

GOVERNMENT OF GUAM RETIREMENT FUND

FINANCIAL STATEMENTS

September 30, 2018 and 2017

(Together with Independent Auditors' Report Thereon)

GOVERNMENT OF GUAM RETIREMENT FUND

September 30, 2018 and 2017

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INDEPENDENT AUDITORS' REPORT

To the Board of Trustees
Government of Guam Retirement Fund:

Report on the Financial Statements

We have audited the accompanying financial statements of the Government of Guam Retirement Fund (the "Fund"), a component unit of the Government of Guam, administered by the Government of Guam Retirement Fund Board of Trustees (the "Board") which comprise the statement of plan net position and statement of changes in plan net position as of and for the year ended September 30, 2018, and the related notes to the 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.

Auditor's Responsibility

Our responsibility is to express an opinion 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 auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

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

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Government of Guam Retirement Fund as of September 30, 2018, and the changes in financial position for the year 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 on pages 4 through 24, the Schedule of Changes in Net Pension Liability on pages 63 and 64, the Schedule of Net Pension Liability by Component Unit on pages 65 and 66, the Schedule of Contributions on page 67, the Schedule of Investment Returns on page 68, the Schedule of Changes in Total Other Post Employment Benefits (OPEB) Liability on page 69, the Schedule of Other Post Employment Benefits (OPEB) Liability on page 70, and the Schedule of Employer Contributions (OPEB) on page 71 be presented to supplement the 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 Financial Information

Our audit was conducted for the purpose of forming an opinion on the financial statements as a whole. The accompanying information listed as supplemental schedules on pages 72 to 77 is presented for purposes of additional analysis and is not a required part of the basic financial statements.

The schedules on pages 72 to 77 are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the financial statements.

Such information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedules on pages 72 to 77 are fairly stated in all material respects in relation to the financial statements as a whole.

The schedule on page 78 presents information about the Government of Guam Deferred Compensation Plan. This information is not a required part of the financial statements and is not included in the financial statements. The assets of this plan belong solely to the plan participants, and they are fully vested in such assets. We have not audited this information and we do not express an opinion or provide any assurance on the information.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated February 27, 2019, on our consideration of the Government of Guam Retirement Fund'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 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 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 Government of Guam Retirement Fund's internal control over financial reporting and compliance.



Tamuning, Guam
February 27, 2019

GOVERNMENT OF GUAM RETIREMENT FUND

Management's Discussion and Analysis

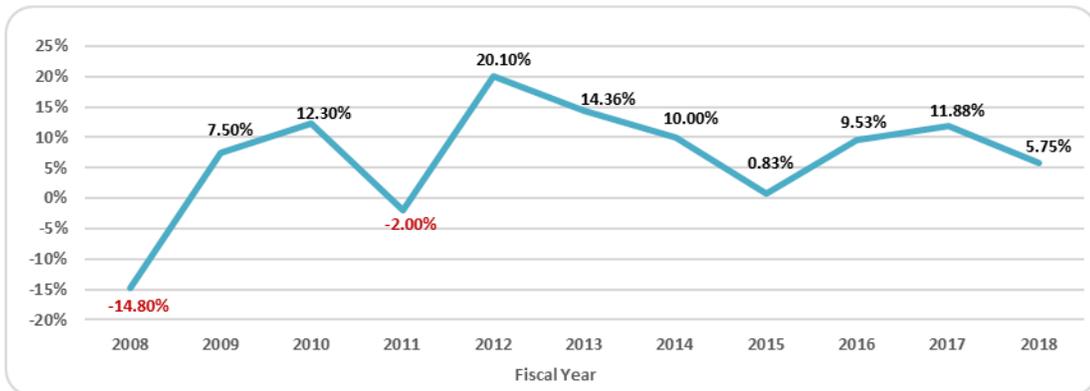
September 30, 2018

Management of the Government of Guam Retirement Fund (“GGRF”) offers readers of the financial statements the following discussion and analysis of GGRF’s financial activities for the fiscal year ended September 30, 2018. This narrative should be reviewed in conjunction with the financial statements and related notes, which follow this section. It provides management’s insight into the results of operations of the last two fiscal years, and highlights specific factors that contributed to those results.

(1) Financial Highlights

For 2018, **DC Plan** investments totaled \$347M compared to \$534M in 2017.

For 2018, the **DB Plan** investment portfolio posted a positive return of 5.75%, compared to 2017’s return of 11.88%.



GGRF investment returns averaged 8.37% percent from 1995 through 2018. Over that period, there have been three years with negative returns, all of which occurred in the last sixteen years.

GOVERNMENT OF GUAM RETIREMENT FUND

Management's Discussion and Analysis, continued

September 30, 2018

(1) Financial Highlights, continued

- **Critical Issue – Impact of Market Volatility on the DB Plan Unfunded Liability**

The unfunded liability is the present value of future benefits payable that are not covered by the actuarial value of assets as of the valuation date. The unfunded liability increased from \$1.25 billion (based on the 2016 actuarial valuation) to \$1.27 billion (based on the 2017 actuarial valuation), and the actuarially determined contribution rate decreased from 27.83% to 26.56%.

The primary reason for the decrease in the contribution rate was the 1.0% reduction in total payroll, versus the assumption of a 3.0% increase in total payroll. There was also a slight increase in the contribution rate due to the net recognition of investment gains and losses over the last three years. These increases were partially offset by some actuarial gains due to demographic experience that differed from the actuarial assumptions, and due to assumption changes adopted from the 2011 to 2015 experience study.

The defined benefit payroll for the 2016-17 fiscal year was \$131.5 million compared with \$141.3 million for the 2015-16 fiscal year. The total defined benefit and defined contribution payroll for the 2016-17 fiscal year was \$508.3 million compared with \$506.3 million for the 2015-16 fiscal year, an increase of 0.4%.

As noted in prior year reports, underfunding of the DB Plan continues to be an ongoing concern. The unfunded liability has grown from \$552 million at September 30, 1995 to \$1.27 billion at September 30, 2017. This represents a decrease in the security ratio, from 66.5% in 1997 to 60.2% in 2017, and an increase in the unfunded liability ratio from 33.5% in 1995 to 39.8% in 2017. However, the security ratio has consistently risen in the last six years, from 43.49% in 2011 to 60.2% in 2017. The security ratio is the ratio of assets to liabilities.

GOVERNMENT OF GUAM RETIREMENT FUND

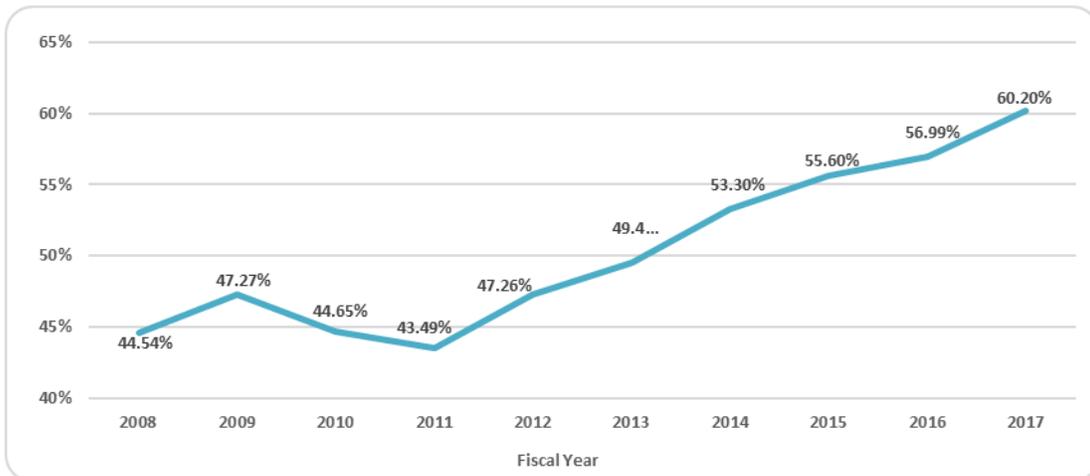
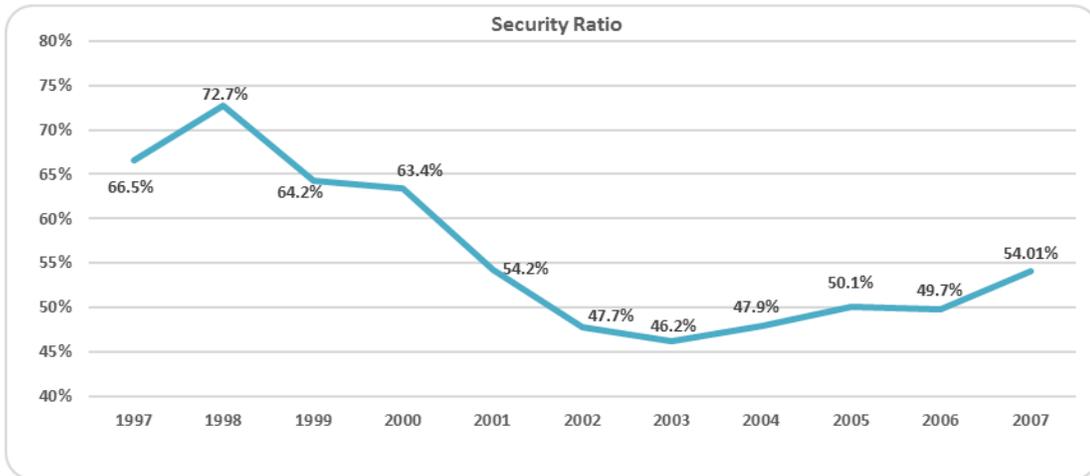
Management's Discussion and Analysis, continued

September 30, 2018

(1) Financial Highlights, continued

- **Critical Issue – Impact of Market Volatility on the DB Plan Unfunded Liability, Continued**

As indicated below, the **security ratio** (fund assets as a percentage of accrued liability) for the past twenty-three years has ranged from 43.49% to 72.7%, representing an average of 51.32% per year.



According to our actuary Milliman Inc., security ratios for public pension funds vary depending upon the assumed rate of future investment returns as well as the period over which investment gains and losses are recognized. In addition, security ratios for public pension plans in the U.S. tend to be between 60% to 90%, with many concentrated around 70%. GGRF has a lower security ratio than most U.S. funds.

GOVERNMENT OF GUAM RETIREMENT FUND

Management’s Discussion and Analysis, continued

September 30, 2018

(1) Financial Highlights, continued

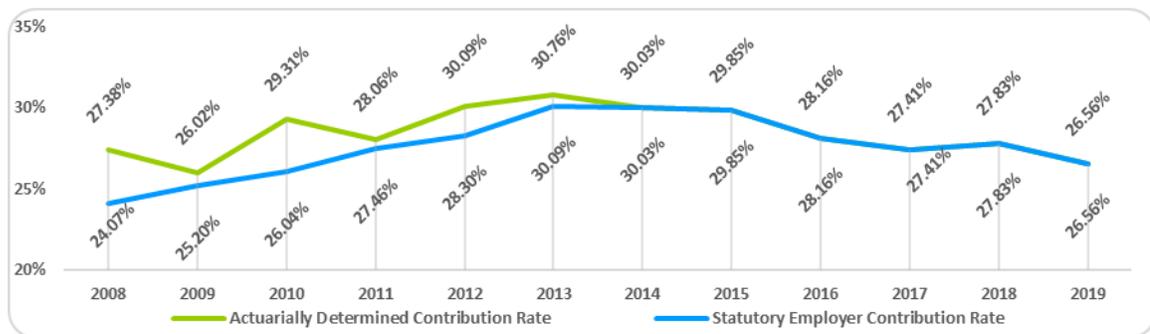
- **Critical Issue – Impact of Market Volatility on the DB Plan Unfunded Liability, Continued**

Pursuant to 4 GCA Chapter 8, Section 8137, the unfunded liability is to be completely funded within 80 years from May 1, 1951. Based on the 2017 valuation, there are 15.58 years remaining in the funding period. As stated in prior years’ Management’s Discussion and Analysis (MD&A), “the unfunded liability is now so large that it simply cannot be ignored or put off for future generations to contend with. The longer the Government of Guam (“GovGuam”) defers its obligation to provide full funding, the worse the problem becomes”.

Management continues to recommend that the Guam Legislature fully fund the actuarially determined contribution rate each year. The uncertainties in the investment markets, and the years remaining in the funding period underscores the need for the Guam Legislature to fully recognize the magnitude of the problem and provide full funding each year.

According to Milliman Inc., employer contribution rates vary widely among public pension funds due to the level of benefits provided, the security ratio (funded percentage), the assumed rate of future investment returns, and the period of time over which unfunded liabilities are amortized. In addition, typical employer contribution rates range from 12.5% to 35% or more. GGRF’s contribution rate is at the high end of the range, due to a lower security ratio (funded percentage) than most other funds.

A comparison of the actuarially determined contribution rates versus the statutory employer contribution rates for 2007 to 2019 are reflected below.



Pursuant to 4GCA Chapter 8, Section 8137, if future contributions equal the actuarially determined contribution rate, and plan investments earn 7% each year, the DB Plan is expected to become fully funded in 2031. The Guam Legislature’s efforts toward full funding since 2007 have definitely narrowed the gap between the statutory and actuarially determined contribution rate. The increase in the gap from .82% in 2009 to 3.27% in 2010 is due largely to the negative return of 14.8% in 2008. For 2014 to 2019, the statutory rate is equal to the actuarially determined contribution rate. Management encourages the Guam Legislature to continue to set the statutory rate at the actuarially determined contribution rate until full funding is achieved.

GOVERNMENT OF GUAM RETIREMENT FUND

Management's Discussion and Analysis, continued

September 30, 2018

(1) Financial Highlights, continued

• Critical Issue – Enhancing the Retirement Benefits of DC Plan Employees, continued

Update – 2017 Audit

Public Law 33-186 thereby:

1. Created as alternatives to the DC Plan, a new “Defined Benefit 1.75” retirement system “(DB 1.75”); and “Guam Retirement Security Plan”, a cash balance plan (“GRSP”).
2. Increased the DC Plan member and employer contributions from five percent (5%) to six and two-tenths percent (6.2%), effective January 1, 2018.
3. Extends the period used to amortize the unfunded actuarial accrued liability (UAAL) of GGRF by two years, from an end date of May 1, 2031 to an end date of May 1, 2033, effective January 1, 2018.
4. Provides that the GRSP will be the default plan effective January 1, 2018, with an option to transfer to the DC Plan within 60 days from their date of hire.
5. Provides that if the Government of Guam is authorized to extend Social Security coverage to Government of Guam employees on a prospective basis, then all employees hired on or after the effective date shall be enrolled into Social Security.

DB 1.75 Plan:

DB 1.75 Plan members are required to contribute 9.5% of their base salary to the DB 1.75 Plan and 1% of base salary to the 457 Plan, and are fully vested for benefits upon attaining five (5) years of credited service. Members may retire with full benefits at age 62 and 5 years of credited service, or at age 55 with 25 years of credited service with reduced benefits, or at age 60 and 5 years of credited service without survivor benefits.

Plan Documents:

On February 27, 2017, the draft Plan Documents for the Defined Benefit 1.75 (DB 1.75) Plan, Guam Retirement Security Plan (GRSP), Defined Contribution Retirement System (DCRS or DC Plan), and 457 Deferred Compensation (457) Plan were approved by the Board of Trustees, and adjudicated on March 14, 2017. The finalized Plan Documents were transmitted to the Legislature on March 31, 2017, and accepted by the Legislature during their June 2017 session.

GOVERNMENT OF GUAM RETIREMENT FUND

Management's Discussion and Analysis, continued

September 30, 2018

(1) Financial Highlights, continued

- **Critical Issue – Enhancing the Retirement Benefits of DC Plan Employees, continued**

Education:

In March 2017, a team was established to produce and communicate the educational materials. GGRF provided at least one (1) on-site seminar at all Government of Guam departments and agencies, and multiple sessions at GGRF, for a total of 143 seminars. As the schedule permitted, GGRF continued to provide educational seminars at GGRF for new employees. The educational video presented during the department/agency and GGRF seminars was also available on the GGRF website. The education seminars concluded on August 14, 2017. However, the video remained on the website until January 31, 2018.

Election Period:

The election to participate in the DB 1.75 Plan was for a limited time period.

- Commencing April 1, 2017, eligible employees in the DC Plan had the opportunity to voluntarily elect to transfer to the DB 1.75 Plan or the GRSP.
- The conclusion of the election period - contingent on the member's employment or re-employment date - was on September 30, 2017, October 31, 2017, December 31, 2017, January 31, 2018, or 30 days from the member's re-employment date.

Comparison Letters:

Prior to making an election, DC Plan members were given the opportunity to request and review: (a) a comparison illustrating the member's estimated (1) required bi-weekly contributions under each plan, (2) monthly retirement income under each plan, and (3) cost to transfer to the DB 1.75 Plan; and (b) copies of the Plan Documents and Summary Plan Descriptions for each Plan, effective as of January 1, 2018.

During the election period, GGRF management and staff reviewed members' contribution and distribution data, performed calculations and composed retirement income comparisons to assist members in making a potential Election with respect to their future plan participation. The estimates were based on assumptions with respect to the member's age, salary, years of credited service, and account balance under the DC Plan, using information as of March 31, 2017.

Elections to Transfer:

As of the December 31, 2017 deadline for participants to elect to transfer to the DB1.75 Plan or GRSP, approximately three thousand three hundred seventy-nine (3,379) of the approximately eight thousand nine hundred forty-seven (8,947) DC Plan participants, elected to transfer to the DB 1.75 Plan. Only six (6) participants elected to participate in the GRSP.

GOVERNMENT OF GUAM RETIREMENT FUND

Management's Discussion and Analysis, continued

September 30, 2018

(1) Financial Highlights, continued

• Critical Issue – Enhancing the Retirement Benefits of DC Plan Employees, continued

GRSP:

Given the level of GRSP assets expected to fund administrative costs and potential benefit obligations, the Board of Trustees:

- Determined that it is reasonable to expect that there could be a shortfall of GRSP assets to cover GRSP liability, but with no designated funding source.
- Agreed that implementation of the GRSP remained subject to the timely enactment of appropriate legislation to comply with IRC requirements applicable to governmental plans; and compliance with the “Lamorena Order”.
- Determined that pending enactment of such legislation, the implementation of the GRSP would violate the Code and the Lamorena Order.
- GGRF notified the six (6) DCRS participants who elected to transfer to the GRSP that the implementation of the GRSP is uncertain and remains subject to the enactment of appropriate legislation to comply with IRC requirements and the Lamorena Order. As a result, the six (6) participants were allowed to evaluate their options and change their elections by November 30, 2017.

Default Plan:

To ensure that eligible Government of Guam new employees were enrolled in a retirement plan on or after January 1, 2018, the GGRF Board of Trustees determined the DCRS is appropriate to serve as a default plan until such time as the GRSP can be properly implemented.

