

Basic Financial Statements and Required Supplementary Information June 30, 2018 and 2017





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Table of Contents

	Pages
Independent Auditors' Report	1-3
Management's Discussion and Analysis (Unaudited)	4-14
Basic Financial Statements:	
Statements of Fiduciary Net Position Statements of Changes in Fiduciary Net Position Notes to Basic Financial Statements	15 16 17-38
Required Supplementary Information:	
Exhibit A - Schedule of Changes in Net Pension Liability (Unaudited)	39
Exhibit B - Schedule of Net Pension Liability (Unaudited)	40
Exhibit C - Schedule of Employer Contributions (Unaudited)	41
Exhibit D - Schedule of Annual Money - Weighted Rate of Return on Investments (Unaudited)	42
Report on Internal Control Over Financial Reporting And on Compliance and Other Matters Based on an Audit of the Financial Statements Performed in Accordance with Government Auditing Standards	43-44



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INDEPENDENT AUDITORS' REPORT

To: The Board of Trustees of

The University of Puerto Rico

Retirement System

We have audited the accompanying financial statements of the University of Puerto Rico Retirement System as of and for the years ended June 30, 2018 and 2017, and the related notes to the financial statements, which collectively comprise the System's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in conformity 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 of material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America 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 fiduciary net position of the System as of June 30, 2018 and 2017, and the changes in its fiduciary net position for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

Significant Uncertainties

The accompanying financial statements have been prepared assuming the System will continue as a going concern.

As further described in Note 3 to these financial statements, the System is highly dependent on funding from the University of Puerto Rico (the University), which receives its funding from the Commonwealth of Puerto Rico (the Commonwealth) appropriations to finance its operations. The financial difficulties experienced by the Commonwealth, including uncertainty as to its ability to fully satisfy its obligations, also raises substantial doubt about its ability to continue funding of the System and paying the required contributions.

As further described in Note 3 to these financial statements, the University's Fiscal Plan, as certified by the Fiscal Oversight Management Board for Puerto Rico, includes a Pension Reform that proposes a freeze in the pension and a transition from a defined benefit to a defined contribution pension plan with a 50% match on member contributions up to 2%.

All these events together create a high level of uncertainty about the System's ability to continue as a going concern in the form it is currently structured. The financial statements do not include any adjustments that may result from these uncertainties.

Other Matter

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis on pages 4 to 14, the Schedule of Changes in Net Pension Liability, the Schedule of Net Pension Liability, the Schedule of Employer Contributions and the Schedule of Annual Money-Weighted Rate of Return on Investments on pages 39 to 42, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.



Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated December 2, 2019, on our consideration of the System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the System's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the System's internal control over financial reporting and compliance.

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San Juan, Puerto Rico December 2, 2019, except for Note 9, and the Required Supplementary Information included in Exhibit A to C, that are dated February 24, 2020.

Stamp No. E407289 was affixed to the original of this report.

Management's Discussion and Analysis (Unaudited)
As of June 30, 2018

Introduction

The University of Puerto Rico (the "University") was organized through Law No. 135 of May 7, 1942, known as the Act of the University (superseded by Act Number 1 of January 20, 1966 as amended (the "Act No. 1")), as a public corporation and governmental instrumentality of the Commonwealth of Puerto Rico (the "Commonwealth"). On February 16, 1945, the University's Council on Higher Education, with the University's endorsement and consent, enacted a resolution to create, maintain, finance and manage the University of Puerto Rico Retirement Plan (the "System") effective January 1, 1945 in order to provide pension benefits to all university employees. The Act No. 1 designated the Governing Board as Trustee with the faculty to govern the System. In addition, the Governing Board appointed the System's Board to oversee the System administration and an Executive Director to manage its everyday affairs in accordance with the faculties and provisions of Certification Number 27 (1973-74), as amended. The System has functioned pursuant to the terms and conditions of Act No. 1 and Certification Number 27.

Our discussion and analysis of the System's financial performance provides an overview of the System's financial activities for the fiscal years ended June 30, 2018 and 2017.

Financial Highlights

- During fiscal year 2018, the System reflected a return on investments of 8.43%, as compared to the benchmark's return of 7.49%.
- Sustainability ratio increased from 40.8% in fiscal year 2013, to 43.9% in fiscal year 2014, 46.6% in fiscal year 2015, 47.80% in fiscal year 2016, 48.90% in fiscal year 2017, and experimented a reduction to 43.7% for the fiscal year 2018.
- Fund performance ranked 11th and 9th during the last 36 and 60 months against the Callan Associates peer comparison nationwide Callan Associates Public Fund database for Fiscal Year June 2018. Database consists of approximately 300+ public funds in the past 24 months.
- The System has experienced an increase in net assets for the past 3 years, 1.21% increase from 2017 to 2018 and \$4.41% increase from 2016 to 2017; assets for years 2018, 2017 and 2016 are \$1,408,375,956, \$1,391,500,020, \$1,332,667,782, respectively (reported as net position). Marketable securities are held in a separate account to meet future benefit payments.
- The component of Additions to the Changes in Fiduciary Net Position in the year 2018 is comprised of contributions of \$109,223,430, and net investments income of \$110,356,900.

Management's Discussion and Analysis (Unaudited)
As of June 30, 2018

- The System administered \$2,200,950 in reimbursements from the University of Puerto Rico for retirees' medical insurance (maximum reimbursed amount of \$125 per retiree per month) from July 2017 to December 2017. A separate bank account was create to manage the reference funds outside the operations of the Retirement System Trust. From January 2018 to June 2018 the System administrated in a separate account \$9,806,849 for retirees medical insurance.
- Total additions to Fiduciary Net Position in fiscal year 2018 were \$219,580,331 compared to \$251,483,109 in fiscal year 2017, \$176,361,081 in fiscal year 2016, \$211,428,495 in fiscal year 2015 and \$343,958,751 in fiscal year 2014. The decrease in additions for fiscal year 2018 when compared to previous year was due to several factors: a decrease in employer and individual contributions of \$6.1 million and \$3.2 million respectively, a decrease in net appreciation in fair value of investments of \$23.1 million and an increase in investment expenses of \$0.4 million.
- Deductions to Fiduciary Net Position in fiscal year 2018 were \$202,704,395 compared to \$192,650,871 in fiscal year 2017, and \$186,689,573 in fiscal year 2016. The increase was mainly caused by benefits paid to participants of \$198,246,775 in fiscal year 2018 compared to \$188,310,782 in fiscal year 2017, \$182,614,074 in fiscal year 2016. Retirees receiving benefits have been increasing consistently over 2% per year for the past 5 years; 8,816 at the end of fiscal year 2018, 8,596 at the end of fiscal year 2017, 8,418 at the end of fiscal year 2016, 8,247 at the end of fiscal year 2015 and 8,082 in fiscal year 2014.

The Statement of Fiduciary Net Position and the Statement of Changes in Fiduciary Net Position

These statements include all assets and liabilities using the economic resources measurement focus and the accrual basis of accounting. Under the accrual basis of accounting, all revenues and expenses are taken into account regardless of when cash is received or paid. The Statement of Fiduciary Net Position presents plan assets and liabilities, with the difference between the two reported as net position. Over time, increases and decreases in net position measure whether the System's financial position is improving or deteriorating. The statement of Changes in Fiduciary Net Position presents how the System's net position changed during the period to determine whether the System is becoming financially stronger or weaker and to understand changes over time in the funded status of the System.

Management's Discussion and Analysis (Unaudited) As of June 30, 2018

Financial Analysis

The net assets of the System during the year ended June 30, 2018 increased by approximately \$16.88 million a 1.21% increase over prior year (see Statements of Changes in Fiduciary Net Position for details). For fiscal year 2018 total assets increased \$19.66 million or 1.30% from prior year thanks to the increase in fair value of investments. For fiscal year 2017 total assets increased \$61.74 million or 4.27% from prior year.

Statements of Fiduciary Net Position

	V otestania	June 30, 2016	June 30, 2017	June 30, 2018	2016-2017 Percentage Change	2017-2018 Percentage Change
Assets						
Cash	\$	21,455,730	\$ 24,039,199	\$ 23,069,338	12.04%	-4.03%
Receivables		37,111,826	57,973,406	63,018,351	56.21%	8.70%
Investments		1,112,522,115	1,175,218,142	1,187,841,312	5.64%	1.07%
Alternative investment		89,323,115	94,796,295	101,139,224	6.13%	6.69%
Securities lending cash collateral		41,192,853	22,101,269	29,043,981	-46.35%	31.41%
Loans to plan members		127,624,233	119,008,846	107,811,812	-6.75%	-9.41%
Other net of allowances		13,119,934	11,037,091	11,297,940	-15.88%	2.36%
Capital assets-net		3,326,222	3,240,420	3,853,348	-2.58%	18.92%
Total assets	\$	1,445,676,028	\$ 1,507,414,668	\$ 1,527,075,306	4.27%	1.30%
Liabilities						
Accounts payable and accrued expenses	\$	6,086,875	\$ 6,734,706	\$ 12,140,966	10.64%	80.27%
Obligations under securities lending		42,416,315	23,301,612	30,222,731	-45.06%	29.70%
Escrow deposits on mortgage loans		327,086	353,698	1,869,474	8.14%	428.55%
Other deposits		3,797,540	4,283,473	1,225,103	12.80%	-71.40%
Payables for acquisition of investments		60,380,430	81,241,159	73,241,076	34.55%	-9.85%
Total liabilities		113,008,246	 115,914,648	118,699,350	2.57%	2.40%
Net assets	\$	1,332,667,782	\$ 1,391,500,020	\$ 1,408,375,956	4.41%	1.21%

Management's Discussion and Analysis (Unaudited) As of June 30, 2018

Contributions and Net Investment Income

The funds needed to finance retirement benefits are obtained through employer and employee contributions and through net investment income. Contributions and net investment income for fiscal year 2018 amounted to approximately \$219.6 million compared to \$251.5 million for fiscal year 2017. The decrease was due to a decrease in the employer contributions and a decrease in net investments income during fiscal year 2018.

