1%	(181,267,922)	-203.6%
NET POSITION								
Beginning of Year	741,584,842	833,825,358	744,797,952		(92,240,516)	-11.1%	89,027,406	12.0%
End of Year	\$ 860,687,609	\$ 741,584,842	\$ 833,825,358	\$	119,102,767	16.1%	\$ (92,240,516)	-11.1%

Fiscal Year 2019

Net investment income was comprised of interest and dividends and net appreciation/depreciation in the fair value of investments less investment expenses. Interest and dividends increased, from \$16.5 million in 2018, to \$22.9 million in 2019. The financial markets reflected favorable conditions during the year and, accordingly, net appreciation in the fair value of the investments was \$131.5 million for 2019, compared to net depreciation of \$74.1 million for fiscal year 2018. The increase in net investment income was primarily due to most of the Plan's funds reflecting positive rates of return. The Plan had an overall rate of return of 20.6% for fiscal year 2019.

Investment expenses increased by \$0.3 million or 9.25%. Investment expenses represent approximately 0.36% or 36 basis points of average net position.

Participant and Plan sponsor contributions increased in 2019 to \$31.5 million from \$29.6 million in 2018 due to an increase in the number of employees and higher salary levels. Retirement annuity benefit payments totaled \$63.7 million. This represented an increase of \$2.2 million over 2018, which is due to an increase in cost-of-living and the number of retirees.

Fiscal Year 2018

Net investment income was comprised of interest and dividends and net appreciation/depreciation in the fair value of investments less investment expenses. Interest and dividends increased, from \$14.9 million in 2017, to \$16.5 million in 2018. The financial markets reflected unfavorable conditions during the year and, accordingly, net depreciation in the fair value of the investments was \$74.1 million for 2018, compared to net appreciation of \$106.0 million for fiscal year 2017. The decrease in net investment income was primarily due to most of the Plan's funds reflecting negative rates of return. The Plan had an overall rate of return of (7.4) % for fiscal year 2018.

Investment expenses increased by \$0.2 million or 6.2%. Investment expenses represent approximately 0.38% or 38 basis points of average net position.

Participant and Plan sponsor contributions increased in 2018 to \$29.6 million from \$29.5 million in 2018 due to an increase in the number of employees and higher salary levels. Retirement annuity benefit payments totaled \$61.5 million. This represented an increase of \$2.9 million over 2017, which is due to an increase in cost-of-living and the number of retirees.

PLAN FUNDING

Fiscal Year 2019

On an annual or biennial basis, the market value of the Plan's assets and its investment gains and losses are reviewed by the Plan's actuary to determine the viability and funding progress of the Plan, the latest of which was performed effective June 30, 2019. The Plan's actuarially determined target rate of investment return is 7.0% net of expenses, reflecting the most recent Assumption Study, which also updated assumptions concerning mortality, inflation, and salary scale.

The Plan began using the average value method to determine actuarial asset value effective July 1, 2007. This smoothing method explicitly recognizes each year's investment gain or loss over a five-year period with the final actuarial value not less than 80% or more than 120% of the market.

WASHINGTON SUBURBAN SANITARY COMMISSION EMPLOYEES' RETIREMENT PLAN STATEMENTS OF PLAN NET POSITION YEARS ENDED DECEMBER 31, 2019 AND 2018

	2019	2018	
<u>ASSETS</u>			
Cash and Cash Equivalents (Note D)	\$ 3,780,989	\$	4,165,944
Collateral Received under			
Securities Lending Agreements (Note E)	42,673,508		27,643,078
Investments at Fair Value (Note F):			
Mutual Fund	460,671,499		327,801,208
Commingled Funds	175,186,549		225,053,334
U.S. Government and Agency Bonds	67,998,430		64,858,319
Corporate Bonds	25,469,606		20,631,062
Common Stock	56,367,608		42,766,190
Investment Contracts with Insurance Company	71,295,218		56,196,029
Limited Partnership Units	20,000		20,000
Other Fixed Holdings	 8,290		7,638
Total Investments	 857,017,200		737,333,780
Dividends and accrued interest receivable	681,203		462,419
Contributions receivable from employees	 301,890		143,972
Total Assets	 904,454,790		769,749,193
<u>LIABILITIES</u>			
Payable for Collateral Received under			
Securities Lending Agreements (Note E)	42,673,508		27,643,078
Benefits Payable and Accrued Expenses	1,093,673		521,273
Total Liabilities	43,767,181		28,164,351
Net Position Restricted for Pension	\$ 860,687,609	\$	741,584,842

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

WASHINGTON SUBURBAN SANITARY COMMISSION EMPLOYEES' RETIREMENT PLAN STATEMENTS OF CHANGES IN PLAN NET POSITION YEARS ENDED DECEMBER 31, 2019 AND 2018

	2019		2018	
ADDITIONS				
Investment Income				
Net Appreciation/(Depreciation) in the				
Fair Value of Plan Investments	\$	131,521,146	\$	(74,049,947)
Dividends and Interest		22,939,508		16,545,457
		154,460,654		(57,504,490)
Less Investment Expenses		(3,094,839)		(2,832,778)
Net Investment Income		151,365,815		(60,337,268)
Contributions				
WSSC Water Contributions		26,524,110		25,479,895
Employee Contributions		4,945,638		4,150,303
Total Contributions		31,469,748		29,630,198
Total Additions		182,835,563		(30,707,070)
<u>DEDUCTIONS</u>				
Benefit Payments to Retirees and Refunds		63,732,796		61,533,446
Net Increase/Decrease in Net Position		119,102,767		(92,240,516)
Net Position Restricted for Pension				
Beginning of Year		741,584,842		833,825,358
End of Year	\$	860,687,609	\$	741,584,842

The accompanying notes are an integral part of these financial statements

NOTE A. DESCRIPTION OF PLAN

General

The Washington Suburban Sanitary Commission Employees' Retirement Plan (the Plan), a single employer contributory defined benefit retirement plan, was established in 1967 to provide retirement and death benefits for the employees of the WSSC Water under conditions set forth in the Plan Document based on an employee's age, length of service and compensation. The Retirement Plan Document is amended from time to time. As of December 31, 2019, the Plan was last amended in April 2019. The Plan may be amended by Commission resolution or by the Executive Director on behalf of the Commission.

WSSC Water implemented the Open Version of the Plan on July 1, 1978. Members of the Plan as of June 30, 1978 had an option to be included in the Open Version. This option expired December 31, 1978. The Open Version is mandatory for new employees. It generally provides for reduced employee contributions and benefits.

As of December 31, 2019, and 2018, there were 1,662 and 1,641 employees, respectively, participating in the Open Version of the Plan, and 5 and 5 employees, respectively, participating in the Closed Version of the Plan, a total of 1,667 and 1,646 employee participants, respectively.

As of December 31, 2019, and 2018, there were 1,662 and 1,630 retirees and/or beneficiaries, respectively, receiving benefits from the Plan, and there were 116 and 110 terminated vested employees, respectively, not yet receiving benefits. Sixteen and eleven employees retired in fiscal years 2019 and 2018, respectively, and began receiving benefits in subsequent fiscal years.