DC Plan Funds Transferred to DB 1.75 Plan:

On January 23, 2018, the DC Plan funds of employees who elected to transfer to the DB 1.75 Plan, totaling approximately \$229 million, were deposited into GGRF's Northern Trust Administrative Account, and allocated to GGRF's managers/cash account based on the asset reallocation.

GOVERNMENT OF GUAM RETIREMENT FUND

Management's Discussion and Analysis, continued

September 30, 2018

(1) Financial Highlights, continued

- **Implementation of Governmental Accounting Standards Board (GASB) Statement No. 73.**

Due to the implementation of GASB Statement No. 73, in 2017 a prior year adjustment was made to include COLA and Supplemental Payments in net pension liability.

The Government of Guam and all component units must present pension information related to supplemental benefits and cost of living allowances (COLA). These benefits are not funded through the accumulation of assets purchased with employer or member contributions; rather, they are funded by Legislative appropriations with the General Fund as funding source. The supplemental benefit is an amount which, when added to a retiree's annuity, increases the annual annuity to Forty Thousand Dollars (\$40,000). This supplemental annuity only applies to retirees who retired under the defined benefit plan. The COLA payment has increased from an annual amount of \$1,800 in fiscal year 2014 to \$2,000 per retiree starting in fiscal year 2015. The COLA benefit applies to both defined benefit retirees and defined contribution retirees.

As of September 30, 2018 and 2017, GGRF has recorded net pension liability of \$5,281,342 and \$5,450,291, respectively.

- **Implementation of Governmental Accounting Standards Board (GASB) Statement No. 74.**

Due to the implementation of GASB Statement No. 74, a prior year adjustment was made to include postemployment medical, dental, and life insurance benefits of retirees, spouses, children, and survivors in net pension liability.

The Government of Guam contributes a portion of the medical and dental premiums, based on a schedule of semi-monthly rates, and reimburses certain Medicare premiums to eligible retirees. Retirees are also required to pay a portion of the medical and dental insurance premiums. Retirees and surviving spouses do not share in the cost of the basic life insurance benefit. This benefit applies to both defined benefit retirees and defined contribution retirees.

As of September 30, 2018 and 2017, GGRF has recorded net OPEB liability of \$11,237,415 and \$11,891,310, respectively.

(2) Description of the Financial Statements

This section of the MD&A is intended to serve as an introduction to the GGRF financial statements, which include the following components:

1. Basic Financial Statements,
2. Notes to the Basic Financial Statements,
3. Required Supplementary Information,
4. Other Supplementary Schedules.

GOVERNMENT OF GUAM RETIREMENT FUND

Management's Discussion and Analysis, continued

September 30, 2018

(2) Description of the Financial Statements, continued

Collectively, this information presents the net position held in trust for pension benefits. This financial position also summarizes the changes in net position held in trust for pension benefits for the year then ended. The information in these components is briefly summarized as follows:

- **Basic Financial Statements**

The Fiduciary Net Position is presented for September 30, 2018, with comparative information at September 30, 2017 and 2016. These financial statements reflect resources available to pay benefits to members, including retirees and beneficiaries, at the end of the years reported. The Statement of Changes in Fiduciary Net Position is presented for the year ended September 30, 2018, with comparative information for the years ended September 30, 2017 and 2016. These financial statements reflect the changes in resources available to pay benefits to members, including retirees and beneficiaries, for fiscal years 2018, 2017 and 2016.

- **Notes to the Basic Financial Statements**

The Notes to the Basic Financial Statements provide additional information that is essential to a full understanding of the data provided in the basic financial statements. Information in the Notes to the Basic Financial Statements includes the following: a general description of GGRF, a summary of significant accounting policies, a description of deposit and investment risk, an explanation of property and equipment, information about net pension liability of the Agencies and information about pension plan participation.

- **Required Supplementary Information**

The Required Supplementary Information consists of the following schedules: changes in net pension liability, net pension liability by agency, employer contributions, and the annual money-weighted rate of return, net of investment expense.

- **Other Supplementary Schedules**

Other schedules include schedules of administrative and general expenses, personnel costs, personnel count, receivables by GovGuam Agency, and other receivables.

(3) Defined Benefit Plan

The DB Plan provides for retirement, disability, and survivor benefits to members of the Plan prior to October 1, 1995. All new employees whose employment commences on or after October 1, 1995 are required to participate in the DC Plan.

GOVERNMENT OF GUAM RETIREMENT FUND

Management's Discussion and Analysis, continued

September 30, 2018

(3) Defined Benefit Plan, continued

DB Plan Net Position as of September 30, 2018, 2017 and 2016 are as follows:

	2018	2017	2016	Increase (Decrease) From 2017 to 2018	
				\$	%
Cash and Equivalents	4,803,854	2,865,211	4,061,906	1,938,643	67.7%
Receivables	46,480,374	45,444,762	78,063,880	1,035,612	2.3%
Investments	2,011,346,795	1,746,881,829	1,640,301,969	264,464,966	15.1%
Prepaid expenses	6,415	12,116	3,090	(5,701)	-47.1%
Property and Equipment	651,708	728,973	805,458	(77,265)	-10.6%
Deferred Outflows	1,471,110	383,152	538,866	1,087,958	283.9%
Total Assets	2,064,760,256	1,796,316,043	1,723,775,169	268,444,213	14.9%
Total Liabilities	27,006,733	15,743,326	47,951,200	11,263,407	71.5%
Deferred Inflows	4,875,248	795,868	705,023	4,079,380	512.6%
Net Assets, End of Year	2,032,878,275	1,779,776,849	1,675,118,946	253,101,426	14.2%
Net Assets, Beginning of Year	1,768,849,322	1,673,929,845	1,610,567,912		
Transfers from DC	229,076,137	-	-		
Net Increase (Decrease) in Net Position	34,952,816	105,847,004	64,551,034		

During 2018, DB Plan net position increased by \$32.3 million or 3% from the prior year. DB Plan investments increased by \$264.5 million ending the year at \$2 billion.

As of September 30, 2018, the supplemental/COLA benefits advanced receivable totaled approximately \$20.3 million. Over \$130 million in supplemental/COLA benefits were advanced to GovGuam by GGRF in the late 1990s. During 2018 and 2017, the outstanding balance of the supplemental/COLA benefits advanced was reduced by 1.2016% of the employer contributions of covered payroll. These receivables are being collected by GGRF over a twenty year period, without interest. Had these funds remained with GGRF's investment managers, they would have grown substantially.

DB Plan Investments as of September 30, 2018, 2017 and 2016 are as follows:

	2018	2017	2016	Increase (Decrease) From 2016 to 2017	
				\$	%
Common Stocks	1,363,025,724	1,110,502,896	956,950,473	252,522,828	22.7%
U.S. Government Securities	207,209,221	232,829,593	246,567,269	-25,620,372	-11.0%
Corporate Bonds and Notes	341,684,213	303,153,981	295,367,509	38,530,232	12.7%
Money Market Funds	26,130,425	23,864,447	40,801,515	2,265,978	9.5%
Mutual Funds	73,297,212	76,530,912	100,615,203	-3,233,700	-4.2%
Total	2,011,346,795	1,746,881,829	1,640,301,969	264,464,966	15.1%

The DB Plan investments provide for long-term growth, while also ensuring a reliable cash flow that meets current pension benefit payments. Equity investments are included for their long-term return and growth characteristics, while fixed income assets control investment risk.

GOVERNMENT OF GUAM RETIREMENT FUND

Management's Discussion and Analysis, continued

September 30, 2018

(3) Defined Benefit Plan, continued

In line with the Board's long-term goal of achieving, at a minimum, a 7.0% rate of return, investments are allocated amongst various asset classes. Each asset class reacts differently under the same market conditions. Often when one asset class has strong returns, another will have lower or even negative returns. This diversification of investments across a number of asset classes ensures a better return under a range of market conditions, while lowering the overall portfolio risk.

GGRF's target allocation versus the market allocation as of September 30, 2018, is as follows:

	Target Allocation	Market Allocation	Over/(Under)
Domestic Large Cap Equity	29.0%	31.30%	2.30%
Domestic Small Cap Equity	7.0%	7.20%	0.20%
International Developed Markets	12.5%	12.20%	-0.30%
International Small Cap	4.0%	3.70%	-0.30%
International Emerging Markets	2.0%	1.90%	-0.10%
Fixed Income Aggregate	21.5%	20.20%	-1.30%
Global Real Estate (REITs)	5.0%	4.80%	-0.20%
Risk Parity	8.0%	8.10%	0.10%
High Yield	8.0%	7.80%	-0.20%
Cash	0.0%	0.20%	0.20%
MLP	3.0%	2.60%	-0.40%
Total	100%	100%	0%

The table below shows portfolio returns and indices, which are reflective of the market environment for 2018 and 2017.

	2018	2017
Total Portfolio	5.75%	11.88%
Blended Index	6.91%	11.23%
Total Domestic Equity	15.87%	19.76%
Benchmark: S&P 500 Index	17.60%	19.05%
International Equity	0.66%	21.64%
Benchmark: MSCI EAFE	1.76%	20.01%
Total Fixed Income	0.01%	0.31%
Benchmark: Barclays Capital Aggregate	-1.22%	0.07%
High Yield	2.99%	8.76%
Barclays High Yield	3.05%	8.88%
Global REITs	5.21%	0.34%
Wilshire Global REIT	3.88%	0.85%
Risk Parity	2.37%	3.79%
	3.06%	2.61%

GOVERNMENT OF GUAM RETIREMENT FUND

Management's Discussion and Analysis, continued

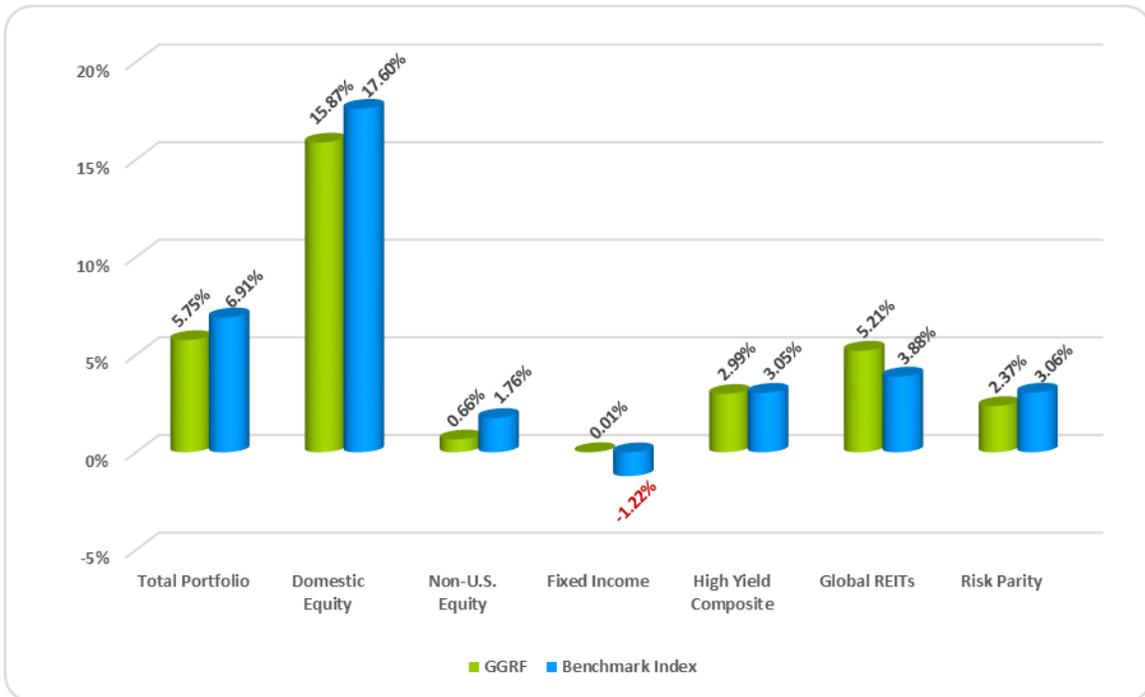
September 30, 2018

(3) Defined Benefit Plan, continued

Total Portfolio Return

For 2018, the total performance of the GGRF Portfolio 5.75% underperformed the benchmark index with a return of 6.91%. The GGRF Portfolio ranked at the 48th percentile of Wilshire's peer group universe.

For 2018, the domestic equity, non-US equity, fixed income and risk parity mandates outperformed their respective benchmark indices. The following reflects the 2018 investment performance for the total portfolio and for each investment mandate.



GOVERNMENT OF GUAM RETIREMENT FUND

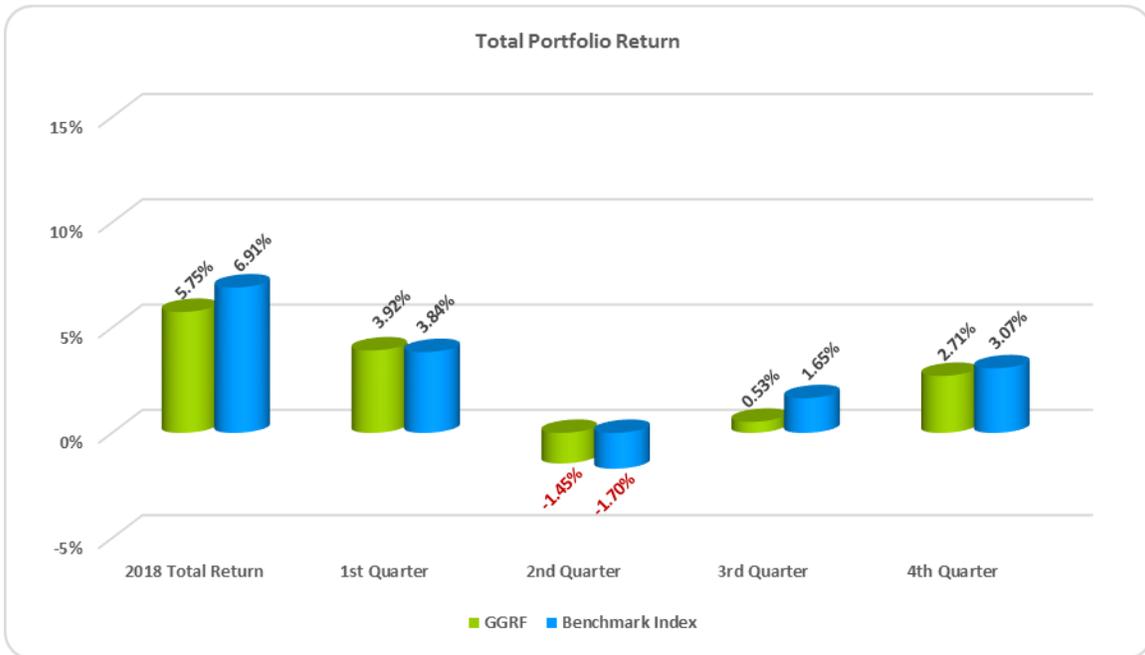
Management's Discussion and Analysis, continued

September 30, 2018

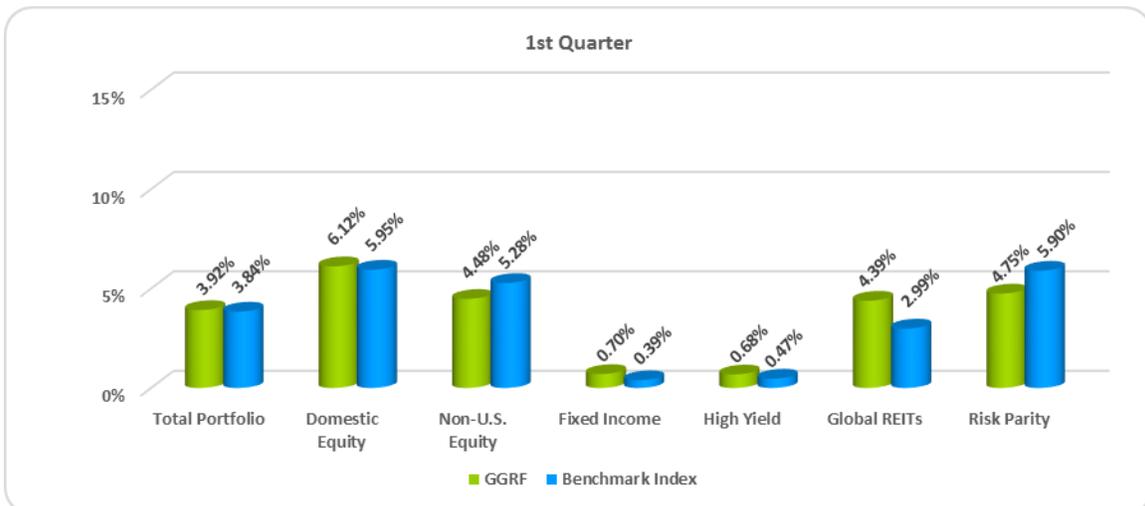
(3) Defined Benefit Plan, continued

2018 Portfolio Returns by Quarter

The following reflects the 2018 total and quarterly returns. The portfolio return for the second, third and fourth quarters were slightly below their respective benchmark indices.



- During the **first quarter** of 2018, the GGRF Portfolio outperformed its benchmark index, and ranked at the 20th percentile of Wilshire's peer group universe.