Statements of Changes in Fiduciary Net Position

				2015-2016	2016-2017	2017-2018
	June 30,	June 30,	June 30,	Percentage	Percentage	Percentage
	2016	2017	2018	Change	Change	Change
Additions:						
Contributions	\$ 116,643,497	\$ 118,533,094	\$ 109,223,431	-5.81%	1.62%	-7.85%
Net Investment income	59,717,584	132,950,015	110,356,900	-21.61%	122.63%	-16.99%
Total additions	176,361,081	251,483,109	219,580,331	-11.83%	42.60%	-12.69%
Deductions:						
Benefits paid to participants	182,614,074	188,310,782	198,246,775	3.25%	3.12%	5.28%
General and administrative expenses	4,075,499	4,340,089	4,457,620	-2.61%	6.49%	2.71%
Total deductions	186,689,573	192,650,871	202,704,395	3.11%	3.19%	5.22%
Net increase (decrease) in net position						
restricted for pension	\$ (10,328,492)	\$ 58,832,238	\$ 16,875,936	-154.45%	669.61%	-71.32%

Management's Discussion and Analysis (Unaudited)
As of June 30, 2018

Contributions paid by employees were approximately \$35.86 million, \$39.04 million, and \$38.6 million for the years ended June 30, 2018, 2017, and 2016, respectively. This represented a decrease of approximately \$3.18 million dollars for 2018 or -8.14%, contrary to an increase of approximately \$402.5 thousand dollars or 1.04% for 2017.





General and Administrative Expenses

General expenses for the administration of the System are budgeted and approved as part of the annual budget process and are paid from the assets of the System. Expenses for some professional services, including outside legal counsel, auditor, investment managers, investment advisor, and actuarial services are paid directly by the System. In addition, the Board reviews and approves proposals for one-time, special projects as they arise.

Total general and administrative expenses for the System during fiscal year 2018, 2017 and 2016, amounted to \$4,457,620, \$4,340,089 and \$4,075,499, respectively. The increase in administrative expenses from 2017 to 2018 were mainly due to an increase in the need of security services because of the Hurricane Maria and due to an increase in the need of actuarial services.

Management's Discussion and Analysis (Unaudited)
As of June 30, 2018

Actuarial Standards

Actuarial calculations are based on the current provisions of the System and on actuarial assumptions that are as of June 30, 2018 and internally consistent and reasonably based on the actual experience of the System. In addition, the calculations were completed in compliance with the laws governing the System. The actuary is a member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to determine the actuarial amounts contained in this report.

Future actuarial results may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not presented herein.

The following table summarizes the membership of the System as of June 30:

Membership	2018	2017	2016
Inactive members or their beneficiaries currently			
receiving benefits	8,816	8,598	8,417
Inactive members entitled to but not yet receiving benefits	8,217	8,829	8,588
Active members	9,635	10,204	10,438
Total	26,668	27,631	27,443

The long-term expected rate of return of the System investments was determined using a lognormal distribution analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) which 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 target asset allocation and best estimates of arithmetic real rates of return for each major asset class provided by the System's investment consultant.

Management's Discussion and Analysis (Unaudited)
As of June 30, 2018

The discount rate used to measure the total pension liability was 3.81% as of June 30, 2018, compared to 3.92% as of June 30, 2017, and 5.89% as of June 30, 2016. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rates and that employer contributions will be made at rates equal to the difference between the total contribution rates and the member rate. The total contribution rates are projected based on a 40-year closed amortization of the System's unfunded accrued liability beginning on June 30, 2015 in accordance with Certification No. 146 adopted by the Governing Board of the University during the 2015 fiscal year. Based on those assumptions, the System's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members until the plan year ending June 30, 2033. Therefore, the long-term expected rate of return on pension plan investments of 6.75% was applied to all periods of projected benefit payments through June 30, 2032 and the applicable municipal bond index rate of 2.98%, based on the S&P Municipal Bond 20-year High Grade Index Rate as of June 30, 2018, was applied to all periods of projected benefit payments after June 30, 2033. The Single Equivalent Interest Rate (SEIR) of 3.81% that discounts the entire projected benefit stream to the same amount as the sum of the present values of the two separate benefit payments streams was used to determine the total pension liability as of June 30, 2018. The SEIR at the beginning of the measurement period was 3.92% based on the long-term expected rate of return on pension plan investments of 6.75% applied to all periods of projected benefit payments through June 30, 2032 and the applicable municipal bond index rate of 3.13% as of June 30, 2017 applied to all periods of projected benefit payments after June 30, 2032.

Required Supplementary Information includes four required schedules of historical trend information as follows:

- 1. The Schedule of Changes in the University of Puerto Rico's Net Pension Liability (page 39) presents sources of changes in the net pension liability.
- 2. The Schedule of the University of Puerto Rico's Net Pension Liability (page 40) includes historical information about the components of the net pension liability and related ratios, including fiduciary net position as a percentage of the total pension liability, and the net pension liability as a percentage of covered-employee payroll.
- 3. The Schedule of the University of Puerto Rico's Contributions (page 41) includes information about the actuarially determined contribution, contributions to the pension plan, and related ratios. Additionally, significant methods and assumptions used in calculating the actuarially determined contributions are presented in the notes to required supplementary information.
- 4. The Schedule of Investment Returns (page 42) includes the annual money-weighted rate of return on pension plan investments for each year.

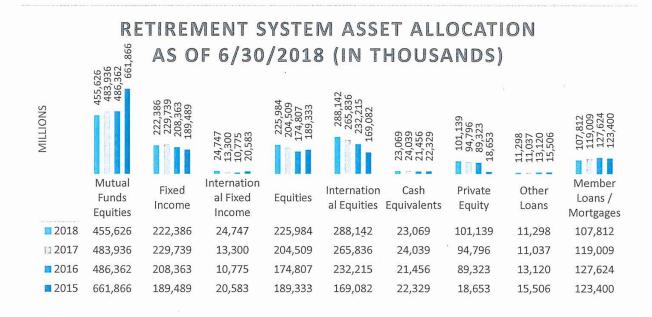
University of Puerto Rico Retirement System Management's Discussion and Analysis (Unaudited) As of June 30, 2018

Investments

The System's investment portfolio appreciated in fair value by approximately \$89.27 million during fiscal year 2018, as compared to fiscal year 2017, when it appreciated by approximately \$112.33 million and approximately \$38.99 million in 2016. The net investment income for fiscal year 2018 amounted to approximately \$110.36 million, which represent a decrease in investment income of approximately \$22.59 million. Total investment expenses during fiscal year 2018 were \$4,080,473, an increase of \$432,983 from previous year due to an increase in custody bank and investment manager's fee charges.

Asset Allocation of the University of Puerto Rico Retirement System

Most of the System's assets are invested in marketable securities. The investment fund has 67.92% of its assets in stocks and 13.7% in fixed income investments, 8.34% loans to participants, 1.73% in international fixed income, and 7.00% in private equity investments for the year ended June 30, 2018. Equity investments are diversified between domestic and foreign markets and among companies with small, medium and large capitalization. The table below shows the asset allocation as of June 30, 2018, 2017, 2016 and 2015:



Management's Discussion and Analysis (Unaudited)
As of June 30, 2018

Benefits Paid and Liabilities

For the fiscal year 2018, pension benefits paid to retirees and beneficiaries were \$198.25 million, which represents an increase of approximately \$9.94 million or 5.28% when compared to the prior year. For the fiscal year 2017, pension benefits paid to retirees and beneficiaries were \$188.31 million, which represents an increase of approximately \$5.70 million or 3.12% when compared to the fiscal year 2016.

As of June 30, 2018, the Active members and Retired members were **9,635** and **8,816** respectively, as compared to 10,204 and 8,598 as of June 30, 2017.

During fiscal year 2018, total liabilities were approximately \$118.70 million, which represents an increase of approximately \$2.78 million or 2.40% when compared to prior year. 62% of our total liabilities consist of unsettled transactions. During fiscal year 2017, total liabilities were approximately \$115.9 million, which represents an increase of approximately \$2.91 million or 2.57% when compared to prior year. 70% of our total liabilities consisted of unsettled investment transactions. Overall, liabilities represents accounts payable to agencies, deposits for distribution to employee's contributions and accounts payables for acquisition of investments.

The System as a Whole

Fiscal year 2017, reported a positive net position of approximately \$58.8 million due to return on investment held by the Plan as these investments presented positive returns that amounted to approximately \$132.95 million.

Fiscal year 2018, reported a positive in net position of \$16.88 million due to the return of investments held by the Plan as these investments presented positive returns that amounted to approximately \$110.36 million.

Economic Factors

The Puerto Rico economy has been in a recession since 2006. There has been an overall contraction in sectors of Puerto Rico's economy, principally within the manufacturing and construction sectors, coupled with declines in retail sales, budget shortfalls and diminished consumer buying power resulting in higher costs of living.

Management's Discussion and Analysis (Unaudited)
As of June 30, 2018

The Commonwealth's recurring deficits, negative financial position, further deterioration of its economic condition (a prolonged economic recession which commenced in 2006), and inability to access the credit markets raise substantial doubt about the Commonwealth's ability to continue as a going concern. The significant financial difficulties being experienced by the Commonwealth has a significant adverse impact on the University, given its reliance on Commonwealth appropriations.

The Commonwealth's very high level of debt and unfunded pension liabilities and the resulting required allocation of revenues to service debt and pension obligations have contributed to significant budget deficits during the past several years, which deficits the Commonwealth has financed, further increasing the amount of its debt. These matters and the Commonwealth's liquidity constraints, among other factors, have adversely affected its credit ratings and its ability to obtain financing at reasonable interest rates, if at all. As a result, the Commonwealth had relied more heavily on short-term financings and interim loans from the GDB, and other instrumentalities of the Commonwealth, which reliance has constrained the liquidity of the Commonwealth in general and the GDB, and increased near-term refinancing risk. These factors, among others, have also resulted in the non-payment by the Commonwealth and its instrumentalities of most of their outstanding debt obligations, including the outstanding GDB lines of credit which caused the discontinuance of GDB to provide liquidity to the Commonwealth and instrumentalities, such as the University, and have caused the default of GDB's debt obligations.

On January 29, 2017, the Commonwealth enacted Act No. 5, the Puerto Rico Financial Emergency and Fiscal Responsibility Act ("Act No. 5"). Act No. 5 is intended to facilitate and encourage a voluntary negotiation process under PROMESA between the Governor of Puerto Rico and/or the Puerto Rico Fiscal Agency and Financial Advisory Authority (FAFAA), on behalf of the Government of Puerto Rico, and the creditors of the Government of Puerto Rico and its instrumentalities. Act No. 5 authorizes the Government of Puerto Rico, within the parameters established by PROMESA, to designate certain services necessary for the health, safety and welfare of the residents of Puerto Rico and provided by the Government of Puerto Rico and its instrumentalities as "essential services", in accordance with the Constitution of Puerto Rico. Act No. 5 amended and repealed portions of the Act No. 21, as amended by Act 40-2016 and Act 68-2016 (the "Moratorium Act"). The Moratorium Act, and executive orders issued by the Governor under the Moratorium Act (the "Executive Orders"), permitted the Government of Puerto Rico to withhold the timely payment of its obligations at a point in time before the enactment of PROMESA.