The Plan provides a review process for participants whose claim for benefits is denied. There were no reviews pending as of December 31, 2019 and 2018.

Contributions

The Plan requires employees under the Closed Version to contribute 6% of gross wages and employees under the Open Version to contribute 3% of gross wages as a condition of employment. WSSC Water contributions are determined through the budget process as recommended by the Executive Director annually based upon a level percentage of payroll costs based on the advice and recommendation of an Actuary based on generally accepted actuarial principles.

NOTE A. DESCRIPTION OF PLAN (Continued)

Expenses

WSSC Water pays the administrative expenses of the Plan, other than investment management, legal, and consulting fees. WSSC Water may be reimbursed by the Plan for the paid administrative expenses. During the year end December 31, 2019, the Plan reimbursed WSSC Water of \$438,993. There was no reimbursed cost for the year ended December 31, 2018.

Pension Benefits

The Plan provides for 100% vesting of retirement benefits after five years of credited service.

Generally, the normal retirement benefits payable to an eligible participant are equal to the sum of:

- 1. 2.1% of final average monthly compensation multiplied by the Closed Version credited service, plus
- 2. 1.4% of final average monthly compensation multiplied by the Open Version credited service where the sum of Closed Version credited service and Open Version credited service, exclusive of accumulated sick leave service is subject to a maximum of 36 years.

The Plan provides options for disability and early retirement to eligible participants or their surviving spouses.

The Plan provides for periodic cost of living increases to retirement benefits. Participants covered by the Closed Version will receive an increase two months following a sustained increase in the Consumer Price Index of 3% or more. Participants in the Open Version receive an increase each March 1, based on the preceding calendar year's increase in the Consumer Price Index. The first increase may be pro-rated depending on the time of retirement.

Plan Termination

In the event of termination, Plan assets are to be allocated in the following priorities:

- 1. Expenses, fees and other charges under the Plan, not previously paid.
- 2. Pension benefits based upon contributions made by employees and interest earned thereon.
- 3. Pension benefits based upon contributions made by the employer which are vested.
- 4. All other pension benefits under the Plan.

NOTE A. DESCRIPTION OF PLAN (Continued)

Plan Governance

WSSC Water established a Board of Trustees (the "Board") for the Plan to be responsible for the investment management of the Plan's assets for the exclusive benefit of the Plan's participants. The trustees are governed by a Trust Agreement. The agreement provides for trustees to be appointed by WSSC Water and for the eleven-member Board to be composed of two Commissioners, four employees who are participants of the Plan, two representatives of the public, two retirees who are participants in the Plan, and the Executive Director of the Plan.

The administration of the Plan is managed by the Executive Director of the Washington Suburban Sanitary Commission Employees' Retirement Plan who is appointed by the General Manager of WSSC Water.

NOTE B. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Accounting

The financial statements of the Plan are presented on the accrual basis of accounting, under which expenses are recorded when the liability is incurred, and revenues are recorded in the accounting period in which they are earned and become measurable.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates.

Cash and Cash Equivalents

The Plan considers all cash and highly liquid investments with an original maturity of three months or less to be cash and cash equivalents.

Investments

The Plan categorize fair value measurements within the fair value hierarchy established by GASB Statement No. 72, *Fair Value Measurement and Application*. The valuation technique uses a three-level hierarchy of inputs to measure the fair value of the asset and gives the highest priority to unadjusted quoted prices in active markets (level 1 measurements) and the lowest priority to unobservable inputs (level 3 measurements).

NOTE B. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

These classifications are summarized as follows:

- Level 1 Inputs: Quoted prices (unadjusted) for identical assets or liabilities in active markets that a reporting entity can access at the measurement date.
- Level 2 Inputs: Inputs other than quoted prices included within Level 1 that are observable for an asset or liability, either directly or indirectly.
- Level 3 Inputs: Unobservable inputs for an asset or liability.

Fair value of certain investment that do not have a readily determinable fair value is established using net asset value (or its equivalent) as a practical expedient. These investments are not categorized according to the fair value hierarchy.

The Plan holds investment contracts with Prudential Financial. The fair value of these contracts is determined based on the fair value of the underlying pooled assets and is an estimate only and not the result of a precise calculation which would be done at contract discontinuance or to measure the impact of excess withdrawals in any calendar year. It does not constitute an offer by Prudential Financial or a final experience adjustment.

Net appreciation (depreciation) in the fair value of investments reflected in the Statement of Changes in Fiduciary Net Position includes realized gains and losses on investments that were sold during the year and unrealized appreciation (depreciation) in the fair value of investments.

Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the ex-dividend date.

NOTE C. TAX STATUS

The Plan obtained its latest determination letter dated April 26, 2017, in which the Internal Revenue Services stated that the Plan, as then designed, was in compliance with the applicable requirements of the Internal Revenue Code. The Plan is currently designed and being operated in compliance with the applicable requirements of the Internal Revenue Code; therefore, the Plan was qualified, and the related Trust was tax exempt as of December 31, 2019 and 2018.

NOTE D. CASH AND CASH EQUIVALENTS

Cash and cash equivalents consisted of short-term investments funds of \$3,780,989 and \$4,165,944 as of December 31, 2019 and 2018, respectively.

NOTE E. SECURITY LENDING

The Board of Trustees permits the Plan to lend its securities to broker-dealers and other entities (the "Borrowers") for collateral that will be returned for the same securities in the future. The Plan's custodian is the agent in lending the Plan's securities for collateral of 102 percent for domestic securities and 105 percent for international securities. The custodian receives cash, securities or irrevocable bank letters of credit as collateral. All securities loans can be terminated on demand by either the Plan or the Borrowers. Cash collateral received from the Borrowers is invested by the lending agent, as an agent for the Plan, in a short-term investment pool in the name of the Plan, with guidelines approved by the Board. Such investments are considered a collateralized investment pool. The relationship between the maturities of the investment pool and the Plan's loans is affected by the maturities of securities loans made by other plan entities that invest cash collateral in the investment pool, and which the Plan cannot determine. The Plan records a liability for the return of the cash collateral shown as collateral held for securities lending in the Statements of Plan Net Position. The Board does not restrict the amount of loans the lending agent may make on its behalf. The agent indemnifies the Plan by agreeing to purchase replacement securities, or return the cash collateral thereof, in the event a Borrower fails to return loaned securities or pay distributions thereon.

As of December 31, 2019, and 2018, the fair value of securities on loan was \$41,515,563 and \$27,081,567, respectively. Cash received as collateral and the related liability of \$42,673,508 and \$27,643,078 as of December 31, 2019 and 2018 are shown on the Statements of Plan Net Position. Securities received as collateral are not reported as assets since the Plan does not have the ability to pledge or sell the collateral securities.