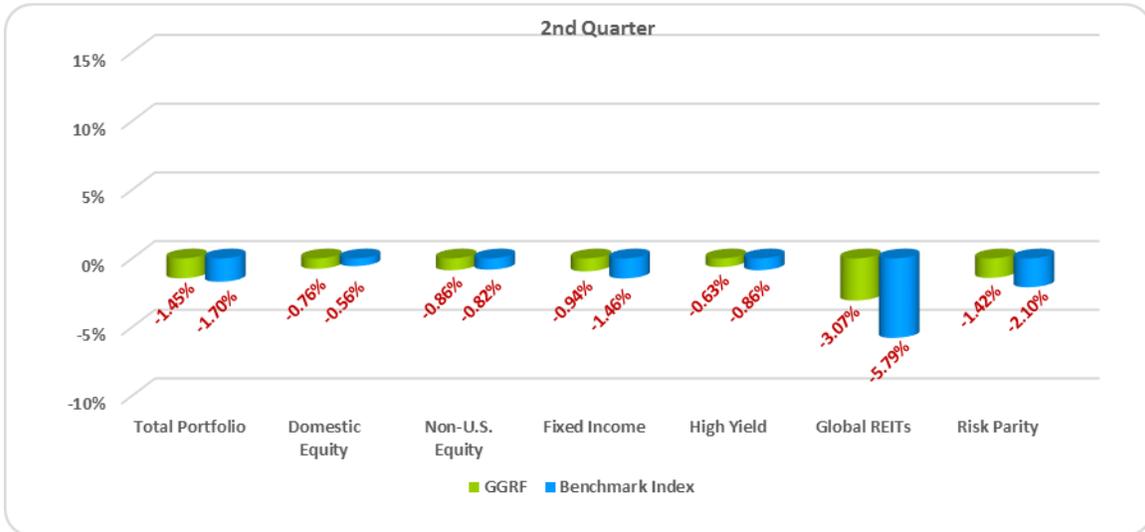
GOVERNMENT OF GUAM RETIREMENT FUND

Management's Discussion and Analysis, continued

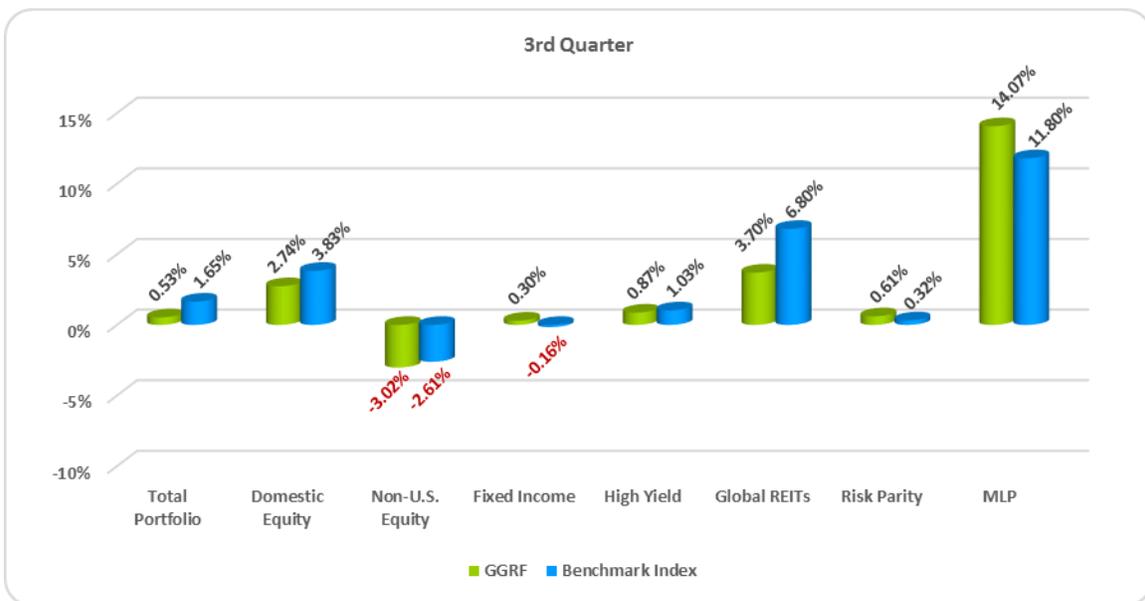
September 30, 2018

(3) Defined Benefit Plan, continued

- During the **second quarter**, the GGRF portfolio outperformed its benchmark ranking at the 45th percentile of Wilshire's peer group universe for the quarter.



- During the **third quarter**, the GGRF portfolio underperformed its benchmark index ranking at the 45th percentile of Wilshire's peer group universe for the quarter.



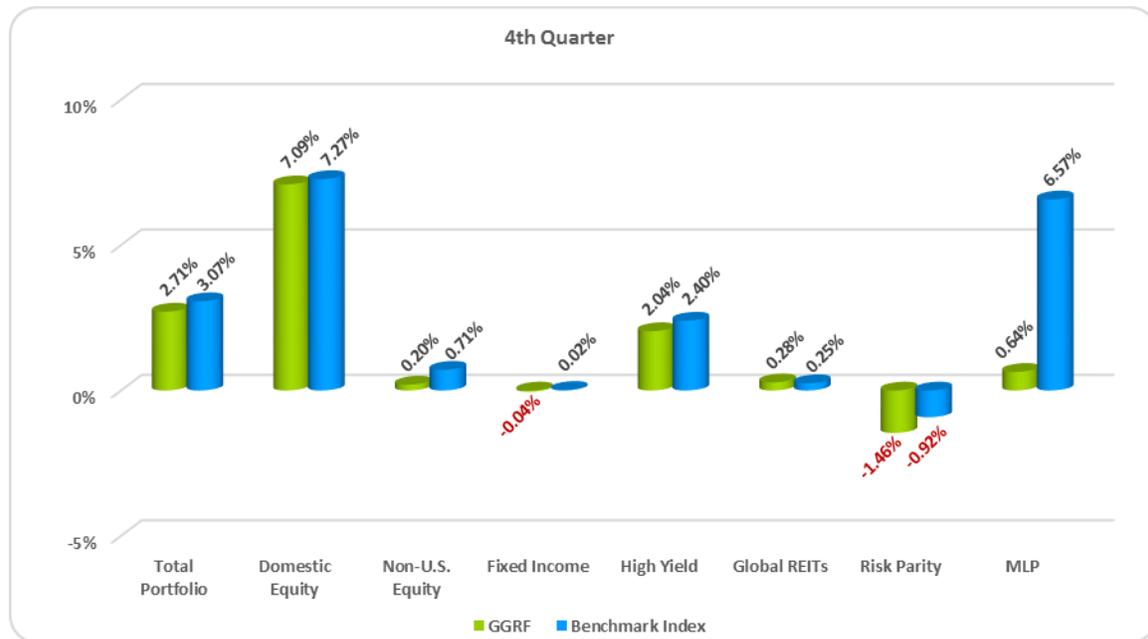
GOVERNMENT OF GUAM RETIREMENT FUND

Management's Discussion and Analysis, continued

September 30, 2018

(3) Defined Benefit Plan, continued

- During the **fourth quarter**, the GGRF portfolio underperformed the benchmark index ranking at the 48th percentile of Wilshire's peer group universe for the quarter.



Mitigating the Effects of Market Volatility through Diversification

GGRF's portfolio remains fully diversified across the different asset classes. A number of investment managers are utilized within each asset class, allowing the portfolio to achieve broad exposure to the market while minimizing overall risk. This broad diversification serves as the best defense against the uncertainty of volatile investment markets.

To mitigate other risks, the Board, with the guidance of GGRF's investment consultant, Wilshire Consulting consistently evaluates the relative performance of each mandate and individual managers, and rebalances the portfolio accordingly. Wilshire Associates Incorporated replaced Mercer Investment Consulting, Inc. in June of 2011.

GOVERNMENT OF GUAM RETIREMENT FUND

Management's Discussion and Analysis, continued

September 30, 2018

(3) Defined Benefit Plan, continued

Additions and Deductions to DB Plan Net Position for the years ended September 30, 2018, 2017 and 2016 are as follows:

	2018	2017	2016	Increase (Decrease) From 2017 to 2018	
				\$	%
Net Appreciation in Fair Value of Investments	70,558,548	161,667,955	107,455,032	(91,109,407)	-56.4%
Interest, Dividends & Other Investment Income	39,497,620	36,005,188	43,570,927	3,492,432	9.7%
Less Investment Expenses	5,574,493	4,907,570	4,790,928	666,923	13.6%
Net Investment Income	104,481,675	192,765,573	146,235,031	(88,283,898)	-45.8%
Employer Contributions	127,072,864	119,211,434	118,432,015	7,861,430	6.6%
Member Contributions	28,895,275	13,476,517	13,812,825	15,418,758	114.4%
Total Contributions	155,968,139	132,687,951	132,244,840	23,280,188	17.5%
Total Additions	260,449,814	325,453,524	278,479,871	(65,003,710)	-20.0%
Benefit Payments	219,043,804	213,745,250	207,497,350	5,298,554	2.5%
Refunds	1,793,906	1,113,513	2,035,400	680,393	61.1%
Interest on Refunds	516,037	831,859	1,284,833	(315,822)	-38.0%
Administrative Expenses	4,143,251	3,915,898	3,111,254	227,353	5.8%
Transfers to DC Plan	0	0	0	0	0.0%
Total Deductions	225,496,998	219,606,520	213,928,837	5,890,478	2.7%
Net Increase (Decrease) in Net Position	34,952,816	105,847,004	64,551,034		

Additions to DB Plan Net Position

During 2018, the net appreciation in fair value of investments decreased by \$91.1 M from the 2017 total, while interest, dividends and other investment income increased by \$3.5 M from the 2017 total.

GOVERNMENT OF GUAM RETIREMENT FUND

Management's Discussion and Analysis, continued

September 30, 2018

(3) Defined Benefit Plan, continued

Deductions to DB Plan Net Position

GGRF was created to provide retirement, survivor and disability benefits to qualified members and their beneficiaries. The cost of such programs includes recurring benefit payments, elective refunds of contributions to employees who terminate employment, and the cost of administering the Plan. For 2018, deductions totaled \$225 million, an increase of 2.5% over 2017.

Benefit payments to current retirees and their beneficiaries over the last two years averaged 97% of total deductions. For 2018, benefit payments increased by \$5.3 million or 2.48%, consisting of a \$4.6 million increase in age and service annuities, a \$1.0M increase in survivor annuities, and a \$300,000 decrease in disability annuities. Benefit payments for DB Plan retirees are not affected by the market downturn as they are based on a formula reflecting years of service and average annual salary. DB Plan investments, combined with future earnings and additional member and employer contributions, will be used to pay retirement benefits.

DB Plan membership as of September 30, 2018, 2017 and 2016 is as follows:

	2018	2017	2016	Increase (Decrease) From 2017 to 2018
Retirees and Beneficiaries				
Receiving Benefits	7,252	7,236	7,298	16
Terminated Members entitled to, but not yet Receiving Benefits	3,134	4,230	4,485	(1,096)
Active Plan Members-DB	1,845	2,067	2,234	(222)
Active Plan Members-DB 1.75	3,226	0	0	3,226
Total Membership	15,457	13,533	14,017	1,924

Liquidations

During 2018, \$72 million in investments were liquidated in order to meet benefit payment obligations, compared to \$82 million in 2017. The \$72M and \$82M included \$41M and \$37M of interest and dividend income, respectively. The decrease in 2018 liquidations is due largely to the implementation of the DB 1.75 plan effective January 1, 2018.

GOVERNMENT OF GUAM RETIREMENT FUND

Management's Discussion and Analysis, continued

September 30, 2018

(4) Defined Contribution Plan

The DC Plan was created by Public Law 23-42:3. All new employees whose employment commences on or after October 1, 1995 are required to participate in the DC Plan.

DC Plan Net Position as of September 30, 2018, 2017 and 2016 are as follows:

	2018	2017	2016	Increase (Decrease) From 2017 to 2018	
				\$	%
Cash and Equivalents	3,936,893	2,682,345	2,567,499	1,254,548	46.8%
Receivables	1,279,430	1,673,771	20,223	(394,341)	-23.6%
Investments	346,567,620	533,689,745	455,932,238	(187,122,125)	-35.1%
Prepaid expenses	-	-	-	-	0.0%
Property and Equipment	14,948	9,567	11,233	5,381	56.2%
Deferred Outflows	156,007	-	-	156,007	100.0%
Total Assets	351,954,898	538,055,428	458,531,193	(186,100,530)	-34.6%
Total Liabilities	1,892,122	1,489,361	1,258,645	402,761	27.0%
Deferred Inflows	74,644	-	-	74,644	100.0%
Net Assets, End of Year	349,988,132	536,566,067	457,272,548	(186,577,935)	-34.8%
Net Assets, Beginning of Year	536,566,067	457,272,548	402,377,952	79,293,519	17.3%
Transfers to DB	(229,076,137)	-	-		
Net Increase (Decrease) in Net Assets	42,498,202	79,293,519	54,894,596		

During 2018, DC Plan net position decreased by approximately \$186.6 million or 34.8%, due primarily to the transfer of DC Plan funds of employees who elected to transfer to the DB 1.75 Plan, totaling approximately \$229 million.

DC Plan investments include core mutual funds, and target date funds. The core mutual funds allow members to create their own portfolios based on the type of investments that best fit their time horizon, risk tolerance and investment goals.

Employee contributions to the DC Plan are based on an automatic deduction of 5% of the member's regular base pay. Statutory contributions are determined using the same rates as the DB Plan. Of the amount contributed by the employer, only 5% of the member's regular base pay is deposited into the member's individual account. The remaining amount is contributed towards the unfunded liability of the DB Plan. Members who have completed five years of service are fully vested in employer contributions plus any earnings thereon.

GOVERNMENT OF GUAM RETIREMENT FUND

Management's Discussion and Analysis, continued

September 30, 2018

(4) Defined Contribution Plan, continued

Additions and Deductions to DC Plan Net Position for the years ended September 30, 2018, 2017 and 2016 are as follows:

	2018	2017	2016	Increase (Decrease) From 2017 to 2018	
				\$	%
Net Appreciation in Fair Value of Investments	18,863,481	44,510,428	16,967,995	(25,646,947)	-57.6%
Interest, Dividends & Other Investment Income	25,252,853	18,391,102	22,911,564	6,861,751	37.3%
Less Investment Expenses	124,098	121,664	119,325	2,434	2.0%
Net Investment Income	43,992,236	62,779,866	39,760,234	(18,787,630)	-29.9%
Employer Contributions	15,917,364	20,171,815	18,552,941	(4,254,451)	-21.1%
Member Contributions	15,824,443	19,949,072	18,536,053	(4,124,629)	-20.7%
Total Contributions	31,741,807	40,120,887	37,088,994	(8,379,080)	-20.9%
Total Additions	75,734,043	102,900,753	76,849,228	(27,166,710)	-26.4%
Refunds	31,159,183	21,539,127	19,847,080	9,620,056	44.7%
Administrative Expenses	2,076,658	2,068,107	2,107,552	8,551	0.4%
Transfer from DB Plan	0	0	0	0	0.0%
Total Deductions	33,235,841	23,607,234	21,954,632	9,628,607	40.8%
Net Increase (Decrease) in Net Position	42,498,202	79,293,519	54,894,596		

Additions (deductions) to DC Plan Net Position

During 2018, the net appreciation in fair value of investments decreased by \$25.6 million from the 2017 total, while interest dividends and other investment income increased by \$6.9 million from the 2017 total. During 2018, refunds totaled \$31.2 million, an increase of 44.7% from 2017. Refunds of member contributions are at the discretion of the member and vary from year to year.

DC Plan membership as of September 30, 2018, 2017 and 2016 is as follows:

	2018	2017	2016	Increase (Decrease) from 2017 to 2018
Active (Contributing) Members	5,921	9,027	8,947	(3,106)
Inactive (Non-Contributing) Members with Account Balances	6,270	4,546	4,204	1,724
Total Membership	12,191	13,573	13,151	(1,382)

Increase in inactive members by 1,724 from 2017 to 2018 is due largely to former active members, with excess account balances who transferred to DB 1.75 Plan effective January 1, 2018.

GOVERNMENT OF GUAM RETIREMENT FUND

Management's Discussion and Analysis, continued

September 30, 2018

(5) Future Outlook

Membership



Active membership in the DB Plan decreased from 2,067 in 2017 to 1,845 in 2018. DC plan active membership decreased from 9,027 in 2017 to an estimated 5,921 in 2018. The decrease is primarily due to the transfer of DC Plan participants to the DB 1.75 Plan, of which there were 3,226 active members in 2018.



The payroll for DB members decreased from \$182 million in 2009, to an estimated \$126.7 million in 2018. The payroll for DC members has decreased from \$241.8 million in 2009, to an estimated \$171.5 million in 2018. The payroll for DB 1.75 members is \$224.1 million in 2018.

Total payroll, including DB, DC, and DB 1.75 members, has increased from \$423.8 million in 2009, to an estimated \$522.3 million in 2018.

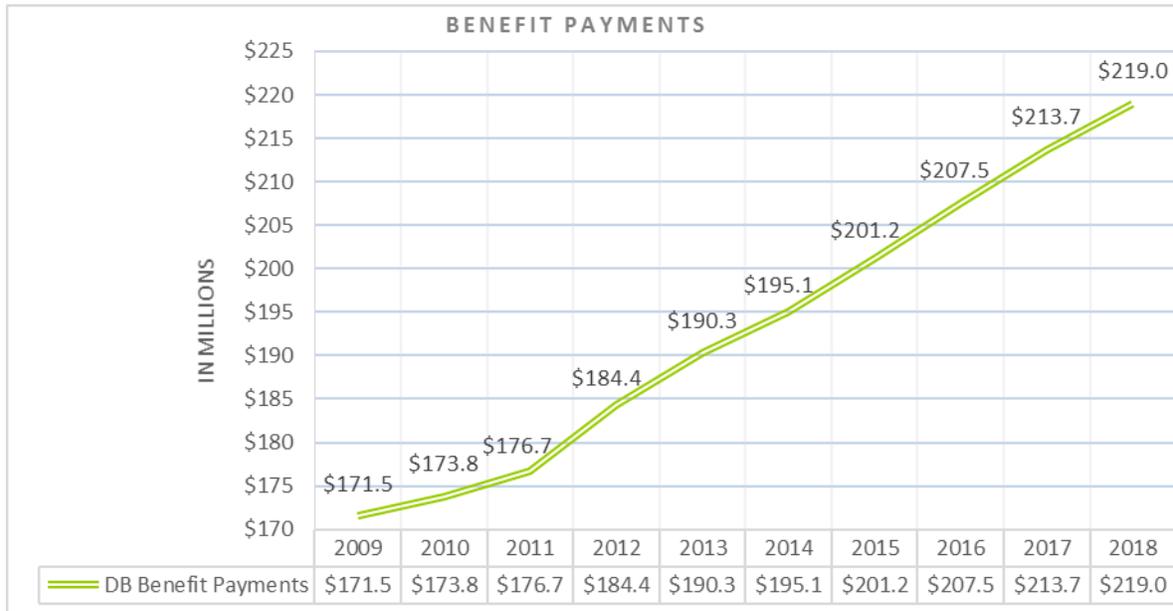
GOVERNMENT OF GUAM RETIREMENT FUND

Management's Discussion and Analysis, continued

September 30, 2018

(5) Future Outlook, continued

DB Benefit Payments



The number of retired DB members has increased from 7,085 in 2009, to an estimated 7,252 in 2018. Annual benefit payments have also increased from \$171.5 million in 2009, to an estimated \$219 million in 2018. **Looking ahead**, benefit payments for DB retirees are expected to increase as active members continue to retire.

Defined Benefit Plan

The GGRF Board will revisit on an annual basis the asset allocation policy, related statutes, and the overall structure for managing GGRF assets, to ensure assets are managed in accordance with the following objectives:

1. Ensuring payment of all benefit and expense obligations when due.
2. Maximizing expected return within reasonable and prudent risk levels.
3. Maximizing the probability of achieving the actuarial rate of return assumption.
4. Controlling costs of administering GGRF and managing the investments.

Relative to the above objectives, the Board will perform quarterly investment performance reviews and rebalance GGRF's investment portfolio accordingly.

The Defined Contribution Plan

As previously discussed, the GGRF Board's proposed legislation to establish the Hybrid Plan, which combines a defined benefit component with a deferred compensation account, was introduced. As a result, PL 33-186 was passed into law on September 20, 2016 and became effective on January 1, 2018.