Management's Discussion and Analysis (Unaudited)
As of June 30, 2018

On May 2, 2017, the legal shield granted by PROMESA protecting the Commonwealth from debtrelated lawsuits expired. On May 3, 2017, the Oversight Board of PROMESA approved and certified the filing in the U.S. District Court for the District of Puerto Rico of a voluntary petition under Title III of PROMESA (a court-supervised debt-adjustment process) for Commonwealth to ensure the essential services to the public, the payment of the government payroll and the suppliers. This voluntary petition under Title III of PROMESA operates as an automatic stay of actions against the Commonwealth.

As mentioned above, the fiscal year ended June 30, 2018 continued to present significant economic challenges and difficulties for the University. As a result, the System's management focused hard on initiatives aimed at protecting the System of the University. On June 29, 2016 the University confirmed, restated and acknowledged in a public deed (the "Trust Deed") all acts and faculties as applied and lawfully enforced by the Governing Board in relation to the System and its trust fund from its inception to the present-day. Thus, through the execution of the Trust Deed, the University affirmed the public and governmental nature of the System founded in the year 1945 and its organization as a de facto trust. Pursuant to the Trust Deed, the System's assets remain completely autonomous and separate of the assets of the University, the Trustee and its members and continue to be exempt from the individual or collective action of their respective creditors.

As part of their Certified Fiscal Plan for the University of Puerto Rico, The Fiscal Oversight and Management Board for Puerto Rico includes a freeze in the pension, and continuation of a Defined Contribution plan similar to those of other Commonwealth plans, but with a 50% match on member contributions of up to 2%. Also includes a reduction in accrued benefits, using the same mechanism as for other plans, but with recognition of the partially funded status of the UPR retirement system.

Contacting System Financial Management

This financial report is designed to provide the Government Board, Retirement Board, participants, taxpayers, investors, and creditors with a general overview of the System's finances and to demonstrate the University of Puerto Rico accountability for the money it receives. If you have any questions about this report or need additional financial information, contact the University of Puerto Rico Retirement System at P.O. Box 21769, San Juan, Puerto Rico 00931-1769 and (787) 751-4550.

UNIVERSITY OF PUERTO RICO RETIREMENT SYSTEM

STATEMENTS OF FIDUCIARY NET POSITION June 30, 2018 and 2017

		2018		2017
ASSETS:				
Cash and cash equivalents	\$	23,069,338	\$	24,039,199
Investment at fair value:	·		.65	
U.S. Government and Agencies' obligations		55,028,319		72,111,583
Foreign bonds		24,747,211		13,299,629
Corporate common stock		69,604,666		66,367,475
Foreign common stock		288,141,860		265,835,582
Common stock		225,984,185		204,508,791
Mortgage-backed securities		66,944,855		67,384,378
Municipal bonds		827,424		835,393
Sovereign debt		936,635		939,385
Commingled funds equity		455,626,157		483,935,926
Alternative investments	řs	101,139,224		94,796,295
Invested securities lending cash collateral		29,043,981		22,101,269
Loans to plan members:				
First Mortgage		33,789,910		38,219,863
Personal installments		74,021,902		80,788,983
Other, net of allowance for doubtful accounts of \$84,611				
in 2018 and 2017		11,297,940		11,037,091
Other receivables		1,093,282		217,568
Accrued interest receivable on investments		2,417,324		2,348,405
Receivables from sale of investments		47,008,740		44,217,463
Contributions receivable from Puerto Rico		5		
Treasury Department		2,338,019		2,292,798
Accounts receivable from University of Puerto Rico		10,160,986		8,897,172
Capital assets, net of accumulated depreciation of \$1,440,082		,	ě.	
and \$1,343,189 in 2018 and 2017, respectively	(3,853,348		3,240,420
	V _{ers}	1,527,075,306		1,507,414,668
LIABILITIES:				
Accounts payable and accrued expenses		12,140,966		6,734,706
Obligations under securities lending		30,222,731		23,301,612
Escrow deposits on mortgage loans		1,869,474		353,698
Other deposits and pending distribution funds		1,225,103		4,283,473
Payable for acquisition of investments		73,241,076		81,241,159
	5 	118,699,350		115,914,648
NET POSITION RESTRICTED FOR PENSIONS	\$	1,408,375,956	\$	1,391,500,020

The accompanying notes are an integral part of these statements.



STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION For the Years Ended June 30, 2018 and 2017

	2018	2017
ADDITIONS:	₩.	
Contributions-		
Employer	\$ 73,359,775	\$ 79,490,663
Participants	35,863,656	39,042,431
	109,223,431	118,533,094
Investment income-		
Net appreciation in fair value of investments	89,271,247	112,330,054
Interest	15,651,704	15,835,757
Dividends	9,514,422	8,431,696
	114,437,373	136,597,507
Investment expense	4,080,473	3,647,492
Net investment income	110,356,900	132,950,015
	219,580,331	251,483,109
DEDUCTIONS:		
Benefits paid to participants	198,246,775	188,310,782
General and administrative expenses	4,457,620	4,340,089
	202,704,395	192,650,871
NET INCREASE IN NET POSITION	16,875,936	58,832,238
NET POSITION RESTRICTED FOR PENSIONS, beginning of year	1,391,500,020	1,332,667,782
NET POSITION RESTRICTED FOR PENSIONS, end of year	\$ 1,408,375,956	\$ 1,391,500,020

The accompanying notes are an integral part of these statements.



NOTES TO BASIC FINANCIAL STATEMENTS June 30, 2018 and 2017

1) Organization and Summary of Significant Accounting Policies:

A) Organization – The University of Puerto Rico Retirement System (the System) is the sponsor of a single-employer defined benefit pension plan that was created by Act No. 135, approved on May 7, 1942. The System started operations on January 1, 1945, the date on which contributions by employees and the University of Puerto Rico (the University) commenced. Assets of the System are legally held in a Trust, separate from the assets of the University of Puerto Rico, and are held solely for the purpose of meeting the System's obligations.

The responsibility for the proper operation and administration of the System is vested in the Executive Director of the System, which in turn will report to the Retirement System Committee of the Government Board of the University (the Committee). The Committee will then notify the Members of the University's Government Board of any decisions made related to the System. The Government Board are the Trustees of the Plan.

B) <u>Summary of significant accounting policies</u> – The accounting policies followed by the System conform to predominant industry practices and follows accounting principles generally accepted in the United States of America. The following summarizes the most significant accounting policies:

<u>Basis of presentation</u> – The System's financial statements and notes to the financial statements are prepared under the provisions of Governmental Accounting Standards Board (GASB) Statement No. 67, *Financial Reporting for Pension Plans*-an amendment of GASB Statement No. 25.

The accompanying financial statements have been prepared on the accrual basis of accounting. Members and employer contributions are recognized in the period in which the contributions are due and the employer has made a formal commitment to provide the contributions. Benefits are recognized when due and payable in accordance with the terms of the Plan.

<u>Investments</u> – Investments are reported at fair value. Investment in securities are valued based on quotations obtained from national security exchanges. Dividend income is recognized when received.

The fair value of investments held in foreign currencies are translated to U.S. dollars generally using current rates of exchange and the related translation adjustments are included as an addition to the unrealized change in fair value of investments which is recorded in the statement of changes in fiduciary net position as net appreciation in fair value of the investments.

The fair value of private equity fund investments is determined by the applicable fund manager.

<u>Securities lending</u> – Cash received as collateral on securities lending transactions is used to purchase investments. These investments are reported as assets in the accompanying financial statements and are generally measured at fair value with the exception of repurchase agreements, which are reported at cost. A corresponding liability is also reported for the amount owed to the broker at the termination of the lending agreement. Additional disclosures about the Plan's securities lending transactions are provided in Note 5.

<u>Loans to System's members</u> – Are carried at their unpaid principal balance, which approximates their fair value. Mortgage loans are collateralized by the member's contribution to the pension plan and first mortgage liens on the underlying properties. These mortgages are valued on the basis of future principal and interest payments discounted at prevailing interest rates for similar instruments.



NOTES TO BASIC FINANCIAL STATEMENTS June 30, 2018 and 2017

The System's Government Board granted certain members the option to select a supplemental pension benefit by making a retroactive contribution to the System. The members who accept this option have to make a lump-sum payment to cover the related benefits. The members could obtain an interest-bearing loan from the System to fund their contributions.

As of June 30, 2018 and 2017, the balance of *other loans* consisted of the principal balance of such contributions, which amounted to approximately \$11.30 million and \$11.04 million, respectively, net of allowance for uncollectible accounts.

<u>Medical insurance</u> – The System acts as a pass-through of the employer medical insurance contributions to retirees. Medical insurance contributions received from the employer are recorded as a liability until paid to retirees.

<u>Capital assets</u> – Capital assets are recorded at cost. Depreciation is computed using the straight-line method based on the estimated useful lives of the depreciable property. Amounts exceeding \$1,000 and with a useful life of three years or more are capitalized.

Expenditures for maintenance and repairs are charged to operations, while those for renewals and betterments are capitalized. Depreciation expense charged to operations during the years ended June 30, 2018 and 2017 amounted to approximately \$96,900 and \$158,300, respectively.

2) Description of the System:

A) <u>General</u> – The System is a single-employer defined benefit pension plan that covers all employees of the University with the exception of hourly, temporary, part-time, contract and substitute employees, and visiting professors. It is qualified and exempt from Puerto Rico and United States income taxes.

Members consisted of the following as of June 30:

Description	2018	2017
Retirees and beneficiaries receiving benefits	8,816	8,598
Terminated plan members entitled to but not yet receiving benefits	.469	457
Terminated non-vested plan members entitled to return of their contributions	7,748	8,372
Active plan members	9,635	10,204
Total	26,668	27,631

B) <u>Plan Amendments</u> – The following is a summary of the most significant Plan amendments and certifications, presented for general purposes only. Members and other users should refer to the Trust Agreement and original amendments and certifications for a more complete description of the Plan provisions and amendments.

Effective July 1, 2007, the Plan was amended by Certification No. 12. This certification was superseded by Certification No. 70 (2013-2014) in which the automatic 3% increase in pension benefits was terminated.