Securities lending revenues and expenses amounting to \$997,009 and \$920,974, respectively, for December 31, 2019 and \$856,629 and \$777,476, respectively, for December 31, 2018, have been classified with investment income and investment expenses, respectively, in the accompanying financial statements.

NOTE E. SECURITY LENDING (Continued)

The following represents the balances relating to the securities lending transactions as of December 31:

	2(019	2018		
	Fair Value of Underlying Securities	Cash Collateral Investment Value	Fair Value of Underlying Securities	Cash Collateral Investment Value	
Securities Loaned for Cash Collateral					
Corporate Bonds	\$ 4,123,325	\$ 4,227,051	\$ 3,176,418	\$ 3,246,459	
Common Stock	9,830,361	10,053,288	8,272,934	8,430,773	
U.S. Government & Agency Bonds	27,561,877	28,393,169	15,632,215	15,965,846	
Total	\$ 41,515,563	\$ 42,673,508	\$ 27,081,567	\$ 27,643,078	

The Plan is fully indemnified by its custodial bank against any losses incurred as a result of Borrower default.

Custodial credit risk is the risk that, in the event of the failure of the counterparty, the Plan will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. At December 31, 2019 and 2018, there were no funds held by a counterparty that was acting as the Plan's agent in securities lending transactions.

NOTE F. INVESTMENTS

Investment Policy

The Plan's investment policy and any changes to the policy are adopted by the Board of Trustees of the Plan. The most recent version of the policy was approved in March 2019 and contains long-term asset allocation ranges.

The primary objective of the investment policy is to assure that assets will be available to pay retirement benefits throughout the life of the Plan and to maintain or improve the market value of the fund relative to vested and accrued benefit liabilities. The objectives seek to preserve the actuarial soundness of the Plan by achieving a long-term return of at least the actuarial return rate and to prudently manage the inherent investment risks that are related to the achievement of this goal.

NOTE F. INVESTMENTS (Continued)

Long-term asset allocation ranges are developed based on several factors including: the long-term investment goals of the Plan; the Trustee's tolerance for short-term losses; the Plan's liquidity needs; and any legal or regulatory requirements.

The Plan has a rebalancing policy, which allows the Executive Director and staff the flexibility to adjust assets classes for purposes of rebalancing without approval from the Board of Trustees.

As of December 31, 2019, and 2018, the Plan's long-term asset allocation ranges were as follows:

	20	19	20	018	
	Target%	Range %	Target%	Range %	
U.S. Stocks	42%	37-47%	40%	35-45%	
Non-U.S. Stocks	14%	10-18%	12%	9-15%	
Emerging Markets Stocks	5%	2-8%	5%	2-8%	
Global Tactical Asset Allocation		-	10%	6-14%	
Total equity	61%		67%		
Fixed Income	27%	23-31%	23%	19-27%	
Real Return Strategies	5%	0-10%	5%	0-10%	
Real Estate	7%	4-10%	5%	0-10%	
Total	100%		100%		

Money-Weighted Rate of Return

For the years ended December 31, 2019 and 2018, the annual money-weighted rate of return on Plan investments, net of investment expense, was 20.9% and -7.4% respectively. The money-weighted rate of return considers the changing amounts invested during a period and weights the amount of pension plan investments by the proportion of time they are available to earn a return during that period. External cash flows are determined on a monthly basis and are assumed to occur at the end of each month. External cash inflows are netted with external cash outflows, resulting in a net external cash flow in each month. The money-weighted rate of return is calculated net of investment expenses.

NOTE F. INVESTMENTS (Continued)

The Plan has the following fair value measurements as of December 31, 2019 and 2018:

Active Markets for Significant Other

Quoted Prices in

Significant

Unobservable

Act	Level 1	\$ \$	67,998,430 - 12,115,854 13,353,752 - 3,058,757 - 92,816,473 20,000 8,290 189,371,556	\$	evel 3		\$	67,998,430 -12,115,854 13,353,752 53,308,852 3,058,757 367,855,025 92,816,473 20,000 8,290 610,535,433 71,295,218 175,186,549 857,017,200
Fixed Income Securities: Government and Agency Bonds Domestic Bonds International Bonds Corporate Bonds and Securities Domestic Bonds and Securities International Bonds and Securities Common Stock: U.S. Stock International Stock Mutual Funds: U.S. Equity Funds Non-U.S. Equity Funds Limited partnership units Other fixed holdings Investments carried at amortized cost: Investment contracts with insurance company Investments carried at the Net Asset Value (NAV): Commingled funds Total Investments Investments Quact Id Investments by fair value level: Fixed Income Securities: Government and Agency Bonds Domestic Bonds International Bonds Corporate Bonds and Securities	367,855,025 421,163,877 doted Prices in ive Markets for entical Assets	\$	12,115,854 13,353,752 - 3,058,757 - 92,816,473 20,000 8,290	\$	nificant	<u>-</u>		12,115,854 13,353,752 53,308,852 3,058,757 367,855,025 92,816,473 20,000 8,290 610,535,433 71,295,218
Government and Agency Bonds Domestic Bonds International Bonds Corporate Bonds and Securities Domestic Bonds and Securities International Bonds and Securities International Bonds and Securities Common Stock: U.S. Stock International Stock Mutual Funds: U.S. Equity Funds Non-U.S. Equity Funds Limited partnership units Other fixed holdings Investments carried at amortized cost: Investments carried at the Net Asset Value (NAV): Commingled funds Total Investments Investments Investments Qu Act Id Investments by fair value level: Fixed Income Securities: Government and Agency Bonds Domestic Bonds International Bonds Corporate Bonds and Securities	367,855,025 421,163,877 doted Prices in ive Markets for entical Assets	\$	12,115,854 13,353,752 - 3,058,757 - 92,816,473 20,000 8,290	\$	nificant	<u>-</u>		12,115,854 13,353,752 53,308,852 3,058,757 367,855,025 92,816,473 20,000 8,290 610,535,433 71,295,218
Domestic Bonds International Bonds Corporate Bonds and Securities Domestic Bonds and Securities International Bonds and Securities Common Stock: U.S. Stock International Stock Mutual Funds: U.S. Equity Funds Non-U.S. Equity Funds Limited partnership units Other fixed holdings Investments carried at amortized cost: Investment contracts with insurance company Investments carried at the Net Asset Value (NAV): Commingled funds Total Investments Investments Quact Investments Quact Investments by fair value level: Fixed Income Securities: Government and Agency Bonds Domestic Bonds International Bonds Corporate Bonds and Securities	367,855,025 421,163,877 doted Prices in ive Markets for entical Assets	\$	12,115,854 13,353,752 - 3,058,757 - 92,816,473 20,000 8,290	\$	nificant	<u>-</u>		12,115,854 13,353,752 53,308,852 3,058,757 367,855,025 92,816,473 20,000 8,290 610,535,433 71,295,218
Domestic Bonds International Bonds Corporate Bonds and Securities Domestic Bonds and Securities International Bonds and Securities U.S. Stock International Stock Mutual Funds: U.S. Equity Funds Non-U.S. Equity Funds Limited partnership units Other fixed holdings Investments carried at amortized cost: Investment contracts with insurance company Investments carried at the Net Asset Value (NAV): Commingled funds Total Investments Investments Quact Id Investments by fair value level: Fixed Income Securities: Government and Agency Bonds Domestic Bonds International Bonds Corporate Bonds and Securities	367,855,025 421,163,877 doted Prices in ive Markets for entical Assets	\$	12,115,854 13,353,752 - 3,058,757 - 92,816,473 20,000 8,290	\$	nificant	<u>-</u>		12,115,854 13,353,752 53,308,852 3,058,757 367,855,025 92,816,473 20,000 8,290 610,535,433 71,295,218
International Bonds Corporate Bonds and Securities Domestic Bonds and Securities International Bonds and Securities Common Stock: U.S. Stock International Stock Mutual Funds: U.S. Equity Funds Non-U.S. Equity Funds Limited partnership units Other fixed holdings Investments carried at amortized cost: Investment contracts with insurance company Investments carried at the Net Asset Value (NAV): Commingled funds Total Investments Investments Quact Id Investments by fair value level: Fixed Income Securities: Government and Agency Bonds Domestic Bonds International Bonds Corporate Bonds and Securities	367,855,025 421,163,877 doted Prices in ive Markets for entical Assets	\$	12,115,854 13,353,752 - 3,058,757 - 92,816,473 20,000 8,290	\$	nificant	<u>-</u>		12,115,854 13,353,752 53,308,852 3,058,757 367,855,025 92,816,473 20,000 8,290 610,535,433 71,295,218
Corporate Bonds and Securities Domestic Bonds and Securities International Bonds and Securities Common Stock: U.S. Stock International Stock Mutual Funds: U.S. Equity Funds Non-U.S. Equity Funds Limited partnership units Other fixed holdings Investments carried at amortized cost: Investment contracts with insurance company Investments carried at the Net Asset Value (NAV): Commingled funds Total Investments Ode Act Id Investments by fair value level: Fixed Income Securities: Government and Agency Bonds Domestic Bonds International Bonds Corporate Bonds and Securities	367,855,025 421,163,877 doted Prices in ive Markets for entical Assets		13,353,752 - 3,058,757 - 92,816,473 20,000 8,290		nificant	<u>-</u>	\$	13,353,752 53,308,852 3,058,757 367,855,025 92,816,473 20,000 8,290 610,535,433 71,295,218 175,186,549
Domestic Bonds and Securities International Bonds and Securities Common Stock: U.S. Stock International Stock Mutual Funds: U.S. Equity Funds Non-U.S. Equity Funds Limited partnership units Other fixed holdings Investments carried at amortized cost: Investment contracts with insurance company Investments carried at the Net Asset Value (NAV): Commingled funds Total Investments Ode Act Id Investments by fair value level: Fixed Income Securities: Government and Agency Bonds Domestic Bonds International Bonds Corporate Bonds and Securities	367,855,025 421,163,877 doted Prices in ive Markets for entical Assets		13,353,752 - 3,058,757 - 92,816,473 20,000 8,290		nificant	<u>-</u>	\$	13,353,752 53,308,852 3,058,757 367,855,025 92,816,473 20,000 8,290 610,535,433 71,295,218 175,186,549
International Bonds and Securities Common Stock: U.S. Stock International Stock Mutual Funds: U.S. Equity Funds Non-U.S. Equity Funds Limited partnership units Other fixed holdings Investments carried at amortized cost: Investment contracts with insurance company Investments carried at the Net Asset Value (NAV): Commingled funds Total Investments Qu Act Id Investments by fair value level: Fixed Income Securities: Government and Agency Bonds Domestic Bonds International Bonds Corporate Bonds and Securities	367,855,025 421,163,877 doted Prices in ive Markets for entical Assets		13,353,752 - 3,058,757 - 92,816,473 20,000 8,290		nificant	<u>-</u>	\$	13,353,752 53,308,852 3,058,757 367,855,025 92,816,473 20,000 8,290 610,535,433 71,295,218
Common Stock: U.S. Stock International Stock Mutual Funds: U.S. Equity Funds Non-U.S. Equity Funds Limited partnership units Other fixed holdings S Investments carried at amortized cost: Investment contracts with insurance company Investments carried at the Net Asset Value (NAV): Commingled funds Total Investments Outer fixed Income Securities: Government and Agency Bonds Domestic Bonds International Bonds Corporate Bonds and Securities	367,855,025 421,163,877 doted Prices in ive Markets for entical Assets		3,058,757 - 92,816,473 20,000 8,290		nificant	<u>-</u>	\$	53,308,852 3,058,757 367,855,025 92,816,473 20,000 8,290 610,535,433 71,295,218
U.S. Stock International Stock Mutual Funds: U.S. Equity Funds Non-U.S. Equity Funds Limited partnership units Other fixed holdings S Investments carried at amortized cost: Investment contracts with insurance company Investments carried at the Net Asset Value (NAV): Commingled funds Total Investments Investments Qu Act Id Investments by fair value level: Fixed Income Securities: Government and Agency Bonds Domestic Bonds International Bonds Corporate Bonds and Securities	367,855,025 421,163,877 doted Prices in ive Markets for entical Assets		92,816,473 20,000 8,290		nificant	<u>-</u>	\$	3,058,757 367,855,025 92,816,473 20,000 8,290 610,535,433 71,295,218 175,186,549