GOVERNMENT OF GUAM RETIREMENT FUND

Statement of Fiduciary Net Position

September 30, 2018 with Comparative Totals for 2017

<u>ASSETS</u>	<u>Defined Benefit</u>	<u>Defined Contribution</u>	<u>2018 Total</u>	<u>2017 Total</u> (As Restated)
Investments, at fair value:				
Common and preferred stocks	\$ 1,363,025,724	-	1,363,025,724	1,110,502,896
U.S. Government securities	207,209,221	-	207,209,221	232,829,593
Corporate bonds and notes	341,684,213	-	341,684,213	303,153,981
Money market funds	26,130,425	-	26,130,425	23,864,447
Mutual funds	73,297,212	340,071,663	413,368,875	602,482,734
DC plan forfeitures	-	6,495,957	6,495,957	7,737,923
Total investments	<u>2,011,346,795</u>	<u>346,567,620</u>	<u>2,357,914,415</u>	<u>2,280,571,574</u>
Receivables:				
Contributions, Interest & Penalties:				
Employer contributions, net	4,777,413	573,756	5,351,169	2,944,198
Employer contributions, unfunded liability	2,831,437	-	2,831,437	4,401,290
Member contributions	1,699,660	572,275	2,271,935	1,601,455
Interest and penalties on contributions	202,039	-	202,039	293,978
Supplemental/Insurance benefits advanced	1,996,097	-	1,996,097	2,000,350
	<u>11,506,646</u>	<u>1,146,031</u>	<u>12,652,677</u>	<u>11,241,271</u>
Member Notes:				
Early Retirement Incentive Program (ERIP)	-	-	-	-
Service Credits	3,185,369	-	3,185,369	481,712
	<u>3,185,369</u>	<u>-</u>	<u>3,185,369</u>	<u>481,712</u>
Other:				
Deferred receivables - Supplemental/COLA benefits	20,456,178	-	20,456,178	26,450,176
Accrued interest and dividends on investments	5,882,874	-	5,882,874	4,664,261
Other receivables	626,228	133,399	759,627	809,254
Due from brokers for unsettled trades	4,096,366	-	4,096,366	2,693,741
Due from DC plan	726,713	-	726,713	778,118
	<u>31,788,359</u>	<u>133,399</u>	<u>31,921,758</u>	<u>35,395,550</u>
Total receivables	<u>46,480,374</u>	<u>1,279,430</u>	<u>47,759,804</u>	<u>47,118,533</u>
Cash and cash equivalents	4,803,854	3,936,893	8,740,747	5,547,556
Prepaid expenses	6,415	-	6,415	12,116
Property and equipment	651,708	14,948	666,656	738,540
Total assets	<u>2,063,289,146</u>	<u>351,798,891</u>	<u>2,415,088,037</u>	<u>2,333,988,319</u>
<u>DEFERRED OUTFLOWS OF RESOURCES</u>				
Deferred outflows of resources from pension	635,543	156,007	791,550	383,152
Deferred outflows - OPEB	835,567	-	835,567	1,059,797
Total deferred outflows	<u>1,471,110</u>	<u>156,007</u>	<u>1,627,117</u>	<u>1,442,949</u>
Total assets and deferred outflows from pension	<u>2,064,760,256</u>	<u>351,954,898</u>	<u>2,416,715,154</u>	<u>2,335,431,268</u>
<u>LIABILITIES</u>				
Accounts payable and accrued expenses	3,579,149	786,032	4,365,181	2,856,690
Due to brokers for unsettled trades	6,908,827	-	6,908,827	8,147,588
Due to DB plan	-	726,713	726,713	778,118
Total current liabilities	<u>10,487,976</u>	<u>1,512,745</u>	<u>12,000,721</u>	<u>11,782,396</u>
Net pension liability	5,281,342	379,377	5,660,719	5,450,291
Net OPEB Liability	11,237,415	-	11,237,415	11,891,310
Total liabilities	<u>27,006,733</u>	<u>1,892,122</u>	<u>28,898,855</u>	<u>29,123,997</u>
<u>DEFERRED INFLOWS OF RESOURCES</u>				
Unearned revenue for service credits	3,444,429	-	3,444,429	660,577
Deferred inflows from pension	211,970	74,644	286,614	135,291
Deferred inflows - OPEB	1,218,849	-	1,218,849	96,014
Total deferred inflows of resources	<u>4,875,248</u>	<u>74,644</u>	<u>4,949,892</u>	<u>891,882</u>
Net position restricted for pensions (See required supplemental schedule of funding progress)	<u>\$ 2,032,878,275</u>	<u>\$ 349,988,132</u>	<u>\$ 2,382,866,407</u>	<u>\$ 2,305,415,389</u>

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

GOVERNMENT OF GUAM RETIREMENT FUND

Statement of Changes in Fiduciary Net Position

Year ended September 30, 2018 with Comparative Totals for 2017

	<u>Defined Benefit</u>	<u>Defined Contribution</u>	<u>2018 Total</u>	<u>2017 Total</u> (As Restated)
Investment income				
Net appreciation in fair value of investments	\$ 70,558,548	18,863,481	89,422,029	206,178,383
Interest	24,644,319	24,667,894	49,312,213	41,080,521
Dividends	14,442,841	-	14,442,841	12,862,678
Other investment income	410,460	584,959	995,419	453,091
	<u>110,056,168</u>	<u>44,116,334</u>	<u>154,172,502</u>	<u>260,574,673</u>
Less investment expenses	5,574,493	124,098	5,698,591	5,029,234
Net investment income	<u>104,481,675</u>	<u>43,992,236</u>	<u>148,473,911</u>	<u>255,545,439</u>
Contributions				
Employer	127,072,864	15,917,364	142,990,228	139,383,249
Member	28,895,275	15,824,443	44,719,718	33,425,589
Total contributions	<u>155,968,139</u>	<u>31,741,807</u>	<u>187,709,946</u>	<u>172,808,838</u>
TOTAL ADDITIONS	260,449,814	75,734,043	336,183,857	428,354,277
Benefit payments				
Age and service annuities	184,232,873	-	184,232,873	179,682,483
Survivor annuities	29,461,972	-	29,461,972	28,437,070
Disability annuities	5,348,959	-	5,348,959	5,625,697
Total benefit payments	<u>219,043,804</u>	<u>-</u>	<u>219,043,804</u>	<u>213,745,250</u>
Refunds to separated employees and withdrawals	1,793,906	31,159,183	32,953,089	22,652,640
Administrative and general expenses	4,143,251	2,076,658	6,219,909	6,827,812
Interest on refunded contributions	516,037	-	516,037	831,859
TOTAL DEDUCTIONS	<u>225,496,998</u>	<u>33,235,841</u>	<u>258,732,839</u>	<u>244,057,561</u>
Net increase in plan net position	34,952,816	42,498,202	77,451,018	184,296,716
Net position restricted for pensions, beginning of year	1,768,849,322	536,566,067	2,305,415,389	2,131,202,393
Prior period adjustment for OPEB liability	-	-	-	10,083,720
Transfer In (Out): To DB1.75 Plan From DC Plan	<u>229,076,137</u>	<u>(229,076,137)</u>	<u>-</u>	<u>-</u>
Net position restricted for pensions, end of year	<u>\$2,032,878,275</u>	<u>\$ 349,988,132</u>	<u>\$ 2,382,866,407</u>	<u>\$ 2,305,415,389</u>

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

GOVERNMENT OF GUAM RETIREMENT FUND

Notes to Financial Statements

September 30, 2018 and 2017

(1) Description of the Fund

The following brief description of the Government of Guam Retirement Fund (GGRF) is provided for general information purposes only. Members should refer to Title 4, Chapter 8, Articles 1 and 2 of the Guam Code Annotated (GCA) for more complete information.

Purpose

The Government of Guam Retirement Fund was established and became operative on May 1, 1951 to provide retirement annuities and other benefits to employees of the Government of Guam. The Board of Trustees (the "Board") is responsible for the general administration and proper operation of the Fund. With the passage of Public Law 27-43, effective November 14, 2003 the Board of Trustees comprises seven members, four of whom are elected and three of whom are appointed by the Governor with the advice and consent of the Legislature. Two of the elected members must be GGRF retirees domiciled in Guam. These two members are elected by GGRF retirees. The other two elected members must be GGRF members with at least five years of employment by the Government of Guam. These two members are elected by GGRF active members. The GGRF is accounted for as a blended component unit, fiduciary fund type, pension trust fund of the Government of Guam.

(2) Description of the Defined Benefit Plan

Membership

The Defined Benefit Plan (DB) is a single-employer defined benefit pension plan and membership is mandatory for all employees in the service of the Government of Guam on the operative date. The DB plan provides for retirement, disability, and survivor benefits to members of the Plan prior to October 1, 1995. All new employees whose employment commences on or after October 1, 1995 are required to participate in the Defined Contribution Plan.

The following employees have the option of accepting or rejecting membership and become members only upon submission of a written request to the Board for membership:

1. Employees hired for a definite agreed term or who at the time of employment are not domiciled on Guam.
2. Employees of a public corporation of the Government of Guam or of the University of Guam.
3. Any employee whose employment is purely temporary, seasonal, intermittent or part time.

GOVERNMENT OF GUAM RETIREMENT FUND

Notes to Financial Statements, continued

September 30, 2018 and 2017

(2) Description of the Defined Benefit Plan, continued

Ineligible Persons

The following employees are not eligible for membership:

1. Persons whose services are compensated on a fee basis.
2. Independent contractors.
3. Persons whose employment is for a specific project.
4. Persons who are employed in the Senior Citizens Community Employment Program.

At September 30, 2018, membership is as follows:

Retirees and beneficiaries receiving benefits	7,252
Terminated members entitled to, but not yet receiving benefits	3,134
Active plan members-DB	1,845
Active plan members-DB 1.75	<u>3,226</u>
	<u>15,457</u>

Contributions

Contributions are set by law. Member contributions are required at 9.5% of base pay.

Based on the actuarial valuation as of September 30, 2017, which was issued in July 20, 2018, the actuarially determined contribution rate for the fiscal year ended September 30, 2018 was 27.83% of covered payroll.

Based on the actuarial valuation as of September 30, 2016, which was issued in April 2017 and revised in March 2018, the actuarially determined contribution rate for the fiscal year ended September 30, 2017 was 27.41% of covered payroll.

The established statutory rates at September 30, 2018 and 2017, were 27.83% and 27.41%, respectively, of covered payroll.

Retirement, Disability and Survivor Benefits

Under the defined benefit plan, retirement benefits are based on age and/or years of credited service and an average of the three highest annual salaries received by a member during years of credited service, or \$6,000, whichever is greater.

GOVERNMENT OF GUAM RETIREMENT FUND

Notes to Financial Statements, continued

September 30, 2018 and 2017

(2) Description of the Defined Benefit Plan, continued

Members who joined the DB plan prior to October 1, 1981 may retire with 10 years of service at age 60 (age 55 for uniformed personnel); or 20 to 24 years of service regardless of age with a reduced benefit if the member is under age 60; or completion of 25 years of service at any age.

Members who joined the DB plan on or after October 1, 1981 and prior to August 22, 1984 may retire with 15 years of service at age 60 (age 55 for uniformed personnel); or 25 to 29 years of service regardless of age with a reduced benefit if the member is under age 60; or completion of 30 years of service at any age.

Members who joined the DB plan after August 22, 1984 may retire with 15 years of service at age 65 (age 60 for uniformed personnel); or 25 to 29 years of service regardless of age with a reduced benefit if the member is under age 65; or completion of 30 years of service at any age.

Service Benefit Formula

The basic retirement benefit is computed as the sum of the following:

1. An amount equal to two percent (2%) of the average annual salary for each of the first ten years of credited service and two and one-half percent (2.5%) of average annual salary for each year or part thereof of credited service over ten years.
2. An amount equal to twenty dollars (\$20) multiplied by each year of credited service, the total of which is reduced by an amount equal to a hundredth of one percent (.01%) of said total for each one dollar (\$1) that a member's average annual salary exceeds six thousand dollars (\$6,000).

The basic annuity is limited to a maximum of eighty-five percent (85%) of the average annual salary, and cannot be less than one thousand two hundred dollars (\$1,200) per year.

Disability

Members under the age of 65 with six or more years of credited service who are not entitled to receive disability payments from the United States Government are eligible to receive sixty six and two-thirds percent (66-2/3%) of the average of their three highest annual salaries received during years of credited service.

GOVERNMENT OF GUAM RETIREMENT FUND

Notes to Financial Statements, continued

September 30, 2018 and 2017

(2) Description of the Defined Benefit Plan, continued

Survivor

In the event of death of a member who completed at least 3 years of total service, the following benefits are payable:

1. Spouse – annual benefit is equal to sixty percent (60%) of the disability or service retirement benefit earned by the member.
2. Minor children – Basic benefit is \$2,880 per year for a minor child up to 18 years of age (age 24 if a full-time student).

Separation from the DB Plan

Upon complete separation from service before attaining at least 25 years of total service, a member is entitled to receive a refund of total contributions including interest. Public Law 27-68 raised the time frame under which a refund was available from 20 years to 25 years, effective February 6, 2004.

A member who terminates after completing at least 5 years of service has the option of leaving contributions in the GGRF and receiving a service retirement benefit upon attainment of the age of 60 years.

(3) Description of the Defined Contribution Retirement System

Purpose

The Defined Contribution Retirement System (DCRS) was created by Public Law 23-42:3 to provide an individual account retirement system for any person who is employed in the Government of Guam. The GGRF Board of Trustees is responsible for the general administration and operation of the fund. The DCRS, by its nature, is fully funded on a current basis from employer and member contributions.

Membership

The DCRS is a single-employer pension plan and shall be the single retirement program for all new employees whose employment commences on or after October 1, 1995.

Existing members of the DB plan with less than 20 years of service credit may, upon written election, voluntarily elect membership in the DCRS. This option was available for sixty five (65) months after enactment of the legislation, and is available between March 1 and May 31 of every year, beginning in the year 2002. After making the election to transfer, the employee may not change the election or again become a member of the DB plan.

GOVERNMENT OF GUAM RETIREMENT FUND

Notes to Financial Statements, continued

September 30, 2018 and 2017

(3) Description of the Defined Contribution Retirement System, continued

At September 30, 2018, membership is as follows:

Active contributing members	5,921
Inactive members with account balances	<u>6,270</u>
	<u>12,191</u>

The 6,270 inactive members includes approximately 1,200 Active DC Plan members, with excess account balances who transferred to the DB 1.75 Plan effective January 1, 2018.

Contributions

Member and employer contributions are set by law at five percent (5%) of base pay.

Separation from the DCRS

Any member who leaves government service after attaining 5 years of total service is entitled to receive their total contribution plus 100% of the employer contribution and any earnings thereon.

Any member who leaves government service with less than 5 years of total service is entitled to receive their total contribution plus any earnings thereon.

(4) Summary of Significant Accounting Policies

Method of Accounting

The financial statements presented herein have been prepared 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.

Employee contributions are recognized in the period in which contributions are due. Employer contributions are recognized when due and the employer has made a formal commitment to provide the contributions. Contributions from employees and employers for service through September 30, 2018 are accrued.

These contributions are considered fully collectible; accordingly, no allowance for uncollectible receivables is reflected in the financial statements. Benefits and refunds are recognized when due and payable in accordance with provisions set forth in the Guam Code Annotated.

GOVERNMENT OF GUAM RETIREMENT FUND

Notes to Financial Statements, continued

September 30, 2018 and 2017

(4) Summary of Significant Accounting Policies, continued

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 reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Cash

At September 30, 2018, the GGRF has cash balances in banks of approximately \$9.9 million, of which \$250,000 is insured by the Federal Deposit Insurance Corporation, and of which includes approximately \$2.7M in outstanding checks. The remaining balances are collateralized by securities held by a trustee in the name of the financial institution.

Reclassification

Certain balances in the 2017 presentation have been reclassified to conform to the 2018 presentation.

Investments

Investments include U.S. Federal Government and agency obligations, foreign government obligations, real estate, commercial mortgages, corporate debt, mutual funds, and equity instruments. Investments are reported at fair value. Securities transactions and any resulting gains or losses are accounted for on a trade date basis.

Investments other than real estate, commercial mortgages and other loans, and municipal revenue bonds are reported at market values determined by the custodial agents. The agent's determination of market values includes, among other things, using pricing services or prices quoted by independent brokers at current exchange rates.

Commercial mortgages and other loans and municipal revenue bonds have been valued on an amortized cost basis, which approximates market or fair value. No allowance for loan loss has been provided as all loans and bonds are considered by management to be fully collectible. Short-term investments are reported at cost, which approximates market value.

GOVERNMENT OF GUAM RETIREMENT FUND

Notes to Financial Statements, continued

September 30, 2018 and 2017

(4) Summary of Significant Accounting Policies, continued

For investments where no readily ascertainable market value exists, management, in consultation with their investment advisors, has determined the fair values for the individual investments based on anticipated maturity dates and current interest rates commensurate with the investment's degree of risk.

Northern Trust Company held the investments as custodian in the Fund's name through September 30, 2018. In addition, the Fund has selected investment managers who are given authority to purchase and sell securities in accordance with the following guidelines:

- A. Investment managers may invest in U.S. and non-U.S. common stocks, American Depository Receipts (ADRs), convertible bonds, preferred stocks, fixed-income securities, mutual funds and short-term securities.
 - 1. U.S. equities:
 - a. Equity holdings are restricted to readily marketable securities of corporations that are actively traded on the major U.S. exchanges and over the counter.
 - b. Common and preferred stock:
 - i. The issuing institution has reported a profit in at least four of the five fiscal years preceding the date of investment, or alternatively, in at least seven of the ten fiscal years preceding the date of investment.
 - ii. The issuing institution has paid a cash dividend on its common or capital stock in at least four of the five years preceding the date of investment, or alternatively, in at least seven of the ten fiscal years preceding the date of investment.
 - iii. Total cash dividends have not exceeded total earnings in five years preceding the date of investment.
 - iv. On the date of investment, the issuer is not in default in payment of principal or interest on any of its publicly held bonds or other evidence of indebtedness, and any contingent interest, cumulative and non-cumulative preferred dividends and dividends on prior common or capital stock have been paid in full.

GOVERNMENT OF GUAM RETIREMENT FUND

Notes to Financial Statements, continued

September 30, 2018 and 2017

(4) Summary of Significant Accounting Policies, continued

- v. Preferred stock must also adhere to the following:
The net earnings of the institution available for fixed charges over a period of five fiscal years preceding the date of investment have averaged per year, and during either of the last two years have been, after depreciation and income taxes, no less than:
 - 1. Two times its average annual fixed charges, maximum contingent interest and preferred dividend requirements over the same period, in the case of any public utility company; or,
 - 2. Three times its average annual fixed charges, maximum contingent interest and preferred dividend requirements over the same period, in the case of any other company.