UNIVERSITY OF PUERTO RICO RETIREMENT SYSTEM

NOTES TO BASIC FINANCIAL STATEMENTS June 30, 2018 and 2017

Effective July 1, 2014, the compensation limit for Certification No.139 was frozen at \$69,556. Effective January 1, 2015, the formula for Non-Occupational Disability was amended to increase vesting from 10 years to 15 years and the benefit payable will be 90% of the member retirement benefit payable if the member was to retire based on years of service.

Effective July 1, 1998, the Plan was amended by establishing Certification No. 94 (1997-1998), to offer members an increase from \$35,000 to \$50,000 in the maximum salary subject to withholding contributions. The members who elect this benefit may pay retroactively to their first day of employment the differences in withholding contributions for prior year salaries exceeding \$35,000 and up to a maximum of \$50,000 plus 8% interest. Effective July 1, 1998, all new members will contribute 9% of their salary up to \$50,000.

Effective July 1, 2002, the Plan was amended by establishing Certification No. 139 (2001-2002), to offer members an increase from \$50,000 to \$60,000 in the maximum salary subject to withholding contributions. The members who elect this benefit may pay retroactively to their first day of employment the differences in withholding contributions for prior year salaries exceeding \$35,000 and up to a maximum of \$60,000, plus 8% interest. Effective July 1, 2002, all new members will have the option to contribute 9% of their salary up to \$50,000 or 11% of their salary up to \$69,556.

In addition, the maximum annual compensation for those members who had not completed 20 years of service by July 1, 1979 is \$35,000. Also, the minimum pension is \$250 a month. Finally, the reduction for commencement of pension benefits prior to age 55 is 1/3% per month for members who had not completed 20 years of service by July 1, 1979, and elected Certification No. 55, and for members hired on or after January 1, 1990.

Effective July 1, 2015, following recommendations presented by the Retirement Board, the System was amended by the Government Board through Certification No. 140 – (2014-2015): active members as of June 30, 2015 are divided into two groups:

- 1. Those who had 25 or more years of accredited service. These are not affected by the changes in regulation.
- 2. Those who had less than 25 years of accredited service. To this group, effective June 30, 2015, individual required contribution increased by 1% and the required age for retirement changed from 55 to 58 years.

Certification No. 7:

Member who had earned 20 years of services as of July 1, 1979:

- a. Member who selected a complete supplementation with Social Security, contributes 7% of monthly compensation.
- b. Member who selected a coordinated plan with Social Security, contributes 4% of the monthly compensation up to \$ 350, plus 6 ½% of the excess.
- c. No salary CAP.



NOTES TO BASIC FINANCIAL STATEMENTS June 30, 2018 and 2017

Certification No. 37:

Member who had not earned 20 years of services as of July 1, 1979, and the ones who had entered on July 1, 1978 through December 1989:

Member with 25 years or more accredited at June 30, 2015	Members with less than 25 years accredited at June 30, 2015
5% up to \$35,000 (\$2,916)	6% up to \$35,000 (\$2,916)
9% up to \$50,000 (\$4,166)	10% up to \$50,000 (\$4,166)
11% up to \$69,556 (\$5,796)	12% up to \$69,556 (\$5,796)
Contification No. EE.	

Certification No. 55:

Mandatory applicable to all members who entered beginning January 1, 1990 and those who enter before 1990 and are under the supplemented with social security plan and the ones who between January 1990 and December 1991 elected to fall under the coordinated with social security plan from Certification No. 55 (4/6.5%):

Member with 25 years or more accredited at June 30, 2015	Members with less than 25 years accredited at June 30, 2015
7% or 8% Suppl or 4/6.5% Coord. until \$35,000 (\$2,916)	8% or 9% Suppl or 4/6.5% Coord. until \$35,000 (\$2,916)
9% up to \$50,000 (\$4,166)	10% up to \$50,000 (\$4,166)
11% Suppl / Coord. up to \$69,556 (\$5,796)	12% Suppl / Coord. up to \$69,556 (\$5,796)
egulation for those who entered between July 1, 199	98 and March 31, 2015:
M	W 1 27 1 27 25
Member with 25 years or more accredited at June 30, 2015	Members with less than 25 years accredited at June 30, 2015
5	
accredited at June 30, 2015	accredited at June 30, 2015
accredited at June 30, 2015 9% up to \$50,000 (\$4,166)	accredited at June 30, 2015 10% up to \$50,000 (\$4,166) 12% up to \$69,556.44 (\$5,796)

UNIVERSITY OF PUERTO RICO RETIREMENT SYSTEM

NOTES TO BASIC FINANCIAL STATEMENTS June 30, 2018 and 2017

Regulation for those who entered as of July 1, 2015:

Member with Less than 25 years of accredited at June 30, 2015

12% up to \$69,556 (\$5,796)

Contributions and Funding Policy:

The contribution requirements of members and the University are established and may be amended by the Board of Trustees. Members are required to contribute as follows:

Members who elect Certification No. 139: 11% of monthly compensation up to \$5,796

Members who have not completed 20 years of service by July 1, 1979:

- If full supplement is elected: 7% of monthly compensation up to \$2,916
- If full supplement is not elected: 5% of monthly compensation up to \$2,916
- If Certification No. 94 is elected: 9% of monthly compensation up to \$4,166
- If Certification 139 is elected: 11% of monthly compensation up to \$5,796

Members who have completed 20 years of service by July 1, 1979:

- If full supplement is elected: 7% of monthly compensation
- If full supplement is not elected: 4% of monthly compensation up to \$350, plus 6.5% of the excess

Members who have not completed 20 years of service by July 1, 1979 and elect Certification No. 55:

- If full supplement is elected: 7% of monthly compensation up to \$2,916
- If full supplement is not elected: 4% of monthly compensation up to \$350, plus 6.5% of the excess up to \$2.916
- If Certification 94 is elected: 9% of monthly compensation up to \$4,166
- If Certification 139 is elected: 11% of monthly compensation up to \$5,796

Members who are hired between January 1, 1990 and June 30, 1998:

- 8% of monthly compensation up to \$2,916 or,
- If Certification 94 is elected: 9% of monthly compensation up to \$4,166
- If Certification 139 is elected: 11% of monthly compensation up to \$5,796

Members who are hired on or after July 1, 1998 until March 31, 2015:

• 9% of monthly compensation up to \$4,166

Members who are hired on or after April 1, 2015:

11% of monthly compensation up to \$5,796 fully supplemented

Members who are hired after July 1, 2015:

12% of monthly compensation up to \$5,796

UNIVERSITY OF PUERTO RICO RETIREMENT SYSTEM

NOTES TO BASIC FINANCIAL STATEMENTS June 30, 2018 and 2017

The University contributes at an actuarially determined rate; the rate as of June 30, 2018, 2017 and 2016 was 20.08%, 17.56%, and 15.20%, respectively, of annual covered payroll. The actuarially determined employer contribution rate takes into account payment of administrative expenses that are paid out of the trust fund.

The contributions of the University were originally designed to fund, together with the contributions of the members, the current service cost on a current basis and the estimated accrued benefit cost attributable to qualifying service prior to the establishment of the System over a Certification No. 146 (2014-2015), 40-year period, but as a result of increasing benefits without a correlative increase in employer's contributions, they fall short of accomplishing the necessary funding.

C) Retirement Benefits - The System provides retirement, disability and death benefits to members and beneficiaries.

Members who have completed 20 years of service by July 1, 1979 are entitled to annual retirement benefits at any age after 30 years of service. Otherwise, members are entitled to annual retirement benefits as follows:

- Certification No. 55 at age 55 after 30 years of service for those with 25 or more years at June 30, 2015, at age 58 for those with less than 25 years at June 30,2015.
- Certification No. 37 at age 58

Members may elect to receive their retirement benefits at age 58 after 10 years of service, or at age 55 after 25 years of service.

The amount of service retirement annuity is as follows:

For all members except those who have completed 20 years of service by July 1, 1979:

- Before age 65 for members with at least 30 years of service: 75% of average compensation.
 Amount is reduced by .5% for each month the member is 55 but under age 58 (Certification No. 37) and 55 (Certification No. 55), at time annuity begins.
- Before age 65 for members with less than 30 years of service: 1.5% of average compensation per year of service for the members with 20 or fewer years. Percentage increases by .05% for each year in excess of 20 years up to a maximum of 1.95% per year. Amount is reduced by .5% for each month the member is between the age of 55 and 58 at time annuity begins (Certification No. 37) and 1/3% for each month the member is under age 55 with more than 25 years of service and 1/3% for each month the member is under age 58 with less than 25 years of service (Certification No. 55).
- After age 65 if the member elected full supplement, the annuity is the same as before age 65. Otherwise, the annuity is reduced by .5% of average compensation not in excess of Social Security wage base in effect at retirement for each year of service. If the members had less than 30 years of service and was under age 58 at the beginning date, adjustment is made before application of .5% reduction per month under age 58.

UNIVERSITY OF PUERTO RICO RETIREMENT SYSTEM

NOTES TO BASIC FINANCIAL STATEMENTS June 30, 2018 and 2017

For those members who have completed 20 years of service by July 1, 1979:

- Before age 65 for members with at least 30 years of service: 75% of average compensation if age 55 at beginning date; 65% if under age 55. If the member completed 30 years of service before July 1973, the annuity is increased by 2% of average compensation for each year of service beyond 30 and before July 1973, but to no more than 85% of average compensation.
- Before age 65 for members with less than 30 years of service: 1.5% of average compensation per year of service for members with 20 or fewer years. Percentage increases by .05% for each year in excess of 20 years up to maximum of 1.95% per year. Amount is reduced by .5% for each month the member is under age 58 at the time the annuity begins.
- At age 65 if members elected full supplement, the annuity is the same as before age 65. Otherwise, the annuity is reduced by .5% of first \$350 of average compensation for each year of service but not by more than primary Social Security benefit. If the members had less than 30 years of service and was under age 58 at beginning date, adjustment is made before application of .5% reduction per month under age 58.