International Stock Mutual Funds: U.S. Equity Funds Non-U.S. Equity Funds Limited partnership units Other fixed holdings Investments carried at amortized cost: Investment contracts with insurance company Investments carried at the Net Asset Value (NAV): Commingled funds Total Investments Quact Investments by fair value level: Fixed Income Securities: Government and Agency Bonds Domestic Bonds International Bonds Corporate Bonds and Securities	367,855,025 421,163,877 doted Prices in ive Markets for entical Assets		92,816,473 20,000 8,290		nificant	<u>-</u>	\$	3,058,757 367,855,025 92,816,473 20,000 8,290 610,535,433 71,295,218 175,186,549
Mutual Funds: U.S. Equity Funds Non-U.S. Equity Funds Limited partnership units Other fixed holdings Investments carried at amortized cost: Investment contracts with insurance company Investments carried at the Net Asset Value (NAV): Commingled funds Total Investments Quacter of the Committee of the Committe	421,163,877 421,163,877		92,816,473 20,000 8,290		nificant	<u>-</u>	\$	367,855,025 92,816,473 20,000 8,290 610,535,433 71,295,218
U.S. Equity Funds Non-U.S. Equity Funds Limited partnership units Other fixed holdings Investments carried at amortized cost: Investment contracts with insurance company Investments carried at the Net Asset Value (NAV): Commingled funds Total Investments Quarket Investments by fair value level: Fixed Income Securities: Government and Agency Bonds Domestic Bonds International Bonds Corporate Bonds and Securities	421,163,877 421,163,877		20,000 8,290		nificant	<u>-</u>	\$	92,816,473 20,000 8,290 610,535,433 71,295,218 175,186,549
Non-U.S. Equity Funds Limited partnership units Other fixed holdings S	421,163,877 421,163,877		20,000 8,290		nificant	<u>-</u>	\$	92,816,473 20,000 8,290 610,535,433 71,295,218 175,186,549
Limited partnership units Other fixed holdings S	421,163,877 noted Prices in ive Markets for entical Assets		20,000 8,290		nificant	<u>-</u>	\$	20,000 8,290 610,535,433 71,295,218 175,186,549
Other fixed holdings S	421,163,877 noted Prices in ive Markets for entical Assets		8,290		nificant	<u>-</u>	\$	8,290 610,535,433 71,295,218 175,186,549
Other fixed holdings S	421,163,877 noted Prices in ive Markets for entical Assets		8,290		nificant	<u>-</u>	\$	8,290 610,535,433 71,295,218 175,186,549
Investments carried at amortized cost: Investment contracts with insurance company Investments carried at the Net Asset Value (NAV): Commingled funds Total Investments Quantity Act Id Investments by fair value level: Fixed Income Securities: Government and Agency Bonds Domestic Bonds International Bonds Corporate Bonds and Securities	noted Prices in ive Markets for entical Assets				nificant		\$	610,535,433 71,295,218 175,186,549
Investments carried at amortized cost: Investment contracts with insurance company Investments carried at the Net Asset Value (NAV): Commingled funds Total Investments Quarties Act Id Investments by fair value level: Fixed Income Securities: Government and Agency Bonds Domestic Bonds International Bonds Corporate Bonds and Securities	noted Prices in ive Markets for entical Assets		169,371,330		nificant		\$	71,295,218 175,186,549
Investments carried at the Net Asset Value (NAV): Commingled funds Total Investments Quarties Act Id Investments by fair value level: Fixed Income Securities: Government and Agency Bonds Domestic Bonds International Bonds Corporate Bonds and Securities	ive Markets for entical Assets	Sig		Sign	nificant	-	\$	175,186,549
Investments carried at the Net Asset Value (NAV): Commingled funds Total Investments Quarties Act Id Investments by fair value level: Fixed Income Securities: Government and Agency Bonds Domestic Bonds International Bonds Corporate Bonds and Securities	ive Markets for entical Assets	Sig		Sign	nificant	-	\$	175,186,549
Investments carried at the Net Asset Value (NAV): Commingled funds Total Investments Quarties Act Id Investments by fair value level: Fixed Income Securities: Government and Agency Bonds Domestic Bonds International Bonds Corporate Bonds and Securities	ive Markets for entical Assets	Sig		Sign	nificant	-	\$	175,186,549
Commingled funds Total Investments Qu Act Id Investments by fair value level: Fixed Income Securities: Government and Agency Bonds Domestic Bonds International Bonds Corporate Bonds and Securities	ive Markets for entical Assets	Sig		Sign	nificant	-	\$	
Commingled funds Total Investments Qu Act Id Investments by fair value level: Fixed Income Securities: Government and Agency Bonds Domestic Bonds International Bonds Corporate Bonds and Securities	ive Markets for entical Assets	Sig		Sigi	nificant	-	\$	
Investments Out Act Id Investments by fair value level: Fixed Income Securities: Government and Agency Bonds Domestic Bonds International Bonds Corporate Bonds and Securities	ive Markets for entical Assets	Sig		Sigi	nificant	-	\$	
Investments by fair value level: Fixed Income Securities: Government and Agency Bonds Domestic Bonds International Bonds Corporate Bonds and Securities	ive Markets for entical Assets	Sig		Sigi	nificant	-	\$	857,017,200
Investments by fair value level: Fixed Income Securities: Government and Agency Bonds Domestic Bonds International Bonds Corporate Bonds and Securities	ive Markets for entical Assets	Sig		Sigi	nificant	-	7	037,017,200
Investments by fair value level: Fixed Income Securities: Government and Agency Bonds Domestic Bonds International Bonds Corporate Bonds and Securities	ive Markets for entical Assets	Sig		Sigi	nificant			
Investments by fair value level: Fixed Income Securities: Government and Agency Bonds Domestic Bonds International Bonds Corporate Bonds and Securities	ive Markets for entical Assets	Sig		Sigi	nificant			
Investments by fair value level: Fixed Income Securities: Government and Agency Bonds Domestic Bonds International Bonds Corporate Bonds and Securities	ive Markets for entical Assets	Sig		Sigi	nificant			
Investments by fair value level: Fixed Income Securities: Government and Agency Bonds Domestic Bonds International Bonds Corporate Bonds and Securities	entical Assets	Sig						
Investments by fair value level: Fixed Income Securities: Government and Agency Bonds Domestic Bonds International Bonds Corporate Bonds and Securities	entical Assets		nificant Other	Unol	bservable			
Investments by fair value level: Fixed Income Securities: Government and Agency Bonds Domestic Bonds International Bonds Corporate Bonds and Securities		Ohs	ervable Inputs		nputs		R:	alance as of
Fixed Income Securities: Government and Agency Bonds Domestic Bonds \$ International Bonds Corporate Bonds and Securities	I PVPI I	0.00	Level 2		evel 3			ember 31, 2018
Fixed Income Securities: Government and Agency Bonds Domestic Bonds \$ International Bonds Corporate Bonds and Securities	2010.2		2010.2				5000	
Government and Agency Bonds Domestic Bonds \$ International Bonds Corporate Bonds and Securities								
Domestic Bonds \$ International Bonds Corporate Bonds and Securities								
International Bonds Corporate Bonds and Securities								
Corporate Bonds and Securities	=	\$	64,650,169	\$		-	\$	64,650,169
	-		208,150			-		208,150
Domostic Ronds and Socurities								
Domestic bonds and Securities	-		16,156,114			-		16,156,114
International Bonds and Securities	-		4,474,948			-		4,474,948
Common Stock:								
U.S. Stock	42,766,190		_			_		42,766,190
Mutual Funds:	,,							,,
U.S. Equity Funds	292,660,834							292,660,834
• •	292,000,834		25 140 274					
Emerging Market Funds	-		35,140,374			-		35,140,374
Limited partnership units	-		20,000			-		20,000
Other fixed holdings	-		7,638			-		7,638
\$	335,427,024	\$	120,657,393	\$		_		456,084,417
Investments carried at amortized cost:								
Investment contracts with insurance company								56,196,029
•								
Investments carried at the Net Asset Value (NAV):								
Commingled funds								225,053,334
•						-		,,,,,,,,,,,
Total Investments							\$	737,333,780

