Commonwealth of Pennsylvania

Public School Employees'

Retirement System

(A Component Unit of the Commonwealth of Pennsylvania)

Financial Statements

June 30, 2017 and 2016

TABLE OF CONTENTS

SB & COMPANY, LLC
KNOWLEDGE • QUALITY • CLIENT SERVICE

REPORT OF INDEPENDENT PUBLIC ACCOUNTANTS

The Board of Trustees of
Commonwealth of Pennsylvania Public School Employees' Retirement System
Harrisburg, Pennsylvania

Report on the Financial Statements

We have audited the accompanying basic financial statements of the Commonwealth of Pennsylvania Public School Employees' Retirement System (PSERS), as of June 30, 2017 and 2016, and for the years then ended, and the related notes to the financial statements, which collectively comprise PSERS's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

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

Auditor's Responsibility

Our responsibility is to express an opinion on the basic financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the basic financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the basic financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the basic 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 basic 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 basic financial statements.

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

Opinion

In our opinion, the basic financial statements referred to above present fairly, in all material respects, the respective financial position of PSERS, as of June 30, 2017 and 2016, and the respective changes in its financial position thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America (GAAP).

200 International Circle • Suite 5500 • Hunt Valley • Maryland 21030 • P 410-584-0060 • F 410-584-0061

SB & COMPANY, LLC
KNOWLEDGE • QUALITY • CLIENT SERVICE

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis and Schedule of Changes in the Employer Net Pension Liability, Schedule of Employer Net Pension Liability, Schedule of Employer Pension Contributions, Schedule of Changes in the Employer Net OPEB Liability, Schedule of Employer Net OPEB Liability, Schedule of Employer Premium Assistance Contributions, Schedule of Investment Returns-Pension and OPEB and related notes to Required Supplementary Information 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 evidence sufficient to express an opinion or provide any assurance.

Other Supplementary Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise PSERS' basic financial statements. The Schedule of Administrative and Investment Expenses, Summary of Investment Expenses, and Schedule of Payments to Non-Investment Consultants are presented for purposes of additional analysis and are not a required part of the basic financial statements.

Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the basic financial statements as a whole.

SB & Company, LLC

Hunt Valley, Maryland
September 25, 2017

Management's Discussion and Analysis

Management's Discussion and Analysis (MD&A) of the Commonwealth of Pennsylvania Public School Employees' Retirement System (PSERS, System, Fund) for the fiscal year ended June 30, 2017 (FY 2017) provides a narrative summary of PSERS' financial position and performance, including highlights and comparative data. The MD&A is presented as required supplementary information to the financial statements and should be read in conjunction with the financial statements, the notes to financial statements, and the supplementary schedules.

Overview of Financial Statements

PSERS is primarily responsible for administering a defined benefit pension plan for public school employees in the Commonwealth of Pennsylvania. PSERS also administers two voluntary postemployment healthcare programs, the Health Insurance Premium Assistance Program (Premium Assistance) and the Health Options Program (HOP), for its annuitants. As part of the HOP, PSERS has an Employer/Union Direct Contract with the Centers for Medicare and Medicaid Services (CMS) to provide a Medicare Part D Prescription Drug Plan to participants. The financial statements present the financial position and activities for the pension plan and the two postemployment healthcare programs.

The ***Statements of Fiduciary Net Position*** provide a snapshot of the financial position of PSERS at June 30, 2017. Amounts are shown for the most recent and previous fiscal years for comparison and analysis of changes in individual line items.

The ***Statements of Changes in Fiduciary Net Position*** summarize PSERS' financial activities that occurred during the fiscal period from July 1, 2016 to June 30, 2017. Amounts are shown for the most recent and previous fiscal years for comparison and analysis of changes in individual line items.

The ***Notes to Financial Statements*** provide additional information that is essential for a full understanding of the financial statements. The notes are an integral part of the financial statements and include detailed information not readily evident in the basic financial statements such as accounting policies, plan membership and benefits, and summary disclosures of selected financial data.

The ***Required Supplementary Information*** immediately following the notes to financial statements provide seven schedules illustrating the Changes in the Employer Net Pension Liability, Employer Net Pension Liability, Employer Pension Contributions, Changes in the Employer Net OPEB Liability, Employer Net OPEB Liability, Employer Premium Assistance Contributions, and Investment Returns - Pension and OPEB.

The remaining supplementary schedules provide additional detailed information concerning the administrative expenses, investment expenses, and payments to non-investment consultants. These schedules emphasize the long-term nature of the pension and premium assistance plans and show the progress of PSERS in accumulating assets sufficient to pay benefits when due. All of this supplementary information is considered useful in understanding and evaluating the financial activities of PSERS.

Financial Highlights

- The time-weighted rate of return on investments was 10.14% for FY 2017, 1.29% for the fiscal year ended June 30, 2016 (FY 2016), and 3.04% for the fiscal year ended June 30, 2015 (FY 2015). The annualized rate of return since the Great Recession was 9.28%, which exceeded the 7.25% actuarial investment rate. Unless otherwise noted, all rates of return are net of fees.