For all members who have not completed 20 years of service by July 1, 1979 and elect Certification 55, and for those hired on or after January 1, 1990:

- Before age 65 for members with less than 30 years of service: 1.5% of average compensation per year of service for members with 20 or fewer years. Percentage increases by .05% for each year in excess of 20 years up to a maximum of 1.95% per year.
- Before age 65 for members with at least 30 years of service: 75% of average compensation for members with at least 55 years of age at retirement date. Amount reduced by .5% for each month the member is between age 55 and 58 (Certification 37); and 1/3% for each month the member is under age 55 with more than 25 years of service and 1/3% for each month the member is 58 with less than 25 years of service (Certification No. 55).
- After Age 65 if members elected full supplement, annuity is the same as before age 65. Otherwise, annuity is reduced by .5% of average compensation at time of retirement multiplied by years of service.
- Minimum Annuity \$250 per month if a member terminates before rendering 10 years of service, the right to receive the portion of his accumulated plan benefits attributable to the University's contributions is forfeited. However, the member is entitled to receive, in a lump-sum payment, the value of his accumulated contributions.
- If a member terminates after rendering 10 years of service, and does not withdraw his contributions, the member receives a retirement annuity payable beginning at age 60 based on the applicable benefit formula.
- Refund may also be obtained after 10 years of service, but the vested benefit is lost.

UNIVERSITY OF PUERTO RICO RETIREMENT SYSTEM

NOTES TO BASIC FINANCIAL STATEMENTS June 30, 2018 and 2017

- Disability Benefits Members who become disabled receive annual disability benefits regardless of service if disability is due to occupational causes or after 15 years of service if disability is due to no-occupational causes. If the member is also eligible for a retirement annuity, the benefit payable is the higher of the two. Disability benefits are paid as follows:
 - Before age 65 if service related 50% of final salary. If not, services related, 30% of average compensation plus additional 1% for each year of service over 10.
 - After age 65 reduced to amount payable as retirement annuity, if that amount is less than disability retirement annuity, but reduced annuity plus primary Social Security benefit may not be less than original disability annuity.

Effective December 15, 2014, Certification No. 51, (2014-2015) non-occupational disability benefits regulation was amended. A disability due to non-occupational causes will be payable upon 15 years of service, the benefit payable will be 90% of the member's retirement benefit payable if the member was to retire based on years of service. If the member is eligible for a service retirement, benefit payable will be the higher of the two.

E) Death Benefits -

- Pre-retirement death benefit if the death of an employee is service related, a death benefit equal to 50% of the final annual salary plus \$120 (\$240 if widow not receiving benefit) per year for each child under age 18 (21 if at school) is paid to the employee's beneficiaries. Maximum family benefit is 75% of the employee's final annual salary. If death is non-service related, a lump-sum is paid equal to the employee's contributions plus one year's final salary, but not less than \$6,000.
- Post retirement death benefits employee's contributions are refunded if they do not exceed retirement payments already made, unless reverse annuity was elected. Minimum payment is \$600.
 In addition, an annuity is payable to surviving spouse until death or remarriage or until they become eligible for Social Security benefits. Minimum annuity, \$75 per month, maximum annuity, \$150 per month.
- F) Christmas Bonus A \$400 annual bonus is given to all retired members.

3) Financial Condition and Liquidity:

The discussion in the following paragraphs regarding the System's financial and liquidity risks provides the necessary background and support for management's evaluation as to whether there is substantial doubt about the System's ability to continue as a going concern for 12 months beyond the date of the financial statements or for an extended period if there is currently known information that may raise substantial doubt shortly thereafter. GASB Statement No. 56, Codification of Accounting and Financial Reporting Guidance Contained in the AICPA Statements on Auditing Standards, establishes that the continuation of a legally separate governmental entity as a going concern is assumed in financial reporting in the absence of significant information to the contrary. Information that may significantly contradict the going concern assumption would relate to a governmental entity's inability to continue to meet its obligations as they become due without substantial disposition of assets outside the ordinary course of governmental operations, restructuring of debt, submission to the oversight of a separate fiscal assistance authority or financial review board, or similar actions. Indicators such as negative trends in operating losses and negative cash flows, possible financial difficulties such as nonpayment or default of debt and/or restructurings or noncompliance with capital or reserve requirements, and internal or external matters impacting the governmental entity's ability to meet its obligations as they become due, are factors that are considered in this evaluation.

UNIVERSITY OF PUERTO RICO RETIREMENT SYSTEM

NOTES TO BASIC FINANCIAL STATEMENTS June 30, 2018 and 2017

The System's sponsor (the University) faces significant risks and uncertainties, including liquidity risk, which is the risk of not having sufficient liquid financial resources to meet obligations when they come due. Both the Commonwealth and the University have expressed substantial doubt about their respective ability to continue as going concerns in their most recently issued financial statements. The risks and uncertainties facing the University together with other factors further described below, have led management to conclude that there is substantial doubt as to the ability of the System to continue as a going concern in accordance with GASB Statement No. 56.

The Commonwealth's recurring deficits, negative financial position, further deterioration of its economic condition (a prolonged economic recession which commenced in 2006), and inability to access the credit markets raise substantial doubt about the Commonwealth's ability to continue as a going concern. The significant financial difficulties being experienced by the Commonwealth has a significant adverse impact on the University, given its reliance on Commonwealth appropriations.

The Commonwealth and several of its component units face significant risks and uncertainties, including liquidity risk. The risks and uncertainties facing the Commonwealth, together with other factors, have led the Commonwealth's management to conclude that there is substantial doubt as to the ability of the primary government and of various discretely presented component units, to continue as a going concern. In addition, the Commonwealth's management believes that the pension trust funds, included as part of the fiduciary funds, carry a substantial risk of insolvency, if measures are not taken to significantly increase contributions to such funds.

On January 29, 2017, the Commonwealth enacted Act No. 5, the Puerto Rico Financial Emergency and Fiscal Responsibility Act ("Act No. 5"). Act No. 5 is intended to facilitate and encourage a voluntary negotiation process under PROMESA between the Governor of Puerto Rico and/or the Puerto Rico Fiscal Agency and Financial Advisory Authority (FAFAA), on behalf of the Government of Puerto Rico, and the creditors of the Government of Puerto Rico and its instrumentalities. Act No. 5 authorizes the Government of Puerto Rico, within the parameters established by PROMESA, to designate certain services necessary for the health, safety and welfare of the residents of Puerto Rico and provided by the Government of Puerto Rico and its instrumentalities as "essential services", in accordance with the Constitution of Puerto Rico. Act No. 5 amended and repealed portions of the Act No. 21, as amended by Act 40-2016 and Act 68-2016 (the "Moratorium Act").

The Moratorium Act, and executive orders issued by the Governor under the Moratorium Act (the "Executive Orders"), permitted the Government of Puerto Rico to withhold the timely payment of its obligations at a point in time before the enactment of PROMESA.

On May 2, 2017, the legal shield granted by PROMESA protecting the Commonwealth from debt-related lawsuits expired. On May 3, 2017, the Oversight Board of PROMESA approved and certified the filing in the U.S. District Court for the District of Puerto Rico of a voluntary petition under Title III of PROMESA (a court-supervised debt-adjustment process) for Commonwealth to ensure the essential services to the public, the payment of the government payroll and the suppliers. This voluntary petition under Title III of PROMESA operates as an automatic stay of actions against the Commonwealth.

The System has evaluated the current market and University situation and considered several facts to establish a mitigation action plan as follows:

Trust Regulations:

The System is the sponsor of a single-employer defined benefit pension plan that was created by Act No. 135, approved on May 7, 1942. The System started operations on January 1, 1945, the date on which contributions by employees and the Employer commenced.



NOTES TO BASIC FINANCIAL STATEMENTS June 30, 2018 and 2017

Fund administration:

The Retirement System located its assets in a separate Retirement Fund located in JP Morgan Chase New York in 1989. This Retirement Trust account was created to exclusively receive income, hold monies, and make disbursements on behalf of the Trust.

Investments Return:

As of June 30, 2018, the returns of the Retirement fund continue to present position positive results. During the last 12 months of fiscal year 2017-2018, the System's closed with a return of 8.43%.

Funding Ratio:

The funding ratio increased from 43.9% in June 30, 2014 to 46.6% in June 30, 2015, to 47.8% in June 30, 2016 to 48.9% in June 30, 2017, and experimented a decrease to 43.7% in June 30, 2018

Contributions:

As stated in the plan document, the Retirement fund will not be used for disbursements, withdrawals, and transfer of any assets other than the exclusive use of funds for both pension and administrative expenses. Its securities, notes or other evidences of loans are clearly marked to indicate ownership by the System and are registered in the name of the System. Its administration is separated from the administration of the University as established in Cert. 53 (1989-1990).

The System is qualified and exempt from Puerto Rico and United States income taxes like other peer governmental plans. There is uncertainty as to what actions the Oversight Board and the Commonwealth will take, if any, and the effects they may have on the Plan. PROMESA requires that any fiscal plan developed by the Commonwealth or any of its affiliates shall "provide for the adequate funding for public pension systems." In addition, pursuant to the Trust Deed, the System's assets remain completely autonomous and separate of the assets of the University, the Trustee and its members and continue to be exempt from the individual or collective action of their respective creditors.

The assets of the System's fund have been well maintained over \$1.3 billion since 2014. Given the precarious scenarios in Puerto Rico, the System's funds are likely not sufficient to sustain necessary withdrawals as projected over the life of the Plan, without further contributions by the University. However, management believe the System's funds can sustain withdrawals for approximately 15 years, assuming a constant rate of return of 6.75% and liabilities as currently projected. This analysis only includes the individual contributions that are part of the University automatic payroll deductions. The employer has stated clearly that payroll is a priority under the current scenario and has asserted a commitment to fund the unfunded liability for the next 40 years to the extent it is able.

Plan Regulatory Changes:

As a result of intensive research work made by the System administration and several meetings by the Retirement Board and the Government Board, retirement system regulatory changes have been approved for the current and next fiscal years. These measures emerged as initiatives implemented towards improving sustainability of the current defined benefit system. The System amendments are described in detail in Notes 2 and 10.

UNIVERSITY OF PUERTO RICO RETIREMENT SYSTEM

NOTES TO BASIC FINANCIAL STATEMENTS June 30, 2018 and 2017

4) Cash and Cash Equivalents:

Cash and cash equivalents as of June 30, 2018 and 2017, are as follows:

Description	2018	_	2017
Cash Cash equivalents	\$ 20,692,749 2,376,589	\$	15,395,360 8,643,839
	\$ 23,069,338	\$	24,039,199

5) Investments:

The framework for measuring fair value provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (level 1) and the lowest priority to unobservable inputs (level 3). The three levels of the fair value hierarchy are described as follows:

- Level 1 Inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets that the Plan has the ability to access.
- Level 2 Inputs to the valuation methodology include:
 - Quoted prices for similar assets or liabilities in active markets;
 - Quoted prices for identical or similar assets or liabilities in inactive markets;
 - Inputs other than quoted prices that are observable for the asset or liability;
 - Inputs that are derived principally from or corroborated by observable market data by correlation or other means.