2. U.S. Fixed Income:

- a. All fixed income securities held in the portfolio must have a Moody's, Standard & Poor's and/or a Fitch's credit quality rating of no less than "BBB". U.S. Treasury and U.S. Government agencies are qualified for inclusion in the portfolio.
- b. No more than twenty percent (20%) of the market value of the portfolio may be rated less than single "A" quality, unless the manager has specific written authorization. Eighty percent (80%) of the fixed income portfolio must be in bonds of credit quality of no less than "A".
- c. Total portfolio quality (capitalization weighted) must maintain an "A" minimum rating.
- d. In case such bonds or other evidence of indebtedness are not so rated by two nationally recognized and published rating services, the net earnings available for fixed charges over a period of five fiscal years preceding the date of investment have averaged per year and during either of the last two years have been, after depreciation and taxes, not less than:

GOVERNMENT OF GUAM RETIREMENT FUND

Notes to Financial Statements, continued

September 30, 2018 and 2017

(4) Summary of Significant Accounting Policies, continued

- i. Two times its average annual fixed charges over the same period, in the case of any public utility company;
 - ii. One and one-half times its average annual fixed charges over the same period, in the case of any financial company; or,
 - iii. Three times its average annual fixed charges over the same period, in the case of any other company.
- e. With the written petition and subsequent written approval of the Trustees, opportunistic investment bonds issued by national governments other than the United States or foreign corporations may comprise up to six percent (6%) of each fixed-income manager's portfolio. In no case shall these investments exceed three and one-half percent (3.5%) of the total GGRF investments. All non-U.S. securities will be, in the judgment of the investment managers, of credit quality equal to or superior to the standards described above.

3. Non-U.S. Equities

- a. Common or capital stock of any institution or entity created or existing under the laws of any foreign country are permissible investments, provided that:
 - i. The issuing institution has reported a profit in at least four of the five fiscal years preceding the date of investment, or alternatively, in at least seven of the ten fiscal years preceding the date of investment.
 - ii. The issuing institution has paid a cash dividend on its common or capital stock in at least four of the five years preceding the date of investment, or alternatively, in at least seven of the ten fiscal years preceding the date of investment.
 - iii. Total cash dividends have not exceeded total earnings in five years preceding the date of investment.
 - iv. On the date of investment, the issuer is not in default in payment of principal or interest on any of its publicly held bonds or other evidences of indebtedness, and any contingent interest, cumulative and non-cumulative preferred dividends and dividends on prior common or capital stock have been paid in full.

GOVERNMENT OF GUAM RETIREMENT FUND

Notes to Financial Statements, continued

September 30, 2018 and 2017

(4) Summary of Significant Accounting Policies, continued

- b. Consistent with the desire to maintain broad diversification, allocations to any country, industry or other economic sector should not be excessive.

4. Cash and Cash Equivalents

- a. Cash equivalent reserves must consist of cash instruments having a quality rating of A-2, P-2 or higher. Eurodollar Certificates of Deposit, time deposits, and repurchase agreements are also acceptable investment vehicles. All other securities will be, in the judgment of the investment managers, of credit quality equal to or superior to the standards described above.
 - b. No single issue shall have a maturity of greater than two years.
 - c. The cash portfolio shall have a maturity of less than one year.
 - d. Any idle cash not invested by the investment managers shall be invested daily through an automatic sweep managed by the custodian.
- B. No investment management organization shall have more than twenty-five percent (25%) of the GGRF's assets under its direction.
- C. No individual security of any issuer, other than that of the United States government or Government of Guam, shall constitute more than five percent (5%), at cost, of the total GGRF or of any investment manager's portfolio.
- D. Holdings of any issuer must constitute no more than five percent (5%) of the outstanding securities of such issuer.
- E. Investments in a registered mutual fund managed by the investment manager are subject to prior approval of the Board of Trustees.
- F. The following securities and transactions are not authorized: letter stock and other unregistered securities; non-negotiable securities; commodities or other commodity contracts; and, short sales origin transactions. Options and futures are restricted, except by petition to the Trustees for approval.

Investment policy

GGRF's investment policy in regard to the allocation of invested assets is established by mandates of public laws as enacted from time to time, as codified at 4GCA Title 4, Chapter 9, Article 1. GGRF's strategic asset allocation is based on the Fund's time horizon, risk tolerances, investment objectives, and asset class preferences.

GOVERNMENT OF GUAM RETIREMENT FUND

Notes to Financial Statements, continued

September 30, 2018 and 2017

(4) Summary of Significant Accounting Policies, continued

The following was the Board's adopted asset allocation policy as of September 30, 2018:

Asset Class	Target Allocation
U.S. Equities (Large Cap)	29.00%
U.S. Equities (Small Cap)	7.00%
Non-U.S. Equities	16.50%
Non-U.S. Equities (Emerging Markets)	2.00%
U.S. Fixed Income (Aggregate)	21.50%
High Yield Bonds	8.00%
Risk Parity	8.00%
Global Real Estate (REITs)	5.00%
Master Limited Partnerships	3.00%
	100.00%

Rate of return

Based on the September 30, 2017 Actuarial Valuation, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 11.99%. The money-weighted rate of return expresses investment performance, net of investment expense.

Due to/from Brokers

Amounts due to/from brokers for unsettled trades consists of securities purchased or sold, which have not yet settled.

Income Taxes

The Fund is a public employees' retirement system and an autonomous agency of the Government of Guam. Accordingly, the Fund is not subject to income taxes.

Actuarial Present Value of Accumulated Plan Benefits

Accumulated plan benefits are those future periodic payments, including lump-sum distributions that are attributable under the Fund's provisions to the service members have rendered through the most recent actuarial valuation date (September 30, 2017).

Accumulated plan benefits include benefits expected to be paid to (i) retired, disabled, and terminated employees and their beneficiaries, (ii) beneficiaries of employees who have died, and to (iii) present employees and their beneficiaries. Benefits payable under all circumstances - retirement, death, disability, and termination of employment - are included, to the extent they are deemed attributable to employee service rendered through September 30, 2017.

GOVERNMENT OF GUAM RETIREMENT FUND

Notes to Financial Statements, continued

September 30, 2018 and 2017

(4) Summary of Significant Accounting Policies, continued

The actuarial present value of accumulated plan benefits is determined by an independent actuarial firm and is the amount that results from applying actuarial assumptions to adjust the accumulated plan benefits to reflect the time value of money (through discounts for interest) and the probability of payment (by means of decrements such as for death, disability, withdrawals, or retirement) between the most recent actuarial valuation date (September 30, 2017), and the expected date of payment.

Recently Adopted Accounting Pronouncements

During the year ended September 30, 2018, the Fund implemented the following GASB pronouncements:

- In June 2015, GASB issued Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*, effective for periods beginning after June 15, 2016. This Statement replaces Statement No. 43, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*, as amended, and No. 57, *OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans*. It also includes requirements for defined contribution OPEB plans that replace the requirements for those OPEB plans in Statement No. 25, *Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans*, as amended, Statement No. 43, and Statement No. 50, *Pension Disclosures*.
- In August 2015, GASB issued Statement No. 77, *Tax Abatement Disclosures*. This Statement requires governments that enter into tax abatement agreements to disclose certain information about the agreements. The provisions of this Statement are effective for fiscal years beginning after December 15, 2015. The implementation of this statement did not have a material impact on the Fund's financial statements.
- In December 2015, GASB issued Statement No. 78, *Pensions Provided Through Certain Multiple-Employer Defined Benefit Pension Plans*. This Statement addresses an issue regarding the scope and applicability of Statement No. 68, *Accounting and Financial Reporting for Pensions*. This issue is associated with pensions provided through certain multiple-employer defined benefit pension plans and to state or local governmental employers whose employees are provided with such pensions. GASB Statement No. 78 was effective for fiscal year ending September 30, 2017. The implementation of this statement did not have a material impact on the Fund's financial statements.

GOVERNMENT OF GUAM RETIREMENT FUND

Notes to Financial Statements, continued

September 30, 2018 and 2017

(4) Summary of Significant Accounting Policies, continued

Recently Adopted Accounting Pronouncements, continued

- In December 2015, GASB issued Statement No. 79, *Certain External Investment Pools and Pool Participants*. This Statement addresses accounting and financial reporting for certain external investment pools and pool participants. GASB Statement No. 79 was effective for fiscal year ending September 30, 2017. The implementation of this statement did not have a material impact on the Fund's financial statements.
- In January 2016, GASB issued Statement No. 80, *Blending Requirements for Certain Component Units*. The Statement is intended to provide clarity about how certain component units incorporated as not-for-profit corporations should be presented in the financial statements of the primary state or local government. GASB Statement No. 80 was effective for fiscal year ending September 30, 2017. The implementation of this statement did not have a material impact on the Fund's financial statements.
- In June 2015, GASB issued statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, effective for periods beginning after June 15, 2017. This Statement replaces the requirement of Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefit Plans Other Than Pensions*, as amended, and No. 57, *OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans*, for OPEB. Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*, establishes new accounting and financial reporting requirements for OPEB plans. GASB Statement No. 75 was effective for the Fund for fiscal year ending September 30, 2018.
- In March 2016, GASB issued Statement No. 81, *Irrevocable Split-Interest Agreements*. This Statement is to improve accounting and financial reporting for irrevocable split-interest agreements by providing recognition and measurement guidance for situations in which a government is a beneficiary of the agreement. GASB Statement No. 81 was effective for the fiscal year ending September 30, 2018. The implementation of this statement did not have a material impact on the Fund's financial statements.

GOVERNMENT OF GUAM RETIREMENT FUND

Notes to Financial Statements, continued

September 30, 2018 and 2017

(4) Summary of Significant Accounting Policies, continued

Recently Adopted Accounting Pronouncements, continued

- In March 2016, GASB issued Statement No. 82, *Pension Issues*. This Statement addresses certain issues that have been raised with respect to Statements No. 67, *Financial Reporting for Pension Plans*, No. 68, *Accounting and Financial Reporting for Pensions*, and No. 73, *Accounting and Financial Reporting for Pensions and Related Assets That Are Not within the Scope of GASB Statement 68, and Amendments to Certain Provisions of GASB Statements 67 and 68*. 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) contribution requirements. GASB Statement No. 82 was effective for the fiscal year ending September 30, 2018. The implementation of this statement did not have a material impact on the Fund's financial statements.
- In March 2017, GASB issued Statement No. 85, *Omnibus 2017*. This Statement is to address practice issues that have been identified during implementation and application of certain GASB Statements. This Statement addresses a variety of topics including issues related to blending component units, goodwill, fair value measurement and application, and postemployment benefits (pensions and other postemployment benefits [OPEB]). GASB Statement No. 85 was effective for the fiscal year ending September 30, 2018. The implementation of this statement did not have a material impact on the Fund's financial statements.
- In May 2017, GASB issued Statement No. 86, *Certain Debt Extinguishment Issues*. The primary objective of this Statement is to improve consistency in accounting and financial reporting for in-substance defeasance of debt by providing guidance for transactions in which cash and other monetary assets acquired with only existing resources—resources other than the proceeds of refunding debt—are placed in an irrevocable trust for the sole purpose of extinguishing debt. This Statement also improves accounting and financial reporting for prepaid insurance on debt that is extinguished and notes to financial statements for debt that is defeased in substance. GASB Statement No. 86 was effective for the fiscal year ending September 30, 2018. The implementation of this statement did not have a material impact on the Fund's financial statements.

GOVERNMENT OF GUAM RETIREMENT FUND

Notes to Financial Statements, continued

September 30, 2018 and 2017

(4) Summary of Significant Accounting Policies, continued

Upcoming Accounting Pronouncements

In November 2016, GASB issued Statement No. 83, *Certain Asset Retirement Obligations*. This Statement addresses accounting and financial reporting for certain asset retirement obligations. GASB Statement No. 83 will be effective for the fiscal year ending September 30, 2019. Management has not evaluated the impact that the implementation of this statement will have on the Fund's financial statements.

In January 2017, GASB issued Statement No. 84, *Fiduciary Activities*. This Statement improves guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes and how those activities should be reported. GASB Statement No. 84 will be effective for reporting periods after December 15, 2018. Management has not evaluated the impact that the implementation of this statement will have on the Fund's financial statements.

In June 2017, GASB issued Statement No. 87, *Leases*. The objective of this Statement is to better meet the information needs of financial statement users by improving accounting and financial reporting for leases by governments. This Statement increases the usefulness of governments' financial statements by requiring recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. GASB Statement No. 87 will be effective for the fiscal year ending September 30, 2021.

In March 2018, GASB issued Statement No. 88, *Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements*. The Statement's objective is to improve the information that is disclosed in notes to government financial statements related to debt, including direct borrowings and direct placements. It also clarifies which liabilities governments should include when disclosing information related to debt. This Statement defines debt for purposes of disclosure in notes to financial statements as a liability that arises from a contractual obligation to pay cash (or other assets that may be used in lieu of cash) in one or more payments to settle an amount that is fixed at the date the contractual obligation is established. This Statement requires that additional essential information related to debt be disclosed in notes to financial statements, including unused lines of credit; assets pledged as collateral for the debt; and terms specified in debt agreements related to significant events of default with finance-related consequences, significant termination events with finance-related consequences, and significant subjective acceleration clauses. The requirements of this Statement are effective for reporting periods beginning after June 15, 2018.

GOVERNMENT OF GUAM RETIREMENT FUND

Notes to Financial Statements, continued

September 30, 2018 and 2017

(4) Summary of Significant Accounting Policies, continued

Upcoming Accounting Pronouncements, continued

In June 2018, GASB issued Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*. The objective of the Statement are (1) to enhance the relevance and comparability of information about capital assets and the cost of borrowing for a reporting period and (2) to simplify accounting for interest cost incurred before the end of a construction period. This Statement establishes accounting requirements for interest cost incurred before the end of a construction period. Such interest cost includes all interest that previously was accounted for in accordance with the requirements of paragraphs 5–22 of Statement No. 62, Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements, which are superseded by this Statement. This Statement requires that interest cost incurred before the end of a construction period be recognized as an expense in the period in which the cost is incurred for financial statements prepared using the economic resources measurement focus. As a result, interest cost incurred before the end of a construction period will not be included in the historical cost of a capital asset reported in a business-type activity or enterprise fund. The requirements of this Statement are effective for reporting periods beginning after December 15, 2019.

In August 2018, GASB issued Statement No. 90, *Majority Equity Interest*. The primary objective of this Statement is to improve the consistency and comparability of reporting a government's majority equity interest in a legally separate organization and to improve the relevance of financial statement information for certain component units. It defines a majority equity interest and specifies that a majority equity interest in a legally separate organization should be reported as an investment if the government's holding of the equity interest meets the definition of an investment. A majority equity interest that meets the definition of an investment should be measured using the equity method, unless it is held by a special-purpose government engaged only in fiduciary activities, a fiduciary fund, or an endowment (including permanent and term endowments) or permanent fund. Those governments and funds should measure the majority equity interest at fair value. The requirements of this Statement are effective for reporting periods beginning after December 15, 2018.

The Fund is currently evaluating whether or not the new GASB pronouncements listed above will have a significant impact on the Fund's financial statements.

GOVERNMENT OF GUAM RETIREMENT FUND

Notes to Financial Statements, continued

September 30, 2018 and 2017

(4) Summary of Significant Accounting Policies, continued

Depreciation

Depreciation is calculated using the straight-line method over the estimated useful lives of the assets, as follows:

Furniture and fixtures	3 years
Automobiles	5 years
Buildings	30 years
Improvements	5-10 years
Equipment	1-5 years

Administrative expenses include depreciation and amortization expense of \$86,464 in 2018, and \$85,791 in 2017.

(5) Net Pension Liability and Funded Status

Funded Status

The unfunded actuarial accrued liability is used to determine funding requirements. As of the most recent actuarial valuations (September 30, 2017 and 2016), the DB plan had the following funded status:

	<u>2018</u>	<u>2017</u>
Actuarial value of assets	\$ 1,916,407,224	\$ 1,655,592,379
Actuarial accrued liability (AAL)	<u>3,183,171,580</u>	<u>2,904,908,866</u>
Unfunded actuarial accrued liability (UAAL)	\$ <u>1,266,764,356</u>	\$ <u>1,249,316,487</u>
Security Ratio (Funded ratio)	60.20%	56.99%

GASB 67

GASB 67 introduced some new terms for government sponsored pension plans. These are similar to the terms previously used, but have new names:

- Total Pension Liability (TPL) = Actuarial Accrued Liability
- Fiduciary Net Position (FNP) = Market Value of Assets
- Net Pension Liability (NPL) = Total Pension Liability (TPL) less Fiduciary Net Position (FNP)

GOVERNMENT OF GUAM RETIREMENT FUND

Notes to Financial Statements, continued

September 30, 2018 and 2017

(5) Net Pension Liability and Funded Status, continued

The Net Pension Liability is similar to what was previously called the Unfunded Actuarial Accrued Liability. However, the Net Pension Liability is calculated using the Market Value of Assets instead of the Actuarial Value of Assets. For GGRF, the Actuarial Value of Assets recognizes excess investment gains and losses over a 3 year period while the Market Value of Assets recognizes gains and losses immediately.

As reflected above, the Security Ratio for GGRF is calculated as the Actuarial Value of Assets divided by the Actuarial Accrued Liability. The security ratio based on the 2017 valuation was 60.20%.

GASB 67 requires the disclosure of the Fiduciary Net Position as a percentage of Total Pension Liability. This is similar to the security ratio, but uses the Market Value of Assets instead of the Actuarial Value of Assets.

Net Pension Liability

The components of the collective net pension liability of the participating component units at September 20, 2018 (based on the 2017 valuation) were as follows:

DEFINED BENEFIT PLAN

	Retirement <u>Annuity</u>	COLA and Supplemental <u>Annuity</u>	<u>Combined</u>
Total pension liability	\$ 2,901,439,073	288,147,121	3,189,586,194
Plan fiduciary net position	<u>1,759,189,680</u>	<u>-</u>	<u>1,759,189,680</u>
Net pension liability	\$ <u>1,142,249,393</u>	<u>288,147,121</u>	<u>1,430,396,514</u>
 Plan fiduciary net position as a percentage of total pension liability	 60.63%	 -0-%	 55.15%

DEFINED CONTRIBUTION PLAN

	Retirement <u>Annuity</u>	COLA and Supplemental <u>Annuity</u>	<u>Combined</u>
Total pension liability	\$ -	62,445,490	62,445,490
Plan fiduciary net position	<u>-</u>	<u>-</u>	<u>-</u>
Net pension liability	\$ <u>-</u>	<u>62,445,490</u>	<u>62,445,490</u>
 Plan fiduciary net position as a percentage of total pension liability	 -0-%	 -0-%	 -0-%

GOVERNMENT OF GUAM RETIREMENT FUND

Notes to Financial Statements, continued

September 30, 2018 and 2017

(5) Net Pension Liability and Funded Status, continued

The actuarial valuation of the Fund involves estimates of the reported amounts and assumptions about probability of occurrence of events far into the future. Examples include assumptions about future employment mortality and future salary increases. Amounts determined regarding the net pension liability are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future.

The Schedule of Employers' Net Pension Liability presents multi-year trend information about whether the plan fiduciary net positions are increasing or decreasing over time relative to the total pension liability. These schedules are presented in the Required Supplementary Information section. The Total Pension Liability as of September 30, 2018, is based on the results of an actuarial valuation date of September 30, 2017.

A summary of the actuarial assumptions as of the latest actuarial valuation is shown below and are based on the assumption that the Fund will continue in operation. If the Fund were to terminate, different actuarial assumptions and other factors might be applicable in determining the actuarial present value of accumulated plan benefits.