- PSERS' total net position increased by $3.3 billion from $50.2 billion at June 30, 2016 to $53.5 billion at June 30, 2017. The increase was due in large part to net investment income plus member and employer contributions exceeding deductions for benefit and administrative expenses. The change in total net position from June 30, 2015 to June 30, 2016 was a decrease of $1.7 billion from $51.9 billion at June 30, 2015 to $50.2 billion at June 30, 2016. This decrease was due in large part to deductions for benefits and administrative expenses exceeding net investment income plus member and employer contributions.

- Total employer contributions increased from $3.3 billion in FY 2016 to $3.9 billion in FY 2017. This increase was primarily attributable to an increase in the total employer contribution rate from 25.84% in FY 2016 to 30.03% in FY 2017 in accordance with Act 120 of 2010. FY 2017 was the last of the large percentage increases in the employer contribution rate, as PSERS employers fully funded the actuarially required contributions in FY 2017.

- Total PSERS' benefit expense increased slightly from $6.8 billion in FY 2016 to $6.9 billion in FY 2017. The average monthly benefit and the number of members receiving benefits increased in FY 2017. New retirements during FY 2017 decreased by approximately 6% from FY 2016.

Progress of Act 120 on PSERS' Funding

On November 23, 2010, the Governor signed HB 2497 into law. The legislation is now known as Act 120 of 2010. Act 120 preserves the benefits of existing members and includes a series of actuarial and funding changes to PSERS and benefit reductions for individuals who become new members of PSERS on or after July 1, 2011. The Act created two new membership classes, T-E and T-F. T-E and T-F members are "shared-risk," meaning that their employee contributions can increase or decrease due to investment performance.

Act 120 addressed the pending employer contribution rate spike projected for FY 2013 by smoothing the projected rate increases over a five- to nine-year time period. Instead of a large rate spike in one year, under Act 120, the employer contribution rate has increased steadily each year from the 5.64% in effect when Act 120 became law to the 30.03% rate in FY 2017. Prior to Act 120, PSERS' Annual Required Contribution (ARC) percentage under Governmental Accounting Standards Board (GASB) standards was 27%. As a result of the Act 120 funding increases, on July 1, 2016, PSERS began receiving 100% of actuarially required contributions for the first time in 15 years. This marks a significant milestone in PSERS' contribution history and establishes a path to full funding.

The employer normal cost of Act 120 members is less than 3% of payroll which is over 65% less than the normal cost for pre-Act 120 members. As the percentage of T-E and T-F membership grows, the annual cost of benefits continues to decline steadily.

Funded Status and State Accumulation Account

PSERS uses an actuarial reserve type of funding that is financed by member contributions, employer contributions, and earnings from invested assets. Figure 1 illustrates a thirty-year history of PSERS' funded status. An independent actuarial valuation of PSERS' actuarial assets and liabilities is performed annually. As part of this valuation, the progress

Analysis of Fiduciary Net Position

(Dollar Amounts in Thousands)

Summary of Fiduciary Net Position	**FY 2017**	Increase (Decrease)	FY 2016	Increase (Decrease)	FY 2015
Assets:					
Receivables	**$ 2,536,842**	$ (658,316)	$ 3,195,158	$ 860,552	$ 2,334,606
Investments	**52,485,811**	4,487,827	47,997,984	(2,581,047)	50,579,031
Securities lending collateral pool	**2,016,063**	(76,666)	2,092,729	885,559	1,207,170
Capital assets	**24,001**	1,130	22,871	57	22,814
Miscellaneous	**17,251**	5,061	12,190	6,984	5,206
Total Assets	**57,079,968**	3,759,036	53,320,932	(827,895)	54,148,827
Liabilities:					
Payables and other liabilities	**1,556,959**	479,318	1,077,641	21,058	1,056,583
Obligations under securities lending	**2,016,063**	(76,666)	2,092,729	885,559	1,207,170
Total Liabilities	**3,573,022**	402,652	3,170,370	906,617	2,263,753
Net Position	**$ 53,506,946**	$ 3,356,384	$ 50,150,562	$ (1,734,512)	$ 51,885,074
Summary of Changes in Fiduciary Net Position					
Additions:					
Contributions	**$ 4,957,605**	$ 665,522	$ 4,292,083	$ 593,910	$ 3,698,173
Participant premiums and CMS	**410,417**	51,251	359,166	34,875	324,291
Net investment income	**4,996,703**	4,522,656	474,047	(854,836)	1,328,883
Total Additions	**10,364,725**	5,239,429	5,125,296	(226,051)	5,351,347
Deductions:					
Benefit expense	**6,923,904**	144,327	6,779,577	165,423	6,614,154
Administrative expenses	**84,437**	4,206	80,231	7,731	72,500
Total Deductions	**7,008,341**	148,533	6,859,808	173,154	6,686,654
Changes in Net Position	**$ 3,356,384**	$ 5,090,896	$ (1,734,512)	$ (399,205)	$ (1,335,307)

toward funding pension obligations of PSERS is measured by comparing the actuarial value of assets to the actuarial accrued liability. This measurement is referred to as the funded ratio or funded status. The most recent actuarial valuation reports that PSERS is 57.3% funded as of June 30, 2016. The funded ratio decreased from 60.6% as of June 30, 2015 due to employer contributions below the actuarially recommended level and an increase in the actuarial accrued liability from additional member service and the adoption of new actuarial assumptions. The actuarial value of assets, which is based on a ten-year smoothing period, remained consistent.