If the asset or liability has a specified (contractual) term, the level 2 input must be observable for substantially the full term of the asset or liability.

Level 3 – Inputs to the valuation methodology are unobservable and significant to the fair value measurement.

The following is a summary of the fair value hierarchy of the fair value of investments of the System as of June 30, 2018 and 2017:

		June 30, 2018								
			Fair Value Measurements Using:							
			Quoted Prices in Active Markets for Identical Assets		Significant Other Observable Inputs		Unobservable Inputs for the Assets			
Description		Total		(Level 1)		(Level 2)		(Level 3)		
U.S. Government and Agencies' obligations	\$	55,028,319	\$	-	\$	55,028,319	\$	-		
Common stocks		225,984,185		225,984,185		-				
Mortgage-backed securities		66,944,855		₩.		66,944,855		\ #		
Municipal bonds		827,424		H .		827,424		\ <u></u>		
Corporate bonds		69,604,666		*		69,604,666		7 .		
Foreign common stock		288,141,860		288,141,860		•		h -		

Continues. . .



NOTES TO BASIC FINANCIAL STATEMENTS June 30, 2018 and 2017

Continued							
					e 30, 2018		
		<u> </u>	Fair Val	ue Me	asurements Usi	ng:	
Description	 Total	Activ	oted Prices in ve Markets for ntical Assets (Level 1)		nificant Other ervable Inputs (Level 2)	Inp	observable outs for the Assets (Level 3)
Foreign bonds Commingled funds equity Sovereign debt Alternative investments	24,747,211 455,626,157 936,635 101,139,224		- - - -	29	24,747,211 455,626,157 936,635	1	- - - 101,139,224
	\$ 1,288,980,536	\$	514,126,045	\$	673,715,267	\$	101,139,224
			Fair Va		30, 2017 easurements Usin	ıa:	
		Acti	oted Prices in ve Markets for entical Assets	Sig	nificant Other servable Inputs	Un	observable outs for the Assets
Description	 Total		(Level 1)		(Level 2)	(Level 3)
U.S. Government and Agencies obligations Common stocks Mortgage-backed securities Municipal bonds Corporate bonds Foreign common stocks Foreign bonds Commingled funds equity Sovereign debt Alternative investments	\$ 72,111,583 204,508,791 67,384,378 835,393 66,367,475 265,835,582 13,299,629 483,935,926 939,385 94,796,295	\$	204,508,791 - - - 265,835,582 - - -	\$	72,111,583 - 67,384,378 835,393 66,367,475 - 13,299,629 483,935,926 939,385	\$	- - - - - - - - 94,796,295
	\$ 1,270,014,437	\$	470,344,373	\$	704,873,769	\$	94,796,295

No more than 5% of any debt issue may be purchased as an investment, with the exception of the U.S. government securities or its agencies. No more than 10% of the assets at cost may be invested in the securities of a single issuer, with the exception of the U.S. government securities or its agencies.

Investments classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets.

Investment income securities, including U.S. sponsored agencies bonds and notes, U.S. municipal bonds, foreign government bonds, mortgage-backed securities, pooled funds and corporate bonds, classified in Level 2 of the fair value hierarchy are valued using matrix pricing techniques maintained by various pricing vendors. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices. Fair value is defined as the quoted market value on the last trading day of the period. These prices are obtained from various pricing sources by our custodian bank. Alternative investments are classified in Level 3.



NOTES TO BASIC FINANCIAL STATEMENTS June 30, 2018 and 2017

The custody of these investments is held by the trust department of a commercial bank in the name of the System and the portfolio is managed by Investment Management Organization.

The UPR's Government Board has adopted the following strategic asset allocation:

Asset Class	% Allocated	Range
Domestic Large Cap Equity	25.6%	+/-5%
Domestic Small/Mid Cap	24.0%	+/-3%
International Equity	6.4%	+/-3%
Fixed Income	30.0%	+/-5%
Real Estate	5.0%	+/-3%
Personal Loans and Mortgages	9.0%	+/-3%

The overall investment fund does not have a strategic asset allocation to cash but individual managers will hold varying amounts of cash within their respective portfolios as part of the normal course of managing the assets.

From time to time, when the operating cash flow has excess disbursements the Executive Director is authorized to sell securities on behalf of the Retirement System not exceeding \$6,500,000 (Certification No. 97, 2013-2014) per month. This will be executed according to market fluctuations and rebalancing requirements of the portfolio without diverging from the Investment Policy.

The overall investment fund does not have a strategic allocation to private equity. However, the overall investment fund may, from time to time, examine private equity investments that it deems acceptable. If an allocation to private equity is made it will be funded from the domestic equity asset class. At no time, will the allocation exceed 5% of total fund assets.

Alternative investments include the following as of June 30, 2018 and 2017:

		22.3.3			Jun	e 30, 2018		
Description	Total Commitment		Contributions		Distributions		Fair Value	
Grupo Guayacán, Inc.:								
Guayacán Fund of Funds II, LP	\$	6,000,000	\$	5,683,539	\$	7,509,742	\$	82,297
Guayacán Fund of Funds III, LP		5,000,000		4,861,098		4,230,666		3,245,629
Guayacán Fund of Funds IV, LP		5,000,000		2,259,146		375,000		2,066,493
Advent-Morro Equity Partners Inc.:								
Guayacán Private Equity Fund I, LP		2,500,000		2,322,582		4,120,811		872,726
Guayacán Private Equity Fund II, LP		5,000,000		4,909,472		797,101		3,916,669
Guayacán Private Equity Fund III, LP		7,500,000		187,500		-		-
McCoy Investment Fund 2		15,000,000		12,403,897		5,693,184	1	2,364,436
RREEFF America REI T II	_	65,000,000		65,000,000		-	7	8,590,974
Total	\$	111,000,000	\$	97,627,234	\$	22,726,504	\$ 10	1,139,224



NOTES TO BASIC FINANCIAL STATEMENTS June 30, 2018 and 2017

				June 30, 2017				
Description	Co	Total ommitment	C	ontributions	_ D	istributions	_Fa	air Value
Grupo Guayacán, Inc.:								
Guayacán Fund of Funds II, LP	\$	6,000,000	\$	5,683,539	\$	7,377,124	\$	220,241
Guayacán Fund of Funds III, LP		5,000,000		4,726,372		2,980,666		3,750,719
Guayacán Fund of Funds IV, LP		5,000,000		1,401,946		200,000		1,230,846
Advent-Morro Equity Partners Inc.:								
Guayacán Private Equity Fund I, LP		2,500,000		2,322,582		4,120,811		1,073,857
Guayacán Private Equity Fund II, LP		5,000,000		4,909,472		797,101		4,496,622
Guayacán Private Equity Fund III, LP		7,500,000		187,500		=		42,379
McCoy Investment Fund 2		15,000,000		10,904,326		4,193,613	1	10,261,382
RREEFF America REI T II		65,000,000		65,000,000			7	73,720,249
Total	\$	111,000,000	\$	95,135,737	\$	19,669,315	\$ 9	94,796,295

Credit Risk

Issuer credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. Investments issued or explicitly guaranteed by the United States government are excluded. The System's policy requires and limits investments in debt securities to only those in the top investment grade ratings issued by a nationally recognized statistical rating organization.

As of June 30, 2018, the System's credit quality distribution for securities was as follows:

	201	8
Description	Carrying Value	Rating
Foreign bonds	\$24,747,211	AAA to BB+
Corporate bonds and other debentures	69,604,666	AAA to D
Mortgage backed securities	66,944,855	AAA to D
Municipal bonds	827,424	AAA to BBB+



NOTES TO BASIC FINANCIAL STATEMENTS June 30, 2018 and 2017

Custodial Risk

The custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, the System will not be able to recover deposits or will not be able to recover collateral securities that are in the possession of an outside party. The custody of the commingled fund is located at another financial institution. Investments of the System, which are under custody of a depository finance institution, are as follows:

	2018	2017		
Description	Carrying Value	Carrying Value		
Mortgage-backed securities	\$ 66,944,855	\$ 67,384,378		
Corporate bonds and other debentures	69,604,666	66,367,475		
Common stocks	225,984,185	204,508,791		
U.S. Government and Agencies obligations	1,001,000	1,406,201		
Treasury bonds and notes	54,027,319	70,705,382		
Foreign common stocks	288,141,860	265,835,582		
Foreign corporate bonds	19,767,121	10,231,934		
Foreign government bonds	4,980,090	3,067,695		
Commingled fund equity	455,626,157	483,935,926		
Sovereign debt	936,635	939,385		
Municipal bonds	827,424	835,393		
Total	\$ 1,187,841,312	\$ 1,175,218,142		

Security Lending

The System has a Security Lending Agreement (the Agreement) with its investment custodian (the Custodian). In this Agreement, the University agrees to lend certain securities upon request of a borrower. The Custodian is the managing agent in this agreement where upon request of a borrower, the Custodian lends, as mentioned before, securities in exchange for collateral. Collateral may consist of cash, other approved securities and/or letter of credit from the borrower. The Custodian has the unrestricted right to invest any cash collateral; also, the Custodian may commingle any approved securities held as collateral with any other securities held under custody on behalf of the University. Under the Agreement, the borrower is compelled to return the securities loaned by the University upon termination of the loan term.

Under the Agreement as disclosed above, the System had a cash collateral of \$29,043,980 and \$22,101,269 at June 30, 2018 and 2017, respectively. This cash collateral has been reinvested, in accordance with the Agreement, in fixed income investments that are exposed to custodial credit risk as disclosed in the executed agreement.

During fiscal year 2008-2009, there was a default in a Lehman Brothers and Sigma floating rate note in which securities lending collateral had been invested. These funds are invested into a collective investment trust fund and are included on the statement fiduciary of net position. The purpose of the separate account is to provide a reserve account to offset expected losses. At 2018 and 2017, the System had an unrealized loss in the Securities Lending Collateral pool of \$1,165,566 and \$1,175,454, respectively, and had accrued an obligation of \$30,222,730 and \$23,301,612, respectively, in the separate account.



NOTES TO BASIC FINANCIAL STATEMENTS June 30, 2018 and 2017

Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributable to the magnitude of investment in a single issuer. Information regarding investment in any one issuer that represents five percent or more of the System's total investments must be disclosed under GASB No. 40, excluding investments issued or explicitly guaranteed by the United States government. The System's portfolio is not exposed to concentration of credit risk since the investment policies do not allow the System to invest in any single issuer more than 5% of the total portfolio, except for Government securities.