NOTE F. INVESTMENTS (Continued)

Common stock and mutual funds classified in Level 1 of the fair value hierarchy are Valued utilizing prices last quoted sales/bid prices provided by independent pricing vendors. U.S government and agency securities, municipal and corporate bonds, and mutual funds classified in Level 2 of the fair value hierarchy are valued utilizing a matrix pricing technique. Matrix pricing is utilized to value securities based on the securities' relationship to benchmark quoted prices.

Commingled funds consist of investments in three investments trusts, the objectives of these funds are to invest in a diversified portfolio of international equity securities for capital appreciation, approximate the performance of the Russell 1000 Value Index, and investing in a portfolio of equity securities of companies in developed and emerging markets. These investments are valued at the net asset value (NAV) of units of the commingled trust. The NAV, as provided by the trustee, is used as a practical expedient to estimate fair value. The NAV is based on the fair value of the underlying investments held by the fund less its liabilities.

The valuation method for investments measured at the net asset value (NAV) per share (or its equivalent) as of December 31, 2019 and 2018 is presented on the following tables:

		Γ	December 31	1, 2019	
		Unf	funded	Redemption	Redemption
	Fair value	Com	nitments	Frequency	Notice Period
Morgan Stanley Investment Management					
International Equity Trust	\$ 79,159,865	\$	-	Daily	Daily
MFS Low Volatility	54,925,272		-	30 Days	30 Days
State Street Global Advisor	41,101,412			Daily	Daily
	\$ 175,186,549	\$	-		
	 Fair value	Unf	December 31 Funded mitments	Redemption Frequency	Redemption Notice Period
JP Morgan Global Focus Fund Morgan Stanley Investment Management	\$ 68,045,066	\$	-	Daily	Daily
International Equity Trust	65,527,605		-	Daily	Daily
Wellington OIA Fund	58,995,466		-	Monthly	30 Days
State Street Global Advisor	32,485,197		-	Daily	Daily
	\$ 225,053,334	\$	_		

NOTE F. INVESTMENTS (Continued)

Risks Common to Investments

The Plan's investments are subject to the following risks common to investments:

• Custodial Credit Risk is the risk that, in the event of a failure of the counterparty, the Plan will not be able to recover its investment or collateral securities that are in the possession of an outside party. Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in the name of the Plan, and are held by either the counterparty or the counterparty's trust department or agent but not in the Plan's name.

The Plan's investments for fiscal year 2019 and 2018 are partially insured and registered in the Plan's name and are generally segregated by the counterparty in a manner to protect them from certain claims by creditors. The Plan also invests in mutual and commingled trust funds which are not generally exposed to custodial credit risks. At December 31, 2019 and 2018, there were no deposits subject to custodial credit risk. The Plan has no policy to address any additional amounts potentially at risk.

• Credit Risk is the risk that an issuer to an investment will not fulfill its obligations. The Plan seeks to maintain a diversified portfolio of fixed income securities in order to obtain the highest total return at an acceptable level of risk. As of December 31, 2019, and 2018, the quality ratings of the Plan's fixed income investments in U.S. Government obligations and corporate bonds were as follows.

	201	9	2018			
Fiscal Year Quality Rating	Fair Value	Percentage of Total	Fair Value	Percentage of Total		
U.S Government and Agency Bonds:						
AAA/AA+	\$ 67,879,400	72.62%	\$ 64,858,319	75.87%		
BBB+	119,030	0.13%				
	67,998,430	72.75%	64,858,319	75.87%		
Corporate Bonds:						
AAA	5,512,442	5.90%	1,208,799	1.41%		
AA	674,401	0.72%	531,780	0.62%		
AA-	-	-	-	-		
A+	-	-	-	-		
Α	2,737,244	2.93%	2,720,112	3.18%		
A-	-	-	-			
BAA	-	-	12,542,592	14.67%		
BBB+	-	-	-	-		
BBB	11,984,384	12.82%	-	-		
BBB-	-	-	-	-		
BA	-	-	1,648,948	1.93%		
BB+	-	-	-	-		
Unrated	4,561,135	4.88%	1,978,831	2.32%		
Total Corporate Bonds	25,469,606	27.25%	20,631,062	24.13%		
Total	\$ 93,468,036	100.00%	\$ 85,489,381	100.00%		

NOTE F. INVESTMENTS (Continued)

Certain mutual funds of the Plan maintain investments that include fixed income securities, such as, the Vanguard High Yield Corporate Fund (Vanguard). As of December 31, 2019, and 2018, the ratings of the underlying securities of the Vanguard Fund were AAA/BBB/BB/Below B. The other mutual funds were equity-based, and the investment contracts were unrated. The Plan has no policy to address any additional amounts potentially at risk.

• Interest Rate Risk is the risk that changes in interest rates will adversely affect the fair value of an investment. Generally, the longer the maturity of an investment, the greater the sensitivity of its fair value to changes in market interest rates. Information about the sensitivity of the fair values of the Plan's investments to market interest rate fluctuations is provided by the following table that shows the distribution of the Plan's fixed income investments by maturity:

F	isca	ı١	/ear	. 2	01	9

		Remaining Maturities (In Months)						
Investment Type	Total	12 Months Or Less	13 to 24 Months	25 - 60 Months	More Than 60 Months			
U.S. Government and Agency bonds:								
Mortgage-backed securities	\$ 17,636,844	\$ 1,541,353	\$ 3,461,027	\$ 10,011,330	\$ 2,623,134			
U.S. Treasury Notes	50,361,586	2,764,141	9,392,089	21,895,712	16,309,644			
Corporate bonds	25,469,606	207,444	62,051	11,933,839	13,266,272			
	\$ 93,468,036	\$ 4,512,938	\$ 12,915,167	\$ 43,840,881	\$ 32,199,050			

Fiscal Year 2018

			Remaining Maturities (In Months)					
Investment Type	Total	12 Months Or Less	13 to 24 Months	25 - 60 Months	More Than 60 Months			
U.S. Government and Agency bonds:								
Mortgage-backed securities	\$ 17,172,438	\$ 1,864	\$ 54,670	\$ 11,149	\$ 17,104,755			
U.S. Treasury Notes	47,685,881	2,851,811	11,776,477	12,012,046	21,045,547			
Corporate bonds	20,631,062	1,007,835	1,060,250	2,757,608	15,805,369			
	\$ 85,489,381	\$ 3,861,510	\$ 12,891,397	\$ 14,780,803	\$ 53,955,671			

The mortgage-back securities listed above are considered highly sensitive to interest rate risk. The Plan has no policy to address any additional amounts potentially at risk.