Actuarial Cost Method:	Entry age normal
Valuation of Assets:	3-year phase in of gains/losses relative to interest rate assumption.
Investment Income:	7% per year.
Salary Increase:	Graduated based on service with the Government ranging from 4.0% for service in excess of 20 years to 7.5% for service from zero to five years
Total Payroll Growth:	2.75%
Mortality:	RP 2000 Healthy table set forward 3 years for males and set forward 2 year for females
Disability:	1974-78 SOA LTD Non-Jumbo, with rates reduced by 50% for males and 75% for females
Retirement Age:	50% probability of retirement at earliest age of eligibility for unreduced retirement benefits; 20% per year thereafter until age 75, 100% at age 75
Return of Contributions:	100% withdrawing before retirement with less than 20 years of service assumed to elect a return of contributions. All those who have previously withdrawn assumed to elect a return of contributions. Contributions earn 4.5% interest.

GOVERNMENT OF GUAM RETIREMENT FUND

Notes to Financial Statements, continued

September 30, 2018 and 2017

(5) Net Pension Liability and Funded Status, continued

Amortization Method:	Constant percentage of total payroll, which is assumed to grow at 2.75% per year.
Amortization Period:	In accordance with 4GCA§8137, complete funding is to be achieved by April 30, 2031. At September 30, 2017 the remaining period is 14.58 years.

Long-term expected rate of return

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate 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.

The Fund has a target asset allocation based on the investment policy adopted by the Board of Trustees. The target allocation and best estimates of the expected nominal return for each major asset class are summarized as follows:

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Nominal Return</u>	<u>Component Return</u>
U.S. Equities (large cap)	29%	8.78%	2.55%
U.S. Equities (small cap)	7%	9.45%	0.66%
Non-U.S. Equities	13%	9.15%	1.19%
Non-U.S. Equities (small cap)	4%	9.15%	0.37%
Non-U.S. Equities (emerging markets)	1%	10.75%	0.11%
U.S. Fixed Income (aggregate)	25%	4.85%	1.21%
Risk parity	8%	8.36%	0.67%
High yield bonds	8%	7.35%	0.59%
Global Real Estate (REITs)	5%	8.71%	0.44%
Expected average return for one year			7.79%
Expected geometric mean (30 years)			7.17%

The assumption used in the actuarial valuation (7.0%) is slightly less than the expected geometric average return over the next 30 years. If the investments do not return the expected results, future pension expense will increase.

GOVERNMENT OF GUAM RETIREMENT FUND

Notes to Financial Statements, continued

September 30, 2018 and 2017

(5) Net Pension Liability of Employers, continued

Discount rate – Pension Liability For Retirement Benefits

The discount rate used to measure the total pension liability for retirement benefits was 7%. 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 employer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on those assumptions, the Fund’s fiduciary net position was projected to be available to make all projected future benefits 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.

Discount rate – Ad hoc Supplemental Benefits and Cost of Living Allowance (COLA)

The discount rate used to measure the Ad hoc Supplemental Benefits and Cost of Living Allowance (COLA) was a municipal bond rate of 3.64%. This rate was used as these two benefits are not funded with the accumulation of assets; they have been funded historically through appropriations from the Government of Guam

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

The following presents the net pension liability as of September 30, 2017, calculated using the current discount rate of 7.0% for the defined benefit plan retirement annuities and 3.64% for the Supplement/COLA benefits in both the defined benefit plan and the defined contribution plan, as well as the net pension liability calculated using a discount rate that is one percentage point (1.0%) lower or 1% higher than the current rate:

Defined Benefit Plan Retirement Annuity:

	1% Decrease 6.0%	Current Discount Rate 7.0%	1% Increase 8.0%
Net Pension Liability	\$1,417,664,691	\$1,142,249,393	\$905,036,982

Ad Hoc Supplemental and COLA Benefit:

	1% Decrease 2.64%	Current Discount Rate 3.64%	1% Increase 4.64%
Defined Benefit Plan	\$314,396,389	\$288,147,123	\$265,321,084
Defined Contribution Plan	71,007,118	62,445,490	55,151,039
	\$385,403,507	\$350,592,613	\$320,472,123

GOVERNMENT OF GUAM RETIREMENT FUND

Notes to Financial Statements, continued

September 30, 2018 and 2017

(5) Net Pension Liability of Employers, continued

Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

At September 30, 2018, the Fund reported a liability of \$5,660,719 for its proportionate share of the net pension liability. The Fund's proportion of the net pension liability was based on projection of the Fund's long-term share of contributions to the pension plan relative to the projected contributions of GovGuam and GovGuam's component units, actuarially determined. At September 30, 2018 the Fund's proportion of the GovGuam overall liability was .38%.

At September 30, 2018 and 2017, the Fund reported deferred outflows of resources and deferred inflows of resources as follows:

	Total 2018		Total 2017	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference between expected and actual experience	\$17,237	\$2,947	\$6,701	\$17,379
Net difference between projected and actual earnings on pension plan investments	-	211,970	-	23,039
Changes of assumptions	38,316	25,231	51,176	-
Contributions subsequent to the measurement date	537,534	-	313,835	-
Changes in proportion and difference between GGRF contributions and proportionate share	198,463	46,466	11,440	94,873
	\$791,550	\$286,614	\$383,152	\$135,291

GOVERNMENT OF GUAM RETIREMENT FUND

Notes to Financial Statements, continued

September 30, 2018 and 2017

(5) Net Pension Liability of Employers, continued

Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

Deferred outflows resulting from contributions subsequent to measurement date will be recognized as a reduction of the net pension liability in the following year. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions at September 30, 2018 will be recognized in pension expense (recovery) as follows:

<u>Year Ending</u> <u>September 30,</u>	<u>Amount</u>
2018	(\$12,521)
2019	(7,842)
2020	(5,837)
2021	(5,837)
2022	(5,837)
Thereafter	<u>(28,100)</u>
	<u><u>(\$65,974)</u></u>

(6) Deposit and Investment Risk Disclosure

Cash and investments as of September 30, 2018 are classified in the accompanying statement of plan net assets as follows:

	<u>DB Plan</u>	<u>DC Plan</u>
Cash and cash equivalents	\$ 4,803,854	3,936,893
Common stocks	1,363,025,724	-
U.S. government securities	207,209,221	-
Corporate bonds and notes	341,684,213	-
Money market funds	26,130,425	-
Mutual funds	<u>73,297,212</u>	<u>346,567,620</u>
Total cash and investments	\$ <u>2,016,150,649</u>	<u>350,504,513</u>

Cash and investments as of September 30, 2017 are classified in the accompanying statement of plan net assets as follows:

	<u>DB Plan</u>	<u>DC Plan</u>
Cash and cash equivalents	\$ 2,865,211	2,682,345
Common stocks	1,110,502,896	-
U.S. government securities	232,829,593	-
Corporate bonds and notes	303,153,981	-
Money market funds	23,864,447	-
Mutual funds	<u>76,530,912</u>	<u>533,689,745</u>
Total cash and investments	\$ <u>1,749,747,040</u>	<u>536,372,090</u>

GOVERNMENT OF GUAM RETIREMENT FUND

Notes to Financial Statements, continued

September 30, 2018 and 2017

(6) Deposit and Investment Risk Disclosure, continued

Investments Authorized by the Guam Code Annotated and the Fund's Investment Policy

Investments that are authorized by the Guam Code Annotated and by the Fund's investment policy are described in Note 4 above. There are no maximum maturities set for investments, with the exception of cash and cash equivalents as specified in Note 4 above. The only limitation on the maximum percentage of the portfolio that may be invested in any one type is with international government or corporate bonds as specified in Note 4 above. The maximum percentage of each issue that may be made is five percent, as specified in Note 4 above.

Disclosures Relating to Interest Rate Risk

Interest rate risk is the risk that changes in market 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. One of the ways that the Fund manages its exposure to interest rate risk is by purchasing a combination of shorter term and longer term investments and by timing cash flows from maturities so that a portion of the portfolio is maturing or coming close to maturity evenly over time as necessary to provide the cash flow and liquidity needed for operations.

Information about the sensitivity of the fair values of the Fund's investments (including investments held by bond trustee) to market interest rate fluctuations is provided by the following table that shows the distribution of the Fund's DB plan investments at September 30, 2018 by maturity:

<u>Investment Type</u>	<u>Remaining Maturity in Years</u>				
	<u>Less than 1</u>	<u>1 to 5</u>	<u>6 to 10</u>	<u>Greater than 10</u>	<u>Total</u>
U.S. Treasury securities	\$ -	40,063,139	36,225,435	57,911,172	134,199,746
Federal Agency securities	1,430,922	11,318,074	15,343,994	44,916,485	73,009,475
Corporate bonds and notes	<u>13,471,360</u>	<u>204,358,016</u>	<u>68,504,727</u>	<u>55,350,110</u>	<u>341,684,213</u>
Totals	\$ <u>14,902,282</u>	<u>255,739,229</u>	<u>120,074,155</u>	<u>158,177,768</u>	<u>548,893,434</u>

GOVERNMENT OF GUAM RETIREMENT FUND

Notes to Financial Statements, continued

September 30, 2018 and 2017

(6) Deposit and Investment Risk Disclosure, continued

Investments with Fair Values Highly Sensitive to Interest Rate Fluctuations

The Fund's investments are typically made in corporate equities, U.S. Treasury obligations, and commercial paper. These types of investments are not more sensitive to interest rate fluctuations than as already indicated above. Investments that are highly sensitive to interest rate fluctuations include Federal agency securities with coupon multipliers that are reset frequently, mortgage-backed securities, and Federal agency securities with interest rates that vary inversely to a benchmark set quarterly.

The Fund has invested in mortgage backed securities, which are more sensitive to fluctuations in interest rates than already indicated in the information provided above. Such securities are subject to early payment in a period of declining interest rates. The resultant reduction in expected total cash flows affects the fair value of these securities and makes the fair values of these securities highly sensitive to changes in interest rates.

At September 30, 2018, the Fund held mortgage-backed securities valued at approximately \$34.7 million.

Disclosures Relating to Credit Risk

Generally, credit risk is the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. This is measured by the assignment of a rating by a nationally recognized statistical rating organization.

Presented below is the minimum rating required by (where applicable) the Guam Code Annotated and the Fund's investment policy, and the actual rating as of September 30, 2018 for each investment type.

<u>Investment Type</u>	<u>Minimum Legal Rating</u>	<u>Amount</u>	<u>Rating as of Year End</u>
U.S. Treasury securities	N/A	\$ 134,199,746	Exempt from disclosure
Federal agency securities	N/A	73,009,475	Exempt from disclosure
Money market funds	A-2	26,130,425	AAAm
Corporate medium term notes and U.S. Municipal Obligations	BBB	4,452,277	Aaa
		302,560,733	Aa1-Aa3
		<u>34,671,203</u>	A1-A3
		\$ <u>575,023,859</u>	

GOVERNMENT OF GUAM RETIREMENT FUND

Notes to Financial Statements, continued

September 30, 2018 and 2017

(6) Deposit and Investment Risk Disclosure, continued

Concentration of Credit Risk

The Fund's investment policy contains limits on the amount that can be invested in any one issuer. At September 30, 2018, the Fund did not hold any investments in any one issuer (other than U.S. Treasury securities, mutual funds, and external investment pools) that represents 5% or more of total Fund investments.

Foreign Currency Risk

Foreign currency risk is the risk that changes in foreign exchange rates will adversely affect the fair values of an investment or deposit. At September 30, 2018, the Fund held approximately \$32 million in corporate bonds issued by companies organized in various foreign countries.

The countries of incorporation and the dollar amount of the bonds issued were as follows at September 30, 2018:

Canada	\$ 11 million
United Kingdom	4
Netherlands	5
Ireland	2
Others – 22 countries	<u>10</u>
Total	\$ <u>32</u> million

At September 30, 2018, the Fund held investments (generally U.S. dollar denominated ADRs) in corporate stocks issued by companies organized in various foreign countries. These ADRs are indirectly affected by fluctuations in currency exchange rates.

The market value of these investments at September 30, 2018 was approximately \$93 million. The functional currencies of the companies that issued the stocks (and the market value in millions of U.S. dollars) were as follows at September 30, 2018:

Euros	\$ 41 million
Japanese Yen	14
British Pound	12
Hong Kong Dollar	10
Others – 18 countries	<u>16</u>
Total	\$ <u>93</u> million

GOVERNMENT OF GUAM RETIREMENT FUND

Notes to Financial Statements, continued

September 30, 2018 and 2017

(6) Deposit and Investment Risk Disclosure, continued

Investments at Fair Value

GASB 72 requires all investments be categorized under a fair value hierarchy. The Fund determines fair value of its investments based upon both observable and unobservable inputs. The Fund categorizes its fair value measurements within the fair value hierarchy established by Generally Accepted Accounting Principles – levels within the hierarchy are as follows:

- Level 1 – quoted prices (unadjusted) for identical assets or liabilities in active markets that a government can access at the measurement date.
- Level 2 – inputs (other than quoted prices included within Level 1) that are observable for an asset or liability, either directly or indirectly. These inputs can include quoted prices for similar assets or liabilities in active or inactive markets, or market-corroborated inputs.
- Level 3 – unobservable inputs for an asset or liability, which generally results in a government using the best information available and may include the government’s own data.

The remaining investments not categorized under the fair value hierarchy are shown at NAV. These are investments in non-governmental entities for which a readily determinable fair value is not available, such as member units or an ownership interest in partners’ capital to which a proportionate share of net assets is attributed. Investments at NAV are commonly calculated by subtracting the fair value of liabilities from the fair value of assets.

Investment	Fair Value Sep. 30, 2018	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)
Equity Securities:			
Domestic equity	1,102,218,347	1,102,218,347	0
International Equity	260,807,377	260,807,377	0
Total equity securities	1,363,025,724	1,363,025,724	0
Debt Securities:			
U.S. Treasury Securities	207,209,221	0	207,209,221
Corporate bonds	302,560,733	0	302,560,733
Commercial mortgage-backed securities	34,671,203	0	34,671,203
Bank loans	4,452,277	0	4,452,277
	548,893,434	0	548,893,434
Other	99,427,637	99,427,637	0
Total Investments By Fair Value Level	2,011,346,795	1,462,453,361	548,893,434

GOVERNMENT OF GUAM RETIREMENT FUND

Notes to Financial Statements, continued

September 30, 2018 and 2017

(6) Deposit and Investment Risk Disclosure, continued

Custodial Credit Risk

Custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, a government will not be able to recover its deposits or will not be able to recover collateral securities that are in the possession of an outside party. The custodial credit risk for investments is the risk that, in the event of the failure of the counterparty (e.g., broker-dealer) to a transaction, a government will not be able to recover the value of its investment or collateral securities that are in the possession of another party.

The Guam Code Annotated and the Fund's investment policy contain legal requirements that limit the exposure to custodial credit risk for deposits and investments, as follows:

The Guam Code Annotated requires that a financial institution secure deposits made by Government of Guam agencies by pledging securities in: "(a) Treasury notes or bonds of the United States, or those for which the faith and credit of the United States are pledged for the payment of principal and interest, (b) any evidence of indebtedness of the government of Guam, (c) Investment certificates of the Federal Home Loan Bank, or (d) such other securities as may be ... approved by the Director of Administration and the Governor of Guam." The fair market value of the pledged securities must be at least ten percent (10%) in excess of the amount of monies deposited with the bank.

Further, to address custodial risk, the Guam Code Annotated requires the custodian to have been in the business of rendering trust custody services for ten or more years, to be organized under the laws of the United States or a state or territory thereof, to have capital and surplus in excess of ten million dollars (\$10,000,000), and to be a member of the Federal Reserve System whose deposits are insured by the Federal Deposit Insurance Corporation. Regardless of the above, any locally chartered bank may act as custodian for the Fund.

(7) Related Party Transactions

At September 30, 2018 and 2017, GGRF was owed employer and member contributions, and interest and penalties receivable by various Government of Guam agencies. At September 30, 2018 and 2017, employer contributions receivable including the unfunded liability totaled \$8,182,606 and \$7,345,488, respectively; member contributions receivable totaled \$2,271,935 and \$1,601,455, respectively; and interest and penalties receivable totaled \$202,039 and \$293,978, respectively.

GOVERNMENT OF GUAM RETIREMENT FUND

Notes to Financial Statements, continued

September 30, 2018 and 2017

(8) Property, Equipment and Land

Property, equipment and land at September 30, 2018 and 2017 were as follows:

	<u>2018</u>	<u>2017</u>
Building	\$ 1,290,889	\$ 1,290,889
Improvements	825,985	825,985
Land	439,428	439,428
Equipment	499,725	485,145
Automobiles	22,732	22,732
Furniture and fixtures	15,887	15,887
Other	7,000	7,000
	<u>3,101,646</u>	<u>3,087,066</u>
Less: Accumulated depreciation	<u>(2,434,990)</u>	<u>(2,348,526)</u>
	<u>\$ 666,656</u>	<u>\$ 738,540</u>

(9) Supplemental Annuities and COLA Payments

Public Law 25-72, passed in September 1999, required the payment of supplemental annuities and cost of living allowances (COLA) to retirees. P.L. 25-72 also specified that these payments were an obligation of the employer and not of the GGRF. The cost of these benefits is to be paid through increased contributions over a period of twenty years.

The GGRF paid certain of these benefits on behalf of the General Fund and autonomous agencies, and collected certain amounts from the General Fund and from autonomous agencies. The excess of the amount paid out over the amount collected was recorded as "Supplemental/COLA benefits receivable" by the GGRF.

During fiscal year 1999, the Government of Guam appropriated \$12 million to pay for a portion of the \$31.4 million that the GGRF paid for supplemental annuities and COLA payments.

However, Public Law 25-122, passed in May 2000, reallocated the \$12 million appropriation collected by GGRF to regular employer contributions. Since the \$12 million reduced the receivable balance in fiscal year 1999, this reallocation resulted in a \$12 million increase in the receivable balance in fiscal year 2000. The offset was recorded as a reduction of employer contributions receivable from the Government of Guam for fiscal year 2000.

Beginning in fiscal year 2000, the receivable for supplemental annuities and COLA payments is being reduced by a portion of the employer contributions received. The percentage used for fiscal years 2018 and 2017 was 1.2016% of covered payroll.

GOVERNMENT OF GUAM RETIREMENT FUND

Notes to Financial Statements, continued

September 30, 2018 and 2017

(9) Supplemental Annuities and COLA Payments, continued

At September 30, 2018 and 2017, the GGRF had Supplemental/COLA benefits receivable of \$20,456,178, and \$26,450,176, respectively. Since the GGRF is simply acting as a paying agent for these benefits, the payment of the benefits and their subsequent collection should not increase or decrease plan net assets.

For financial statement presentation purposes these receivables have been reclassified in 2018 and are reflected as Deferred Assets in the Statements of Fiduciary Net Position.