Interest-Rate Risk

Interest-rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. Generally, the longer the maturity of an investment, the greater the sensitivity of its fair value is to changes in market interest rates. As of June 30, 2018, and 2017, the weighted average maturity by investment type in each fund follows:

	Weighted Average	Fair Value					
Investment Type	(Years)		2018		2017		
Corporate Bonds	4.7190	\$	69,604,666	\$	66,367,475		
Mortgage Backed Securities	4.9786		66,944,855		67,384,378		
Municipal Bonds	0.0326		827,424		835,393		
Foreign Bonds	0.4889		24,747,211		13,299,629		
US Government agencies obligations							
and Sovereign debt	2.6048		55,964,954	-	73,050,968		
		\$	218,089,110	\$	220,937,843		

Foreign Currency Risk

A System's exposure to foreign currency risk derives from its positions in foreign currency denominated equities and fixed income investments. The System's investment policy permits it to invest up to 15% of total investments in foreign currency denominated investments. The following is a listing of foreign assets included in the Statement of Fiduciary Net Position as of June 30, 2018:

Security Type	Currency	Maturity	Fa	ir Value
Common Stocks	Australia	Not Applicable	\$	7,300,341
Common Stocks	Belgium	Not Applicable		1,233,167
Common Stocks	Bermuda	Not Applicable		8,115,047
Common Stocks	Brazil	Not Applicable		2
Common Stocks	Cayman Islands	Not Applicable		5,233,857
Common Stocks	Canada	Not Applicable		13,679,427
Common Stocks	Channel Island	Not Applicable		3,225,843
Common Stocks	China	Not Applicable		1,322,878
Common Stocks	Denmark	Not Applicable		3,288,752
Common Stocks	Finland	Not Applicable		504,078
Common Stocks	France	Not Applicable		35,988,659

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NOTES TO BASIC FINANCIAL STATEMENTS June 30, 2018 and 2017

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Security Type	Currency	Maturity	Fair Value
Common Stocks	Germany	Not Applicable	31,302,208
Common Stocks	Hong Kong	Not Applicable	3,878,151
Common Stocks	India	Not Applicable	1,182,210
Common Stocks	Ireland	Not Applicable	5,185,578
Common Stocks	Israel	Not Applicable	1,354,230
Common Stocks	Japan	Not Applicable	56,640,750
Common Stocks	Korea	Not Applicable	370,975
Common Stocks	Luxembourg	Not Applicable	1,091,032
Common Stocks	Netherlands	Not Applicable	12,755,874
Common Stocks	Norway	Not Applicable	1,380,330
Common Stocks	Panama	Not Applicable	573,112
Common Stocks	South Africa	Not Applicable	612,014
Common Stocks	Spain	Not Applicable	8,526,393
Common Stocks	Sweden	Not Applicable	5,187,373
Common Stocks	Switzerland	Not Applicable	30,881,699
Common Stocks	Taiwan	Not Applicable	6,971,151
Common Stocks	United Kingdom	Not Applicable	40,356,729
Corporate Bonds	Australia	03/06/2020 - 05/15/2023	1,223,435
Corporate Bonds	Belgium	02/01/2026 - 02/01/2046	179,967
Corporate Bonds	Canada	09/23/2019 - 02/01/2046	2,069,929
Corporate Bonds	Channel Islands	9/23/2021 - 09/23/2023	210,265
Corporate Bonds	China	01/19/2028 - 12/06/2057	374,044
Corporate Bonds	France	10/15/2020 - 01/09/2025	1,216,563
Corporate Bonds	Germany	10/14/2021 - 12/01/2032	1,535,384
Corporate Bonds	Ireland	07/01/2020 - 07/02/2044	793,937
Corporate Bonds	Japan	03/19/2019 - 07/25/2022	2,097,741
Corporate Bonds	Korea	08/29/2022	191,750
Corporate Bonds	Luxembourg	03/12/2020 - 03/15/2045	363,945
Corporate Bonds	Mexico	2/15/2020	203,354
Corporate Bonds	Netherlands	03/16/2020 — 03/29/2022	857,095
Corporate Bonds	Spain	04/12/2023	195,255
Corporate Bonds	Sweden	01/27/2020	174,575
Corporate Bonds	Switzerland	08/14/2019 — 05/17/2027	2,856,459

Continues . . .



NOTES TO BASIC FINANCIAL STATEMENTS June 30, 2018 and 2017

Continued . . .

Security Type	Currency	Maturity	Fair Value
Corporate Bonds	United Kingdom	05/11/2020 - 05/30/2048	5,223,423
Governmental Bonds	Canada	08/27/2018 - 06/17/2019	1,015,155
Governmental Bonds	Colombia	01/16/2025 - 04/25/2027	600,625
Governmental Bonds	Germany	02/06/2019	296,502
Governmental Bonds	Indonesia	01/11/2028 - 04/24/2028	377,805
Governmental Bonds	Mexico	03/05/2020-01/23/2046	1,809,648
Governmental Bonds	Panama	09/22/2024	201,500
Governmental Bonds	Peru	07/15/2025	199,730
Governmental Bonds	Philippines	02/01/2028	277,125
Governmental Bonds	Qatar	04/23/2028	202,000
Total			\$ 312,889,071

Foreign Currency Risk represent 21% of Total Assets.

Risk and Uncertainty

The Retirement Fund invests in various marketable securities. These are exposed to various risks; due to the level of risk inherent in securities it is possible that changes in the values of these securities could occur in the near term and that such changes could materially affect the amounts reported in the Statement.

6) Capital Assets:

Capital assets additions are recorded at cost. Depreciation is provided using the straight-line method over the useful life of the asset. For the years ended June 30, 2018 and 2017, changes in capital assets, consisted of the following:

Description		Balance at June 30, 2017	A	dditions	Ref	tirements	Balance at June 30, 2018
Building	\$	3,811,940	\$	-	\$	-	\$ 3,811,940
Equipment		394,588		12,700			407,288
Foreclosure homes	_	377,080	_	697,121		-	 1,074,201
		4,583,608		709,821		-	5,293,429
Less: Accumulated depreciation		(1,343,188)				(96,893)	 (1,440,081)
	\$	3,240,420	\$	709,821	\$	(96,893)	\$ 3,853,348



NOTES TO BASIC FINANCIAL STATEMENTS June 30, 2018 and 2017

Description	-	Balance at June 30, 2016	-	Additions	Re	etirements	E	Balance at June 30, 2017
Building	\$	3,811,940	\$	· =	\$	=	\$	3,811,940
Equipment		292,640		101,948		-		394,588
Foreclosure homes	1	376,719		361		_		377,080
		4,481,299		102,309				4,583,608
Less: Accumulated depreciation	=	(1,155,077)	-	-	-	(188,111)		(1,343,188)
	\$	3,326,222	\$	102,309	\$	(188,111)	\$	3,240,420

7) Medical Insurance:

The System is a pass-through of the employer's medical insurance contributions to retirees and reimbursed each retiree up to a maximum of \$125 monthly for medical plan expenses. For the years ended June 30, 2018 and 2017, the medical plan expenses amounted to \$12,007,799 and \$9,845,192, respectively. Medical expenses are paid by the retirees and reimbursed by the University of Puerto Rico.

8) Related Party Transactions:

All employer contributions of the System are received from the University. In addition, the University utilizes the System for certain medical insurance expenses.

9) Net Pension Liability of the University of Puerto Rico:

The components of net pension liability of the University of Puerto Rico as of June 30, 2018 and 2017, were as follows (in thousands):

Description	 2018	 2017	
Total pension liability Fiduciary net position	\$ 4,432,509 (1,408,376)	\$ 4,359,733 (1,391,500)	
Net pension liability	\$ 3,024,133	\$ 2,968,233	
Fiduciary net position as a percentage of the total pension liability	31.77%	 31.92%	

<u>Actuarial Assumptions</u> – The total pension liability at June 30, 2018, was determined by an actuarial valuation as of June 30, 2017, using the following actuarial assumptions and experience, applied to all periods included in the measurement. The result was rolled forward using standard actuarial techniques to the measurement date of June 30, 2018:

Inflation	2.5%
Salary increases	2.5% and wage growth rate of .25%
Investment rate of return	3.81%, net of investment expense per annum compounded annually



NOTES TO BASIC FINANCIAL STATEMENTS June 30, 2018 and 2017

The rates of mortality for the period after service retirement are according to the RP-2014 White Collar Headcount-weighted Mortality Table with rates adjusted by 103.8% for males and by 98.2% for females, projected generationally using scale MP-2019 for retired healthy pensioners. Rates of mortality for the period after disability retirement are according to the RP-2014 Disabled Retiree Mortality Table with rates adjusted by 93.4% for males and by 94.3% for females, projected to 2019 using scale MP-2019.

The long-term expected rate of return on pension plan investments was determined using a log-normal distribution analysis 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 target asset allocation and best estimates of arithmetic real rates of return for each major asset class provided by the System's investment consultant Callan are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Broad U.S. equity	32.0%	6.27%
Global ex U.S. equity	24.0%	6.96%
Domestic fixed	30.0%	0.82%
High Yield	7.5%	3.04%
Real Estate	5.0%	4.84%
Private Equity	1.5%	10.51%
Total	100.0%	_

<u>Discount rate</u> — The discount rate used to measure the total pension liability was 3.81%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rates and that employer contributions will be made according to the Financial Oversight and Management Board's new fiscal plan for fiscal years through 2024, and the five-year average of those contributions thereafter. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members until the plan year ending June 30, 2033. Therefore, the long-term expected rate of return on pension plan investments of 6.75% was applied to all periods of projected benefit payments through June 30, 2033 and the applicable municipal bond index rate of 2.98%, based on the S&P Municipal Bond 20-year High Grade Index Rate as of June 30, 2018, was applied to all periods of projected benefit payments after June 30, 2033. The Single Equivalent Interest Rate (SEIR) of 3.81% that discounts the entire projected benefit stream to the same amount as the sum of the present values of the two separate benefit payments streams was used to determine the total pension liability as of June 30, 2018. The SEIR at the beginning of the measurement period was 3.92%.

The discount rate used to measure the total pension liability was 3.92 % at June 30, 2017. 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 the Plan contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate.