NOTE F. INVESTMENTS (Continued)

• Foreign Currency Risk is the risk that changes in exchange rates will adversely affect the fair value of an investment in a foreign financial institution. The Plan mitigates this risk by limiting its investments in non-U.S. securities. As of December 31, 2019, and 2018, the Plan held no investments in foreign currency denominations, however the following mutual and/or comingled funds contained underlying foreign related investments as follows:

	2019	2018
Morgan Stanley Investment Management		
International Equity Trust	\$ 79,159,865	\$ 65,527,605
Dimensional Fund Advisors	38,529,365	35,140,374
MFS Low Volatility	31,307,405	-
Dodge & Cox Global Stock	30,187,140	-
Vanguard Global EX-US R/E Index Fund	24,099,968	19,872,902
JP Morgan Global Focus Fund	-	68,045,066
Wellington OIA Fund		58,995,466
Total	\$203,283,743	\$247,581,413

• Concentration of Credit Risk - Individual investments that represent 5 percent or more of the Plan's net position are as follows as of December 31:

 2019		2018
\$ 70,833,086	\$	56,147,357
160,985,204		125,820,091
79,159,865		65,527,605
54,293,417		-
54,925,272		-
77,729,069		66,573,335
-		58,995,466
		68,045,066
\$ 497,925,913	\$	441,108,920
\$	\$ 70,833,086 160,985,204 79,159,865 54,293,417 54,925,272 77,729,069	\$ 70,833,086 \$ 160,985,204 \$ 79,159,865 54,293,417 54,925,272 77,729,069

NOTE F. INVESTMENTS (Continued)

For U.S. Government or Agency securities, investment managers invest no more than 7 percent of their portion of Plan assets, at cost, and no more than 10 percent at market, in securities of any one issuer or its subsidiaries or affiliates.

NOTE G. RISKS AND UNCERTAINTIES

The Plan invests in various investment securities that are exposed to various risks such as interest rate, market, and credit risk. Due to the level of risk associated with investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such change could materially affect the amounts reported in the statements of plan net position.

NOTE H. RELATED-PARTY TRANSACTIONS

An affiliate of the Plan's custodian, Northern Trust Asset Management, became an investment manager for the Plan in fiscal year 2014. At December 31, 2019, funds managed totaled \$65.0 million, and comprised of cash equivalents and investments of \$1.6 million and \$63.4 million, respectively. For the year ended December 31, 2019, the Plan incurred approximately \$109,137 in management fees with this investment manager.

At December 31, 2018, funds managed totaled \$61.9 million, and comprised of cash equivalents and investments of \$4.2 million and \$57.7 million, respectively. For the year ended December 31, 2018, the Plan incurred approximately \$101,945 in management fees with this investment manager.

NOTE I. NET PENSION LIABILITY OF WSSC WATER

The components of the net pension liability of WSSC Water at December 31, 2019 and 2018 were as follows:

	2019	2018
Total Pension Liability Plan Fiduciary Net Position	\$980,962,150 (860,687,609)	\$968,212,704 (741,584,842)
WSSC Water's Net Pension Liability	\$120,274,541	\$226,627,862
Plan's Fiduciary Net Position as a Percentage of the Total Pension Liability	87.7%	76.6%

Actuarial assumptions

The total pension liability was determined by an actuarial valuation as of July 1, 2019, using the following actuarial assumptions, applied to all periods included in the measurement:

	2019	2018		
Inflation	2.50%	2.50%		
Salary increases	2.75% to 7.50%	2.75% to 7.50%		
Investment rate of return	7.00%	7.00%		

The mortality rates were based on the RP-2000 Healthy Annuitant Mortality Table for Males or Females, with Blue Collar adjustments and one-year age set-forward and projected to 2025 using Scale BB. The actuarial assumptions used in the July 1, 2019 valuation were based on the results of an actuarial experience analysis covering 2011 through 2015.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimates ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. This is then modified through a Monte-Carlo simulation process, by which a (downward) risk adjustment is applied to the baseline expected return. Best estimates of arithmetic real rates of return

NOTE I. NET PENSION LIABILITY OF WSSC WATER (Continued)

for each major asset class included in the pension plan's target asset allocation and the final investment return assumption are summarized in the following table:

	2019	Approximate Portfolio Allocation
Asset class:	_	
U.S. Equity	5.85%	40%
Non-U.S. Equity	6.00%	25%
U.S. Fixed Income	1.65%	30%
Real Estate	4.45%	5%
Total Weighted Average Real Return	4.56%	100%
Plus Inflation	2.50%	
Total Return without Adjustment	7.06%	
Risk Adjustment	-0.06%	
Total Expected Return	7.00%	

Discount Rate

The discount rate used to measure the total pension liability was 7.00% as of December 2019 and 2018. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that Commission contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate.

Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

NOTE I. NET PENSION LIABILITY OF WSSC WATER (Continued)

Other Key Actuarial Assumptions

The other key actuarial assumptions that determined the total pension liability as of December 31, 2019 and 2018 included:

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

Valuation date	July 1, 2019	July 1, 2018
Measurement date	December 31, 2019	December 31, 2018
Inflation	2.50%	2.50%
Salary increased including inflation	2.75% to 7.50%	2.75% to 7.50%

The following presents the net pension liability of the Plan, calculated using the discount rate of 7.00% for 2019 and 2018, as well as what the Plan's net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower or 1 percentage point higher than the current rate.

				2019		
	1	% Decrease 6.00%	D	Current iscount Rate 7.00%	1	% Increase 8.00%
Net pension liability (2019)	\$	230,367,731	\$	120,274,541	\$	27,148,285
				2018		
		01.5	_	Current		2.4
	1	% Decrease 6.00%	D	iscount Rate 7.00%	1	% Increase 8.00%
Net pension liability (2018)	\$	335,193,628	\$	226,627,862	\$	134,790,772

NOTE I. NET PENSION LIABILITY OF WSSC WATER (Continued)

The Plan's change in total pension liability, plan fiduciary net position and net pension liability are presented below:

	Т	Cotal Pension Liability	lan Fiduciary Net Position	Net Pension Liability
Balance as of December 2017	\$	936,361,482	\$ 833,825,358	\$ 102,536,124
Service cost		11,557,550	-	11,557,550
Interest on total pension liability		65,379,327	-	65,379,327
Difference between expected and actual experience		16,447,791	-	16,447,791
Benefit payments, including refunds of contributions		(61,533,446)	(61,533,446)	-
Employer contributions		-	25,479,895	(25,479,895)
Member contributions		-	4,150,303	(4,150,303)
Investment income net of investment expenses			 (60,337,268)	60,337,268
Net Change		31,851,222	(92,240,516)	124,091,738
Balance as of December 2018		968,212,704	741,584,842	226,627,862
Service cost		11,958,124	-	11,958,124
Interest on total pension liability		66,286,257	-	66,286,257
Difference between expected and actual experience		(1,762,139)	-	(1,762,139)
Benefit payments, including refunds of contributions		(63,732,796)	(63,732,796)	-
Administrative expenses			(438,993)	438,993
Employer contributions		-	26,524,110	(26,524,110)
Member contributions		-	4,945,638	(4,945,638)
Investment income net of investment expenses			151,804,808	(151,804,808)
Net Change		12,749,446	119,102,767	(106,353,321)
Balance as of December 2019	\$	980,962,150	\$ 860,687,609	\$ 120,274,541

NOTE J. SUBSEQUENT EVENTS

Subsequent to year-end, the World Health Organization declared the spread of Coronavirus Disease (COVID-19) a worldwide pandemic. The COVID-19 pandemic is having significant effects on global markets, supply chains, businesses, and communities including the Washington Suburban Sanitary Commission Employees' Retirement Plan. Specific to the Plan, COVID-19 may impact various 2020 operations and financial results including, but not limited to, decreased investment market values and lost investment earnings revenue. To the extent possible, management and the Board of Trustees are taking action to mitigate the negative impact.