A history of the transactions follows (amounts rounded to the nearest hundred thousand):

Fiscal Year	Payment of Benefits by GGRF	Collections	Other	Balance
1999	\$ 31,400,000	\$ (4,500,000)	\$ (12,000,000)	\$ 14,900,000
2000	32,300,000	(4,300,000)	12,000,000	54,900,000
2001	34,000,000	(4,700,000)		84,200,000
2002	27,500,000	(3,600,000)		108,100,000
2003		(4,400,000)		103,700,000
2004		(7,200,000)		96,500,000
2005		(4,300,000)		92,200,000
2006		(4,600,000)		87,600,000
2007		(4,600,000)		83,000,000
2008		(5,000,000)		78,000,000
2009		(5,100,000)		72,900,000
2010		(5,300,000)		67,600,000
2011		(5,800,000)		61,800,000
2012		(5,500,000)		56,300,000
2013		(5,500,000)		50,800,000
2014		(6,000,000)		44,800,000
2015		(6,200,000)		38,600,000
2016		(6,000,000)		32,600,000
2017		(6,100,000)		26,500,000
2018		(6,000,000)		20,500,000
	\$ 125,200,000	\$ (104,700,000)	\$ -	

GOVERNMENT OF GUAM RETIREMENT FUND

Notes to Financial Statements, continued

September 30, 2018 and 2017

(10) DB 1.75 Repayment of Contributions for Service Credit

Relative to the implementation of the DB 1.75 Plan effective January 1, 2018, members who elected to participate in the Plan were allowed to repay contributions, which were previously withdrawn as members of the DC Plan, in order to obtain credit for service to which the withdrawals relate. To reclaim such service, members are required to repay to the Retirement Fund the a) total amount(s) withdrawn, plus b) interest commencing on the date(s) of the withdrawal(s) to the date of repayment. The repayment shall be made by (1) single cash payment, (2) transfer of the members' Excess Account Balance in the DC Plan, if any, (3) transfer of funds from the members' Deferred Compensation account, if applicable, (4) installment payments to the Retirement Fund in accordance with established rules, or (5) any combination of option numbers 2, 3, and 4. By no later than June 30, 2018, as applicable, full payment or arrangements for repayment in installments, were required to be made with the Retirement Fund.

At September 30, 2018, the amount owed under these notes was \$3,185,369. There is a corresponding unearned revenue account to offset these notes receivable, since contribution income is recognized on a cash basis as amounts are collected from the members.

(11) Supplemental/COLA Benefit Owed by Government of Guam Agencies

All Government of Guam agencies are obligated to pay retirees for supplemental and COLA benefits. GGRF paid certain supplemental and COLA benefits for other Government of Guam agencies. GGRF will be reimbursed for these benefit payments; accordingly, these benefit payments are reflected as "Supplemental/insurance benefits advanced" in the accompanying statement of net assets.

At September 30, 2018 and 2017, the GGRF had \$1,996,097 and \$2,000,350, respectively in Supplemental/insurance benefits receivable from three Government of Guam agencies.

(12) Risk Management

The Government of Guam Retirement Fund is subject to various risks in the normal course of operations. The Fund protects itself against such risks by purchasing liability insurance from a private company in Guam.

Further, the Fund purchases Directors and Officers Liability insurance from a private company in Guam to protect the Board of Trustees against liability for official actions they take in their capacities as Board members.

GOVERNMENT OF GUAM RETIREMENT FUND

Notes to Financial Statements, continued

September 30, 2018 and 2017

(13) Other Post-Employment Benefits (OPEB) Liability

GovGuam, through its substantive commitment to provide other post-employment benefits (OPEB), maintains a cost-sharing multiple employer defined benefit plan to provide certain post-retirement healthcare benefits to retirees who are members of the GGRF. Under the Plan, known as the GovGuam Group Health Insurance Program, GovGuam provides medical, dental, and life insurance coverage. The retiree medical and dental plans are fully-insured products provided through insurance companies. GovGuam shares in the cost of these plans, with GovGuam's contribution amount set each year at renewal. Current statutes prohibit active and retired employees from contributing different amounts for the same coverage. As such, GovGuam contributes substantially more to the cost of retiree healthcare than to active healthcare. For the life insurance plan, GovGuam provides retirees with \$10,000 of life insurance coverage through an insurance company. Retirees do not share in the cost of this coverage. Because the Plan consists solely of GovGuam's firm commitment to provide OPEB through the payment of premiums to insurance companies on behalf of its eligible retirees, no stand-alone financial report is either available or generated.

During the years ended September 30, 2018 and 2017, the Fund's required contributions to this plan totaled approximately \$693,170 and \$843,807 for each year, respectively.

The effective date for GASB 75 is for fiscal years beginning after June 15, 2017, which is the fiscal year ending September 30, 2018 for the Government of Guam.

GASB 75 allows for measurement of the Total OPEB Liability no earlier than the end of the employer's prior fiscal year and no later than the end of the employer's current fiscal year, consistently applied from period to period. The Government of Guam has elected to report results under GASB 75 with a measurement date of September 30, 2017 for the September 30, 2018 reporting date, the earliest measurement date permitted.

Plan Administration

The Government of Guam administers the retiree health care benefits program – an agent-multiple-employer defined benefit plan that is used to provide postemployment benefits other than pensions (OPEB) for eligible employees.

Plan Membership

At September 30, 2016, OPEB membership consisted of the following:

Inactive plan members or beneficiaries currently receiving benefit payments ¹	7,342
Inactive plan members entitled to put not yet receiving benefit payments	0
Active plan members	<u>10,282</u>
	<u>17,624</u>

¹Per paragraph 34a of GASB 74 and further clarified by Question 4.67 of the 2017-2 GASB 74 Implementation Guide, the total shown for inactive plan members or beneficiaries currently receiving benefit payments does not include covered spouses or other dependents.

GOVERNMENT OF GUAM RETIREMENT FUND

Notes to Financial Statements, continued

September 30, 2018 and 2017

(13) Other Post-Employment Benefits (OPEB) Liability, continued

Benefits Provided

The Government of Guam provides postemployment medical, dental and life insurance benefits to Government retirees, spouses, children, and survivors. Active employees and retirees who waive medical and dental coverage are considered eligible for the life insurance benefit only. GovGuam contributes a portion of the medical and dental premiums, based on a schedule of semi-monthly rates, and reimburses certain Medicare premiums to eligible retirees. Retirees are also required to pay a portion of the medical and dental insurance premiums.

Contributions

No employer contributions are assumed to be made since an OPEB trust has not been established.

Actuarial assumptions

The total OPEB liability determined by an actuarial valuation as of September 30, 2016, rolled forward to the measurement date using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	3.0%
Discount rate	3.63%, net of investment expenses, including inflation
Healthcare cost trend rate	8% for 2016, decreasing 0.25% per year to an ultimate rate of 4.5% for 2030 and later years.
Healthy Retiree mortality rates	RP-2000 Combined Healthy Mortality table, set forward 4 years and 1 year for males and females, respectively.
Disabled Retiree mortality rates	RP-2000 Disabled Mortality Table for males and females.

Discount rate

The discount rate used to measure the total OPEB liability was 3.63%. The projection of cash flows used to determine the discount rate assumed that contributions from the Government will be made in accordance with the plan's funding policy. Based on those assumptions, the OPEB plan's fiduciary net position was projected to be insufficient to make all projected benefit payments of current plan members. Therefore, the 3.63% municipal bond rate was applied to all periods to determine the total OPEB liability.

GOVERNMENT OF GUAM RETIREMENT FUND

Notes to Financial Statements, continued

September 30, 2018 and 2017

(13) Other Post-Employment Benefits (OPEB) Liability, continued

Sensitivity of the Total OPEB Liability to Changes in the Discount Rate

The following presents the total OPEB liability calculated using the current discount rate of 3.63%, as well as what the total OPEB liability would be if it were calculated using a discount rate 1-percentage point lower (2.63%) or 1-percentage point higher (4.63%) than the current rate:

	1% Decrease 2.63%	Discount Rate 3.63%	1% Increase 4.63%
Total OPEB Liability	<u>\$ 2,889,874,882</u>	<u>2,431,048,672</u>	<u>2,063,028,770</u>

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

The following presents the total OPEB liability calculated using the current healthcare cost trend rates as well as what the total OPEB liability would be if it were calculated using healthcare cost trend rates that are 1-percentage point lower (7% year 1 decreasing to 3.5%) or 1-percentage point higher (9% year 1 decreasing to 5.5%) than the current healthcare cost trend rates:

	1% Decrease 7% Year 1 Decreasing to 3.5%	Healthcare Cost Trend Rates 8% Year 1 Decreasing to 4.5%	1% Increase 9% Year 1 Decreasing to 5.5%
Total OPEB Liability	<u>\$ 1,995,890,497</u>	<u>2,431,048,672</u>	<u>2,999,053,425</u>

OPEB Liabilities, OPEB Expense, Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB

At September 30, 2018, the Fund reported a liability of \$11,237,415 for its proportionate share of the OPEB Liability. The basis of the Fund's allocation of the collective OPEB amount is based on the Total OPEB Liability as of the end of the measurement period. At September 30, 2018, the Fund's proportion of the Total OPEB Liability was .46%.

At September 30, 2018 and 2017, the Fund reported deferred outflows of resources and deferred inflows of resources as follows:

	Total 2018		Total 2017	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Changes of assumptions	\$835,567	\$962,858	-	-
Changes in proportion and difference between GGRF contributions and proportionate share	-	255,891	1,059,797	96,014
	<u>\$835,567</u>	<u>\$1,218,849</u>	<u>\$1,059,797</u>	<u>\$96,014</u>

GOVERNMENT OF GUAM RETIREMENT FUND

Notes to Financial Statements, continued

September 30, 2018 and 2017

(13) Other Post-Employment Benefits (OPEB) Liability, continued

The OPEB Expense and deferred outflows and inflows of resources primarily result from changes in the components of the Total OPEB liability (TOL). Most changes in the TOL are included in the OPEB Expense in the period of the change, including service cost, interest on total OPEB liability and changes in benefit terms. Other changes in the total OPEB liability are included in OPEB Expense over the current and future periods. These include the effects on the total OPEB liability of changes of economic and demographic assumptions and differences between expected and actual experience.

Other amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB at September 30, 2018 will be recognized in OPEB expense (recovery) as follows:

<u>Year Ending</u> <u>September 30,</u>	<u>Amount</u>
2018	(\$38,756)
2019	(38,756)
2020	(38,756)
2021	(38,756)
2022	(223,708)
Thereafter	(4,550)
	<u>(\$383,282)</u>

(14) DB 1.75

In accordance with Public Law 33-186:

1. The Defined Benefit 1.75% Plan became effective on January 1, 2018. DB 1.75 Plan members are required to contribute 9.5% of their base salary to the DB 1.75 Plan and 1% of base salary to the 457 Plan, and are fully vested for benefits upon attaining five (5) years of credited service. Members may retire with full benefits at age 62 and 5 years of credited service, or at age 55 with 25 years of credited service with reduced benefits, or at age 60 and 5 years of credited service without survivor benefits.
2. The DC Plan member and employer contribution rates increase from five percent (5%) to six and two-tenths percent (6.2%), effective January 1, 2018.
3. The period used to amortize the unfunded actuarial accrued liability (UAAL) was extended by two years, from an end date of May 1, 2031 to an end date of May 1, 2033, effective January 1, 2018.
4. As of the December 31, 2017 deadline for participants to elect to transfer to the DB 1.75 Plan or GRSP, approximately 3,379 of the 8,947 DC Plan participants elected to transfer to the DB 1.75 Plan. On January 23, 2018, the DC Plan funds of employees who elected to transfer to the DB 1.75 Plan, totaling approximately \$229M, were deposited into the Fund's Northern Trust Administrative Account, and allocated to the Fund's managers/cash accounts based on the asset reallocation.

GOVERNMENT OF GUAM RETIREMENT FUND

Notes to Financial Statements, continued

September 30, 2018 and 2017

(15) Restatement of 2017 Financial Statements

The restatements of the Fiscal Year 2017 financial statements are due to the implementation of GASB 73 and GASB 74.

(16) Subsequent Events

The market value of the Fund's invested assets in the DB plan decreased from \$2.0 billion at September 30, 2018 to approximately \$1.9 billion at January 31, 2019. This is a decrease of \$98.4 million, or about 4.9%. DC plan assets decreased from \$346.6 million at September 30, 2018 to \$332.2 million at January 31, 2019. The \$14.4 million (4.2%) decrease is due to market fluctuations.

GOVERNMENT OF GUAM RETIREMENT FUND

Schedule of Changes in Net Pension Liability - DB Plan

September 30, 2013 to 2017

	2013	2014	2015	2016	2017
	<u>Valuation</u>	<u>Valuation</u>	<u>Valuation</u>	<u>Valuation</u>	<u>Valuation</u>
Total Pension Liability - Beginning of Year	\$ 2,811,399,525	\$ 2,829,439,663	\$ 3,112,295,398	\$ 3,249,042,023	\$ 3,245,313,070
Service cost	21,089,199	22,323,496	23,167,161	22,042,055	19,309,007
Member contributions	-	-	-	-	-
Interest on the total pension liability	190,558,974	191,594,023	213,116,889	210,570,472	210,182,547
Changes of benefit terms	-	-	-	-	-
Differences between actual and expected experience with regard to economic or demographic factors	-	27,739,034	58,338,457	(19,460,258)	(11,851,500)
Changes of assumptions	-	-	71,752,411	17,912,379	(33,969,738)
Benefit payments	(193,608,035)	(199,534,108)	(229,628,293)	(234,793,601)	(239,397,192)
Total changes	<u>18,040,138</u>	<u>42,122,445</u>	<u>136,746,625</u>	<u>(3,728,953)</u>	<u>(55,726,876)</u>
Total Pension Liability - End of Year	<u>\$ 2,829,439,663</u>	<u>\$ 2,871,562,108</u>	<u>\$ 3,249,042,023</u>	<u>\$ 3,245,313,070</u>	<u>\$ 3,189,586,194</u>
Fiduciary Net Position - Beginning of Year	\$ 1,391,421,887	\$ 1,526,135,027	\$ 1,625,255,354	\$ 1,576,428,084	\$ 1,647,181,257
Contributions from employers	121,940,930	134,106,867	159,053,013	148,395,481	148,981,296
Member contributions	16,290,014	16,626,009	15,245,935	13,812,825	13,476,517
Net investment income	192,776,061	150,599,955	9,560,987	146,235,031	192,765,573
Benefit payments	(193,608,035)	(199,534,108)	(229,628,293)	(234,793,601)	(239,397,192)
Administrative expense	(2,685,830)	(2,678,396)	(3,058,912)	(2,896,563)	(3,817,771)
Total changes	<u>134,713,140</u>	<u>99,120,327</u>	<u>(48,827,270)</u>	<u>70,753,173</u>	<u>112,008,423</u>
Fiduciary Net Position - End of Year	<u>\$ 1,526,135,027</u>	<u>\$ 1,625,255,354</u>	<u>\$ 1,576,428,084</u>	<u>\$ 1,647,181,257</u>	<u>\$ 1,759,189,680</u>
Net Pension Liability - End of Year	<u>\$ 1,303,304,636</u>	<u>\$ 1,246,306,754</u>	<u>\$ 1,672,613,939</u>	<u>\$ 1,598,131,813</u>	<u>\$ 1,430,396,514</u>
Fiduciary Net Position as a % of Total Pension Liability	53.94%	56.60%	48.52%	50.76%	55.15%
Covered employee payroll	\$ 460,347,780	\$ 504,943,471	\$ 511,366,411	\$ 506,322,283	\$ 508,300,483
Net Pension Liability as a % of Covered Employee Payroll	283.11%	246.82%	327.09%	315.64%	281.41%

Note 1 - Liabilities are shown in this column as originally reported as of 9/30/14, without regards to Ad Hoc COLAs or Supplemental Annuity Payments.

This schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

See accompanying independent auditors' report.

GOVERNMENT OF GUAM RETIREMENT FUND

Schedule of Changes in Net Pension Liability - DC Plan

September 30, 2013 to 2017

	2013 <u>Valuation</u>	2014 <u>Valuation</u>	2015 <u>Valuation</u>	2016 <u>Valuation</u>	2017 <u>Valuation</u>
Total Pension Liability - Beginning of Year	\$ n/a	\$ n/a	\$ 46,880,986	\$ 52,115,736	\$ 61,688,067
Service cost	n/a	n/a	2,623,748	3,074,446	3,136,456
Member contributions	n/a	n/a	-	-	-
Interest on the total pension liability	n/a	n/a	1,885,957	1,851,695	1,957,356
Changes of benefit terms	n/a	n/a	-	-	-
Differences between actual and expected experience with regard to economic or demographic factors	n/a	n/a	(587,552)	1,265,643	1,904,493
Changes of assumptions	n/a	n/a	2,510,997	4,802,047	(4,594,882)
Benefit payments	n/a	n/a	(1,198,400)	(1,421,500)	(1,646,000)
Total changes	<u>n/a</u>	<u>n/a</u>	<u>5,234,750</u>	<u>9,572,331</u>	<u>757,423</u>
Total Pension Liability - End of Year	<u>\$ n/a</u>	<u>\$ n/a</u>	<u>\$ 52,115,736</u>	<u>\$ 61,688,067</u>	<u>\$ 62,445,490</u>
Fiduciary Net Position - Beginning of Year	\$ n/a	\$ n/a	\$ -	\$ -	\$ -
Contributions from employers	n/a	n/a	1,198,400	1,421,500	1,646,000
Member contributions	n/a	n/a	-	-	-
Net investment income	n/a	n/a	-	-	-
Benefit payments	n/a	n/a	(1,198,400)	(1,421,500)	(1,646,000)
Administrative expense	n/a	n/a	-	-	-
Total changes	<u>n/a</u>	<u>n/a</u>	<u>-</u>	<u>-</u>	<u>-</u>
Fiduciary Net Position - End of Year	<u>\$ n/a</u>	<u>\$ n/a</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Net Pension Liability - End of Year	<u>\$ n/a</u>	<u>\$ n/a</u>	<u>\$ 52,115,736</u>	<u>\$ 61,688,067</u>	<u>\$ 62,445,490</u>
Fiduciary Net Position as a % of Total Pension Liability	n/a	n/a	0.00%	0.00%	0.00%
Covered employee payroll	n/a	n/a	355,895,521	365,069,550	376,785,976
Net Pension Liability as a % of Covered Employee Payroll	n/a	n/a	14.64%	16.90%	16.57%

This schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

See accompanying independent auditors' report.