UNIVERSITY OF PUERTO RICO RETIREMENT SYSTEM

NOTES TO BASIC FINANCIAL STATEMENTS June 30, 2018 and 2017

Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members until the plan year ending June 30, 2032. Therefore, the long-term expected rate of return on pension plan investments of 6.75% was applied to all periods of projected benefit payments through June 30, 2032 and the applicable municipal bond index rate of 3.13%, based on the Bond Buyer General Obligation 20-year Municipal Bond Index published monthly by the Board of Governors of the Federal Reserve System as of June 30, 2017, was applied to all periods of projected benefit payments after June 30, 2032. The Single Equivalent Interest Rate (SEIR) of 3.92% that discounts the entire projected benefit stream to the same amount as the sum of the present values of the two separate benefit payments streams was used to determine the total pension liability as of June 30, 2017.

The SEIR at the beginning of the measurement period was 3.92% and 5.89% for prior period, based on the long-term expected rate of return on pension plan investments of 6.75% for 2017 that was adjusted from 7.75% used for 2016; the 6.75 long-term expected rate of return applied to all periods of projected benefit payments through June 30, 2032. The applicable municipal bond index rate of 3.13% and 3.01% as of June 30, 2017 and 2016, respectively, applied to all periods of projected benefit payments after June 30, 2032.

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

The following presents the net pension liability of the University of Puerto Rico, at June 30, 2018, calculated using the SEIR discount rate of 3.81%, as well as what the University of Puerto Rico's net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (2.81%) or 1-percentage-point higher (4.81%) than the current rate (in thousands):

		1%		Current		1%	
	Decrease		Di	scount Rate	Increase		
		(2.81%)		(3.81%)		(4.81%)	
University of Puerto Rico's net pension liability	\$	3,239,433	\$	3,024,133	\$	2,356,317	

For June 30, 2017, the net pension liability of the University of Puerto Rico, calculated using the discount rate of 3.92%, as well as the University of Puerto Rico's net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (2.92%) or 1-percentage-point higher (4.92%) than the current rate (in thousands):

	1%		Current	1%
	 Decrease (2.92%)	Di	scount Rate (3.92%)	 Increase (4.92%)
University of Puerto Rico's net pension liability	\$ 3,557,719	\$	2,968,233	\$ 2,480,136

10) System Regulatory Changes:

As a result of intensive research work made by System Administration and several meetings by the System Board and the Government Board, effective July 1, 2015 retirement system regulatory changes occurred. These measures emerged as initiatives implemented towards improving sustainability of the current defined benefit system.



NOTES TO BASIC FINANCIAL STATEMENTS June 30, 2018 and 2017

Effective July 1, 2015, participation rules changed for all members with less than 25 years of service. Retirement age eligibility and payroll contribution requirements were modified for members under 25 years of credited services as of June 30, 2015 (*Governing Board Certification number 140, 2014-2015*):

- For members with less than 25 years of service as of June 30, 2015, the eligible retirement age change from 55 to 58 years and the individual contribution increases an additional one percent (1%) over the one currently being deducted as of June 30, 2015. This increase in contribution does not represent changes in the employee current pension salary ceiling certification nor in the Social Security supplementation. Members retain their right to exercise the option to change to Social Security supplementation and / or to change to another pension salary ceiling certificate in accordance with established rules and regulations for these changes.
- Members who enter for the first time on July 1, 2015 and thereafter will contribute 12% of their salary to a maximum of \$69,556 salary ceiling supplemented with Social Security. These new members will automatically fall into the provisions for Annuities Service Certification 55 (1989-1990) of the Higher Education Council, as amended.

11) Subsequent Events:

On October 21, 2018, the Employer certified the Fiscal Plan of the University which includes a pension reform that proposes a freeze in the pension and a transition from a defined benefit to a defined contribution pension plan with a 50% match on a member contribution up to a 2%.

On November 9, 2018, the Government Board of the University of Puerto Rico through Certification No.39, agreed to transfer \$10 million to the System in order to cover the amounts due related to 2016-2017 and 2017-2018 contributions.

Management has evaluated subsequent events through December 2, 2019, the date in which the financial statements were available to be issued.



SCHEDULE OF CHANGES IN NET PENSION LIABILITY (Unaudited) June 30,

(In Thousands)

2018				2017	 2016	2015	
Total pension liabillity:							
Service cost	\$	74,827	\$	52,000	\$ 46,571	\$	48,107
Interest		167,015		191,144	194,184		177,334
Changes in benefit terms		₩.			(14,671)		(45,209)
Differences between espected and							
actual experience		(2,678)		(24,376)	(4,733)		(323,974)
Changes in assumptions		31,859		989,905	160,911		32,269
Benefit payments, including refunds							
of member contributions	-	(198,247)		(188,311)	(182,614)		(176,872)
Net change in total pension		72,776		1,020,362	199,648		(288,345)
Total pension liability, beginning		4,359,733		3,339,371	 3,139,723		3,428,068
Total pension liability, ending (a)	\$	4,432,509	\$	4,359,733	\$ 3,339,371	\$	3,139,723
System fiduciary net position: Contributions - employer Contributions - members Net investment income Benefit payments Administrative expenses	\$	73,360 35,864 110,357 (198,247) (4,458)	\$	79,491 39,042 132,950 (188,311) (4,340)	\$ 78,004 38,640 59,009 (182,614) (3,363)	\$	88,251 35,594 76,684 (176,872) (4,689)
Other				#1	 (4)	2-	
Net change in plan net position Plan fiduciary net position, beginning		16,876 1,391,500	(58,832 1,332,668	(10,328) 1,342,996		18,968 1,324,028
Plan fiduciary net position, ending (b)	\$	1,408,376	\$	1,391,500	\$ 1,332,668	\$	1,342,996
Net Pension Liability - Ending (a) - (b)	\$	3,024,133	\$	2,968,233	\$ 2,006,703	\$	1,796,727





SCHEDULE OF NET PENSION LIABILITY (Unaudited) June 30,

(In Thousands)

Marie and the second of the se		2018		2017		2016		2015	
Total pension liabillity System's fiduciary net position	\$	4,432,509 1,408,376	\$	4,359,733 1,391,500	\$	3,339,371 1,332,668	\$	3,139,723 1,342,996	
Net pension liability	\$	3,024,133	\$	2,968,233	\$	2,006,703	\$	1,796,727	
Pension liability		31.77%		31.92%		39.91%		42.77%	
Covered employee payroll	\$	478,529	\$	488,775	\$	515,994	\$	516,226	
Net pension liability as a percentage of covered- employee payroll		631.96%	1 	607.28%	-	388.90%	iir	348.05%	

Factors that Significantly Affect Trends in Amounts Reported

For the periods presented, there were changes of benefit terms, however no changes in the size or composition of the population covered by the benefit terms. Also, the System had changes of assumptions which significantly affect trends in the amounts reported.

Changes of benefit terms effective July 1, 2014, the compensation limit for Certification 139 was frozen at \$69,557.

Changes in actuarial assumptions:

2017

- Rates of mortality were changed to the RP-2014 White Collar Headcount-weighted Mortality Table with rates adjusted by 103.8% for male
 and by 98.2% for females, projected generationally using scale MP-2017 for retired healthy pensioners. Rates of mortality for the period
 after disability retirement are according to the RP-2014 Disabled Retiree Mortality Table with rates adjusted by 93.4% for males and
 by 94.3% for females, projected to 2019 using scale MP-2017.
- Rates of withdrawal, retirement, disability and salary increase were adjusted to more closely reflect actual experience.

2018

- Discount rate was changed from 3.92% to 3.81 %.
- Mortality projection scale was changed from MP-2017 to MP-2019.





SCHEDULE OF EMPLOYER CONTRIBUTIONS (Unaudited) June 30,

(In Thousands)

Year Ended June 30,	Actuarial Determined Contribution (ADC)	Contributions in Relation to the acturarial Determined Contribution	Contribution Deficiency (Excess)	Covered Employee Payroll	Contributions as a Percentage of Covered Employee Payroll (1)
2018	\$ 96,089	\$ 73,360	\$ 22,729	\$ 478,529	15.33%
2017	85,829	79,491	6,338	488,775	16.26%
2016	86,635	78,004	8,631	515,994	15.12%
2015	89,255	88,251	1,004	516,226	17.10%
2014	78,204	91,689	(13,485)	515,856	17.77%
2013	77,772	78,481	(709)	491,291	15.97%
2012	72,186	75,140	(2,954)	491,063	15.30%
2011	68,487	70,761	(2,274)	526,820	13.43%
2010	63,722	71,177	(7,455)	558,961	12.73%
2009	64,072	72,605	(8,533)	577,227	12.58%

⁽¹⁾ ADC Rate for each fiscal year comes from actuarial valuation at start of that fiscal year (e.g., the June 30, 2017)

Notes to Schedule of Employer Contributions:

Method and Assumptions Used In Calculations of Actuarially Determined Contributions

The actuarially determined contribution rates in the Schedule of Employer's Contributions were calculated as of June 30, for the fiscal year beginning on that date. The following actuarial methods and assumptions were used to determine contribution rates reported in that schedule:

Plan	Plan Employees
Valuation date	June 30, 2018
Actuarial cost method	Entry age normal
Amortization method	Level percentage of payroll, closed
Remaining amortization period	27 years
Asset valuation method	5-year smoothed market
Inflation	3.00%
Salary increase	3.75% including inflation
Investment rate of return	7.75%, net of investment expenses per annum, compounded annually

Based on the funding policy adopted by the University's Board of Governors, employer contributions for years beginning June 30, 2015 reflect amortization of the System's unfunded actuarial accrued liability over a closed 40-year period from that date.



SCHEDULE OF ANNUAL MONEY - WEIGHTED RATE OF RETURN ON INVESTMENTS (Unaudited) June 30,

EXHIBIT D

(In Thousands)

	2018	2017	2016	2015
Annual Money-Weighted Rate of Return				
net of investment expense:	8.11%	10.76%	3.93%	5.61%

Includes loans and private equities



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REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS

INDEPENDENT AUDITORS' REPORT

We have audited, in accordance with the 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, the financial statements of University of Puerto Rico Retirement System (the System) as of and for the years ended June 30, 2018 and 2017, and the related notes to the financial statements, which collectively comprise the System's basic financial statements as listed in the table of contents, and have issued our report thereon dated December 2, 2019, except for Note 9, and the Required Supplementary Information included in Exhibit A to C, that are dated February 24, 2020.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the System's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the System's internal control. Accordingly, we do not express an opinion on the effectiveness of the System's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented or detected and corrected on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of the section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.



Compliance and Other Matters

As part of obtaining reasonable assurance about whether the System's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contract, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not and objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under Government Auditing Standards.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with Government Auditing Standards in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

But four fin

San Juan, Puerto Rico December 2, 2019.

Stamp No. E407290 was affixed to the original of this report.