However, the full impact of COVID-19 is unknown and cannot be reasonably estimated as these events occurred subsequent to year end and are still developing. During the period from January 1, 2020 through August 7, 2020 both domestic and international equity markets have experienced significant fluctuations. Any potential losses are not reflected in the financial statements as of and for the year ended December 31, 2019 as these events occurred subsequent to year end and are still developing.

REQUIRED SUPPLEMENTARY INFORMATION

WASHINGTON SUBURBAN SANITARY COMMISSION EMPLOYEES' RETIREMENT PLAN REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED) SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

	2019	2018	2017	2016	2015	2014	2010 - 20
Total Pension Liability:							
Service cost	\$ 11,958,124	\$ 11,557,550	\$ 10,744,774	\$ 10,576,413	\$ 9,828,010	\$ 11,098,519	
Interest on total pension liability	66,286,257	65,379,327	63,199,824	61,935,402	61,611,259	67,317,785	
Difference between expected and actual experience	(1,762,139)	16,447,791	3,474,382	(10,448,960)	(53,390,196)	(8,657,936)	
Effect of assumption changes or inputs	-	-	-	-	32,257,956	-	
Benefit payments, including refunds of contributions	(63,732,796)	(61,533,446)	(58,642,039)	(57,554,539)	(56,672,851)	(54,934,361)	
Net change in pension liability	12,749,446	31,851,222	18,776,941	4,508,316	(6,365,822)	14,824,007	
Total pension liability, beginning of the year	968,212,704	936,361,482	917,584,541	913,076,225	919,442,047	904,618,040	
Total pension liability, end of year (a)	980,962,150	968,212,704	936,361,482	917,584,541	913,076,225	919,442,047	
Plan Fiduciary Net Pension:							
Employer contributions	26,524,110	25,479,895	24,193,214	22,606,529	22,346,849	20,965,016	
Member contributions	4,945,638	4,150,303	5,290,757	4,213,793	3,930,364	3,823,065	
Investment income net of investment expenses	151,804,808	(60,337,268)	118,185,475	61,943,796	(10,371,883)	37,575,770	
Benefit payments	(63,732,796)	(61,533,446)	(58,642,039)	(57,554,539)	(56,672,851)	(54,934,361)	
*Administrtative expenses	(438,993)	-	-	-	-	-	
Other				(91,655)			
Net change in plan fiduciary position	119,102,767	(92,240,516)	89,027,407	31,117,924	(40,767,521)	7,429,490	
Plan Fiduciary Net Position - Beginning of the Year	741,584,842	833,825,358	744,797,951	713,680,027	754,447,548	747,018,058	
Plan Fiduciary Net Position - End of Year (b)	860,687,609	741,584,842	833,825,358	744,797,951	713,680,027	754,447,548	
Net Pension Liability - Beginning of Year	226,627,862	102,536,124	172,786,590	199,396,198	164,994,499	157,599,982	
Net Pension Liability - End of Year (a-b)	\$ 120,274,541	\$ 226,627,862	\$ 102,536,124	\$ 172,786,590	\$ 199,396,198	\$ 164,994,499	
Plan Fiduciary Net Position as a percentage of Total							
Pension Liability	87.7%	76.6%	89.0%	81.2%	78.2%	82.1%	
Covered Payroll	\$ 156,947,396	\$ 150,768,609	\$ 143,155,101	\$ 133,766,444	\$ 132,229,882	\$ 124,053,349	
Net Pension Liability as a percentage of Covered Payroll	76.6%	150.3%	71.6%	129.2%	150.8%	133.0%	
Average Future Working Lifetime (years)	6	6	6	6	6	9	

^{*}Administrative expenses are paid directly by WSSC Water and may be reimbursed by the Plan.

Notes to Schedule of Changes in Net Pension Liability and Related Ratios:

Benefit changes – There have been no changes in benefit assumptions since the implementation of GASB 67 and 68.

Changes in assumptions – There were no changes in actuarial assumptions since the prior year.

^{**}This schedule is presented to illustrate the requirement to show information for 10 years. The Plan presents information for available years and additional years will be displayed as they become available.

WASHINGTON SUBURBAN SANITARY COMMISSION EMPLOYEES' RETIREMENT PLAN REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED) SCHEDULE OF EMPLOYER CONTRIBUTIONS

Year Ended December 31,	Actuarially Determined Contribution		Actual Employer Contribution		Contribution Deficiency (Excess)		Covered Payroll		Contribution as a % of Covered Payroll
2010	\$	12,201,033	\$	18,224,804	\$	(6,023,771)	\$	107,839,077	16.9%
2011		26,295,382		18,686,402		7,608,980		110,570,426	16.9%
2012		22,757,807		19,038,875		3,718,932		112,656,065	16.9%
2013		22,739,819		20,498,919		2,240,900		121,295,379	16.9%
2014		25,745,448		20,965,016		4,780,432		124,053,349	16.9%
2015		20,100,358		22,346,850		(2,246,492)		132,229,882	16.9%
2016		18,393,733		22,606,529		(4,212,796)		133,766,444	16.9%
2017		18,591,764		24,193,212		(5,601,448)		143,155,101	16.9%
2018		18,232,265		25,479,895		(7,247,630)		150,768,609	16.9%
2019		21,183,914		26,524,110		(5,340,196)		156,947,396	16.9%

Notes to Schedule of Contributions:

Valuation date:

Actuarially determined contribution rates are calculated as of July 1st of the fiscal year in which the contributions are reported. WSSC Water's policy is to complete an actuarial study at least once every two years.

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Entry age normal (funding valuation uses a fixed rate of contribution)				
Inflation	2.50%				
Salary increases	2.75 to 7.50 % including inflation				
Investment rate of return	7.0% net of pension plan investment expenses, including inflation				
Cost of living adjustments	2.50%				
Retirement age	Table of rates by age and eligibility				
Mortality	Mortality rates were based on the RP-2000 Healthy Annuitant Mortality Table for Males or Females, with Blue Collar adjustments and one-year age set-forward and projected to 2025 using Scale BB. The actuarial assumptions used in the July 1, 2019 valuation were based on the results of an actuarial experience analysis covering 2011 through 2015.				

WASHINGTON SUBURBAN SANITARY COMMISSION EMPLOYEES' RETIREMENT PLAN REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED) SCHEDULE OF INVESTMENT RETURNS

	Net Money-weighted				
Year Ended December 31,	Rate of Return (%)				
2010	14.2				
2011	(2.5)				
2012	14.1				
2013	17.3				
2014	5.2				
2015	(1.4)				
2016	9.5				
2017	16.2				
2018	(7.4)				
2019	20.9				

This schedule is presented to illustrate the requirement to show information for 10 years.