GOVERNMENT OF GUAM RETIREMENT FUND

Schedule of Employer Allocations by Component Unit - DB Plan

For the year ended September 30, 2017

DEFINED BENEFIT PLAN

<u>Component Unit (Employer)</u>	<u>Expected Defined Benefit Plan Contributions</u>	<u>% Share</u>	<u>Allocated Net Pension Liability for Retirement Annuity Only</u>	<u>Ad hoc COLA/ Supplemental Annuity Contributions</u>	<u>% Share</u>	<u>Allocated Net Pension for Ad Hoc COLA and Supplemental Annuity</u>	<u>Combined Allocated Net Pension Liability</u>
Government of Guam General Fund	\$ 33,809,492	28.06%	\$ 320,526,174	\$ 8,829,611	37.25%	\$ 107,321,594	\$ 427,847,768
Office of the Attorney General	2,534,142	2.10%	24,024,579	135,666	0.57%	1,648,980	25,673,560
Mayors' Council of Guam	1,499,206	1.24%	14,213,013	114,380	0.48%	1,390,257	15,603,270
Department of Chamorro Affairs	358,009	0.30%	3,394,054	125,864	0.53%	1,529,844	4,923,898
Guam Educational Telecommunications Corporation	44,548	0.04%	422,331	4,000	0.02%	48,619	470,950
Government of Guam Retirement Fund	460,071	0.38%	4,361,639	75,666	0.32%	919,703	5,281,342
Guam Community College	2,920,516	2.42%	27,687,544	614,133	2.59%	7,464,622	35,152,166
Guam Department of Education	36,105,610	29.97%	342,294,195	6,772,437	28.57%	82,317,193	424,611,387
Guam Economic Development Authority	428,406	0.36%	4,061,443	30,714	0.13%	373,321	4,434,764
Guam Housing and Urban Renewal Authority	1,004,817	0.83%	9,526,027	160,613	0.68%	1,952,207	11,478,234
Guam Housing Corporation	275,957	0.23%	2,616,172	49,442	0.21%	600,954	3,217,125
Guam International Airport Authority	2,959,161	2.46%	28,053,913	222,046	0.94%	2,698,910	30,752,823
Guam Legislature	530,563	0.44%	5,029,928	423,262	1.79%	5,144,642	10,174,571
Guam Memorial Hospital Authority	10,964,359	9.10%	103,946,075	1,509,768	6.37%	18,350,836	122,296,911
Guam Power Authority	6,207,559	5.15%	58,849,896	1,150,740	4.85%	13,986,942	72,836,838
Guam Visitors Bureau	430,606	0.36%	4,082,300	20,000	0.08%	243,095	4,325,395
Guam Waterworks Authority	3,491,479	2.90%	33,100,479	897,530	3.79%	10,909,240	44,009,718
Judiciary of Guam	4,945,464	4.10%	46,884,781	478,366	2.02%	5,814,415	52,699,196
Port Authority of Guam	4,196,268	3.48%	39,782,133	961,271	4.05%	11,683,996	51,466,129
Office of Public Accountability	195,955	0.16%	1,857,724	4,000	0.02%	48,619	1,906,343
University of Guam	7,123,674	5.91%	67,534,997	1,127,061	4.75%	13,699,135	81,234,131
	<u>\$ 120,485,862</u>	<u>100.00%</u>	<u>\$ 1,142,249,393</u>	<u>\$ 23,706,570</u>	<u>100.00%</u>	<u>\$ 288,147,121</u>	<u>\$ 1,430,396,519</u>

See accompanying independent auditors' report.

GOVERNMENT OF GUAM RETIREMENT FUND

Schedule of Employer Allocations by Component Unit - DC plan

For the year ended September 30, 2017

<u>Component Unit (Employer)</u>	Actual DC Ad hoc COLA Contributions	Allocation Percentage	Allocated Net Pension Liability
Government of Guam General Fund	\$ 550,000	33.41%	\$ 20,865,747
Office of the Attorney General	28,000	1.70%	1,062,256
Mayors' Council of Guam	28,000	1.70%	1,062,256
Department of Chamorro Affairs	12,000	0.73%	455,253
Guam Educational Telecommunications Corporation	2,000	0.12%	75,875
Government of Guam Retirement Fund	10,000	0.61%	379,377
Guam Community College	20,000	1.22%	758,754
Guam Department of Education	442,000	26.85%	16,768,473
Guam Economic Development Authority	6,000	0.36%	227,626
Guam Housing and Urban Renewal Authority	22,000	1.34%	834,630
Guam Housing Corporation	6,000	0.36%	227,626
Guam International Airport Authority	36,000	2.19%	1,365,758
Guam Legislature	12,000	0.73%	455,253
Guam Memorial Hospital Authority	126,000	7.65%	4,780,153
Guam Power Authority	98,000	5.95%	3,717,897
Guam Visitors Bureau	6,000	0.36%	227,626
Guam Waterworks Authority	38,000	2.31%	1,441,633
Judiciary of Guam	28,000	1.70%	1,062,256
Port Authority of Guam	84,000	5.10%	3,186,769
University of Guam	92,000	5.59%	3,490,270
	<u>\$ 1,646,000</u>	<u>100.00%</u>	<u>\$ 62,445,490</u>

See notes to GASB 68/73 schedules.

GOVERNMENT OF GUAM RETIREMENT FUND

Schedule of Contributions

September 30, 2013 to 2017

Plan Year Ending September 30	Actuarially Determined Contribution	Actual Employer Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contribution as a % of Covered Payroll
2017	\$ 125,275,000	\$ 125,275,000	\$ -	\$ 508,300,000	24.65%
2016	124,419,000	124,419,000	-	506,322,000	24.57%
2015	134,506,000	134,506,000	-	511,366,000	26.30%
2014	134,107,000	134,107,000	-	504,943,000	26.56%
2013	121,698,000	121,941,000	(243,000)	460,348,000	26.49%

Actuarially determined contribution rates are calculated as of September 30, two years prior to the end of the fiscal year in which contributions are reported. The methods and assumptions used to determine contribution rates are as follows:

Actuarial cost method	Entry age
Amortization method	Level percentage of payroll, closed
Remaining amortization period	May 1, 2031 (14.58 years remaining as of September 30, 2016)
Asset valuation method	3-year smoothed market value (effective September 30, 2009)
Inflation	2.75% per year
Total payroll growth	2.75% per year
Salary increases	7.5% per year for the first 5 years of service, 6% for 5-10 years, 5% for 11-15 years and 4.0% for service over 15 years.
Investment rate of return	7.00%, net of investment expenses, including inflation of 2.75%
Retirement age	50% probability of retirement upon first eligibility for undreduced retirement. Thereafter, the probability of retirement is 20% for each year until age 75, and increases to 100% at age 70.
Mortality	RP-2000 healthy morality table (males +3, females +2). Mortality for disabled lives is the RP 2000 disability mortality (males +6, females +4). Both tables are projected generationally from 2016 using 30% of Scale BB.
Other information	Actuarial assumptions are based upon periodic experience studies. The last experience study reviewed experience from 2011-2015.

This schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

See accompanying independent auditors' report.

GOVERNMENT OF GUAM RETIREMENT FUND

Schedule of Investment Returns

September 30, 2013 to 2017

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Annual money-weighted rate of return, net of investment expense	14.14%	10.04%	0.60%	9.51%	11.99%

This schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

See accompanying independent auditors' report.

GOVERNMENT OF GUAM RETIREMENT FUND

Schedule of Changes in Total Other Post Employment Benefits (OPEB) Liability

September 30, 2016 to 2017 Measurement Dates

	<u>2016</u> <u>Valuation</u>	<u>2017</u> <u>Valuation</u>
Total OPEB Liability - Beginning of Year	\$ 2,133,923,275	\$ 2,532,753,040
Service cost	87,158,663	108,634,675
Interest	81,647,699	80,151,782
Changes of benefit terms	-	-
Differences between actual and expected experience	-	-
Changes of assumptions	270,694,071	(249,820,157)
Benefit payments	(40,670,668)	(40,670,668)
Total Changes	398,829,765	(101,704,368)
Total OPEB Liability - End of Year	\$ 2,532,753,040	\$ 2,431,048,672
Covered payroll as of valuation date	\$ 474,098,955	\$ 474,098,955
Total OPEB liability as a percentage of covered payroll	534.22%	512.77%
Discount rate:	3.058%	3.63%

This schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

See accompanying independent auditors' report.

GOVERNMENT OF GUAM RETIREMENT FUND

Schedule of Other Post Employment Benefits (OPEB) Liability

For the year ended September 30, 2017

Component Unit (Employer)	Proportionate Share	Total OPEB Share
Primary Government		
GovGuam Line Agencies	33.76%	\$ 820,620,484
GovGuam Retirement Fund	0.46%	11,237,415
Guam Legislature	0.66%	16,009,003
Guam Department of Education	29.89%	726,529,256
Public Defender Service Corporation	0.49%	11,882,453
Unified Courts of Guam	2.59%	63,008,285
Guam Telephone Authority	0.99%	23,992,237
Total Primary Government	68.83%	1,673,279,133
Component Units:		
Antonio B. Won Pat International Airport Authority	1.92%	46,614,484
Guam Community College	2.05%	49,740,344
Guam Economic Development Authority	0.16%	3,875,385
Guam Housing Corporation	0.46%	11,223,930
Guam Housing and Urban Renewal Authority	0.61%	14,924,532
Guam Memorial Hospital Authority	7.32%	178,049,315
Guam Power Authority	6.00%	145,955,861
Guam Visitors Bureau	0.23%	5,672,967
Guam Waterworks Authority	3.66%	88,950,661
Port Authority of Guam	3.49%	84,786,658
University of Guam	5.16%	125,480,519
KGTF	0.10%	2,494,883
Total Component Units	31.17%	757,769,539
Total	100.00%	\$ 2,431,048,672

See accompanying independent auditors' report.

GOVERNMENT OF GUAM RETIREMENT FUND

Schedule of Employer Contributions (OPEB)

September 30, 2016 to 2017

Plan Year Ending <u>September 30</u>	Actuarially Determined <u>Contribution</u>	Contributions in relation to the actuarially determined <u>contribution</u>	Contribution Deficiency <u>(Excess)</u>	Covered <u>Payroll</u>	Contribution as a % of <u>Covered Payroll</u>
2017	\$ 242,141,492	\$ 40,670,668	\$ 201,470,824	\$ 474,098,955	8.58%
2016	209,503,758	40,670,668	168,833,090	474,098,955	8.58%

Actuarially determined contributions are determined as of October 1, one year prior to the end of the fiscal year in which contributions are reported. Methods and assumptions used to determine contributions are as follows:

Actuarial cost method	Entry age normal
Amortization method	Level dollar amount over 30 years on an open amortization period
Amortization period	30 years
Asset valuation method	Market value
Inflation	3.00%
Healthcare cost trend rates	8.00% for 2016, decreasing 0.25% per year to an ultimate rate of 4.5% for 2030 and later years.

This schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

See accompanying independent auditors' report.

GOVERNMENT OF GUAM RETIREMENT FUND

Supplementary Schedule of Administrative and General Expenses

September 30, 2018 and 2017

	Defined Benefit <u>Plan</u>	Defined Contribution <u>Plan</u>	Total <u>2018</u>	Total <u>2017</u>
Salaries and wages	\$ 1,713,451	195,000	1,908,451	2,029,885
Third party administrator fees	-	914,017	914,017	1,107,358
Insurance	342,953	314,120	657,073	849,282
Pension expense	92,420	376,514	468,934	610,598
OPEB expense	693,170	-	693,170	843,807
Computer program services/maintenance	380,160	42,240	422,400	243,000
Retiree supplemental/COLA	207,959	20,889	228,848	251,392
Legal fees	121,406	80,758	202,164	252,437
Actuary fees	188,810	-	188,810	156,748
Depreciation	84,555	1,909	86,464	85,791
Repairs and maintenance	45,996	29,183	75,179	65,261
Utilities	36,388	37,123	73,511	78,150
Audit fees	42,750	14,250	57,000	40,000
Office supplies	33,485	3,859	37,344	12,903
Travel and transportation	17,630	14,444	32,074	25,611
Postage	20,394	7,411	27,805	11,976
Medicare contribution	22,680	4,290	26,970	28,530
Proxy voting services	25,000	-	25,000	25,000
Communications	17,546	1,578	19,124	18,349
Printing and publications	14,708	3,677	18,385	26,992
Equipment rental	11,049	5,442	16,491	16,660
Board of trustees expenses	8,971	5,318	14,289	14,245
Training	7,305	2,435	9,740	8,465
Miscellaneous	4,857	2,201	7,058	16,499
Medical exams	4,480	-	4,480	3,986
Bad debt related to notes receivable	4,066	-	4,066	2,835
Computers supplies and software	1,062	-	1,062	2,052
	<u>\$ 4,143,251</u>	<u>2,076,658</u>	<u>6,219,909</u>	<u>6,827,812</u>

See accompanying independent auditors' report.

GOVERNMENT OF GUAM RETIREMENT FUND

Supplementary Schedule of Personnel Costs

September 30, 2018 and 2017

	<u>2018</u>	<u>2017</u>
Salaries and wages	\$ 1,908,451	\$ 2,029,885
Employer's retirement contribution	468,934	610,598
Medicare contribution	<u>26,970</u>	<u>28,530</u>
	<u>\$ 2,404,355</u>	<u>\$ 2,669,013</u>
Average number of employees	43	40
Average cost per employee	\$ 55,915	\$ 66,725

See accompanying independent auditors' report.

GOVERNMENT OF GUAM RETIREMENT FUND

Supplementary Schedule of Personnel Count - Public Law 28-150: Section 45

September 30, 2018 and 2017

	Full Time Employees		Total Salaries & Wages Expended
	During FY 2018	As of September 30, 2018	
Director's Office	3	2	\$ 180,340
Administrative Services	5	5	213,586
Accounting / Investments	17	22	887,905
Members and Benefits Services	18	18	626,620
	<u>43</u>	<u>47</u>	<u>\$ 1,908,451</u>

	Full Time Employees		Total Salaries & Wages Expended
	During FY 2017	As of September 30, 2017	
Director's Office	3	3	\$ 188,074
Administrative Services	5	5	204,156
Accounting / Investments	17	16	975,429
Members and Benefits Services	18	21	662,226
	<u>43</u>	<u>45</u>	<u>\$ 2,029,885</u>

See accompanying independent auditors' report.

GOVERNMENT OF GUAM RETIREMENT FUND

Supplementary Schedule of Other Receivables - Defined Benefit Plan

September 30, 2018 and 2017

	<u>2018</u>	<u>2017</u>
Benefit overpayments	\$ 453,833	\$ 446,857
Member rate differential	<u>172,395</u>	<u>190,897</u>
	<u>\$ 626,228</u>	<u>\$ 637,754</u>

See accompanying independent auditors' report.

GOVERNMENT OF GUAM RETIREMENT FUND

Supplementary Schedule of Receivables by Agency - Defined Benefit Plan

September 30, 2018

Agency	Employer Contributions	Employer Contributions (Unfunded Liability)	Member Contributions	Interest & Penalties	Retiree Supplemental Benefits & Insurance	TOTAL
Department of Administration (General Fund)	2,081,125	580,166	739,019	89,496	1,963,804	5,453,610
Guam Department of Education	1,185,267	1,267,669	413,619	63,575	-	2,930,130
Guam Memorial Hospital Authority	398,011	449,332	153,783	30,434	-	1,031,560
University of Guam	203,712	133,287	71,549	18,534	-	427,082
Guam Power Authority	227,143	70,348	79,672	-	32,293	409,456
Supreme Court of Guam	148,980	77,052	56,640	-	-	282,672
Port Authority of Guam	123,627	60,402	42,592	-	-	226,621
Guam Waterworks Authority	82,923	81,976	29,917	-	-	194,816
Guam Airport Authority	95,982	30,562	33,066	-	-	159,610
Guam Community College	87,491	35,426	30,297	-	-	153,214
Guam Housing & Urban Renewal Authority	74,497	9,552	25,687	-	-	109,736
Public Defender	19,009	13,548	6,595	-	-	39,152
Guam Visitors Bureau	15,092	4,540	5,152	-	-	24,784
Guam Legislature	12,369	6,901	4,222	-	-	23,492
Guam Housing Corp	12,142	3,938	4,421	-	-	20,501
Guam Economic Development Authority	10,043	6,738	3,429	-	-	20,210
 Total	 <u>\$ 4,777,413</u>	 <u>\$ 2,831,437</u>	 <u>\$ 1,699,660</u>	 <u>\$ 202,039</u>	 <u>\$ 1,996,097</u>	 <u>\$ 11,506,646</u>

See accompanying independent auditors' report.

GOVERNMENT OF GUAM RETIREMENT FUND

Supplementary Schedule of Receivables by Agency - Defined Benefit Plan

September 30, 2017

Agency	Employer Contributions	Employer Contributions (Unfunded Liability)	Member Contributions	Interest & Penalties	Retiree Supplemental Benefits & Insurance	TOTAL
Department of Administration (General Fund)	963,529	997,923	342,443	230,409	1,968,057	4,502,361
Guam Department of Education	760,528	2,103,915	263,600	63,569	-	3,191,612
Guam Memorial Hospital Authority	77,582	345,731	26,798	-	-	450,111
University of Guam	92,252	187,864	32,386	-	-	312,502
Guam Power Authority	82,411	158,796	28,796	-	32,293	302,296
Supreme Court of Guam	61,828	136,012	23,586	-	-	221,426
Port Authority of Guam	113	113,890	77,656	-	-	191,659
Guam Waterworks Authority	30,063	105,574	12,757	-	-	148,394
Guam Airport Authority	44,518	70,292	15,433	-	-	130,243
Guam Community College	31,231	81,564	10,825	-	-	123,620
Guam Housing & Urban Renewal Authority	26,128	26,688	9,056	-	-	61,872
Public Defender	7,994	22,618	2,771	-	-	33,383
Guam Visitors Bureau	2,725	13,231	945	-	-	16,901
Guam Legislature	2,729	16,359	946	-	-	20,034
Guam Housing Corp	4,988	8,047	1,729	-	-	14,764
Guam Economic Development Authority	3,740	12,786	1,296	-	-	17,822
Total	\$ 2,192,359	\$ 4,401,290	\$ 851,023	\$ 293,978	\$ 2,000,350	\$ 9,739,000

See accompanying independent auditors' report.

GOVERNMENT OF GUAM RETIREMENT FUND

Deferred Compensation Plan

Statement of Fiduciary Net Position

September 30, 2018

	<u>Total</u>
<u>ASSETS</u>	
Investments, at fair value:	\$ 76,072,596
Employee loans receivable	3,290,472
Cash and cash equivalents	<u>103,468</u>
Total assets	<u>79,466,536</u>
<u>LIABILITIES</u>	
Accounts payable and accrued expenses	<u>-</u>
	<u>-</u>
Net position - Held in trust for benefits	<u>\$ 79,466,536</u>

Statement of Changes in Fiduciary Net Position

Year ended September 30, 2018

	<u>Total</u>
Additions:	
Member contributions	\$ 11,249,403
Net appreciation in fair value of investments	2,763,516
Interest	<u>3,638,209</u>
	6,401,725
Less investment expenses	<u>88,750</u>
Net investment income	<u>6,312,975</u>
Total Additions	<u>17,562,378</u>
Deductions:	
Benefits	<u>4,974,875</u>
Total Deductions	<u>4,974,875</u>
Change in net position	12,587,503
Net position - beginning of year	<u>66,879,033</u>
Net position - end of year	<u>\$ 79,466,536</u>

See accompanying independent auditors' report.