The results of operations for FY 2017 will be reflected in the actuarial valuation for the year ended June 30, 2017. Due to the normal lag time for completion of the actuarial valuation, the resulting funded status will be available at the end of the 2017 calendar year and will be reported in the financial statements for the fiscal year ending June 30, 2018 (FY 2018). Based on the investment performance for the ten-year period ended June 30, 2017, which is below the investment rate of return assumption during that time period, the funded ratio at June 30, 2017 is expected to decrease.

Under GASB 67, the market value funded ratio, which is referred to as the plan fiduciary net position as a percentage of total pension liability, increased from 50.14% at June 30, 2016 to 51.84% at June 30, 2017 as the Fund received the full actuarially determined contributions, had investment returns which exceeded the investment return assumption and experienced a small growth in benefit payments in FY 2017. The Fund is reaching a turning point after experiencing declining actuarial and market value funded ratios for many years. All the ingredients are now in place and a path to full funding has been established.

PSERS' State Accumulation Account was relatively consistent from June 30, 2016 to June 30, 2017 (See Note 3). Actuarial experience from the implementation of new assumptions offset favorable investment performance. Increased employer contributions and investment earnings will be used to reduce the deficit in this account in the future.

Investments

PSERS is a long-term investor and manages the pension fund with long-term objectives in mind. A primary element of PSERS' investment philosophy is diversification among various asset classes, which is the best way to achieve its goals. PSERS makes estimates of future long-term market returns and establishes an asset allocation plan taking into account the risk associated with each asset class as well as the financial objectives of the Fund.

The fiscal year can be characterized as a "risk-on" period where taking concentrated equity risk paid off as opposed to holding a diversified portfolio of assets. Improving economic fundamentals, improving global growth, low but rising inflation, and increasing corporate profitability all contributed to strong equity performance. The MSCI All Country World Index, a global equity index, rose by 20.5% during this period. Conversely, commodities fell by 6.9% during the year as did U.S. long-term treasuries by 7.2%.

The U.S. economy improved but still experienced only modest growth this past fiscal year. While interest rates increased, they continued to be historically low which provided a low cost of borrowing so that broad economic conditions could continue to improve. The U.S. real Gross Domestic Product (GDP) increased year-over-year an average of 2.1% per quarter during the past fiscal year with a range of 1.2% to 2.8%. Concurrently, U.S. consumer

Figure 1 - PSERS' Funded Ratio
Funded Ratio = Actuarial Value of Assets / Actuarial Accrued Liability

Management's Discussion and Analysis (continued)

confidence, as measured by the Conference Board's Consumer Confidence Index, increased from 97.4 at June 30, 2016 to 117.3 at June 30, 2017.

The Euro Area economy has shown improvement from last year. Evidence can be found in the improvement in the Markit Eurozone Manufacturing PMI (Purchasing Managers Index) which increased 4.6 points during the past fiscal year from 52.8 to 57.4. Aggressive actions the ECB (European Central Bank) has taken have generated improvements in economic growth, employment, and inflation. The ECB has continued its policy of very accommodative overnight interest rates and is ratably purchasing significant amounts of euro-denominated sovereign and corporate debt in an effort to put liquidity into the economy as well as ease financial conditions.

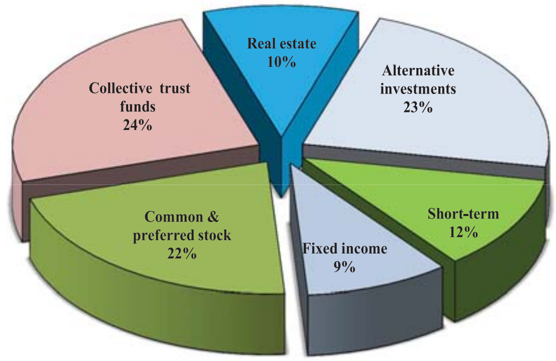
Japan's economy has grown for six straight quarters, the longest streak in 11 years. As of the second quarter 2017, Japan's real GDP had increased by an annualized rate of 4.0%. Japanese policy makers continue to aggressively stimulate their economy through a combination of low interest rates, the purchase of higher risk assets by the Bank of Japan, coordinated diversification into higher risk assets by large public investors, and fiscal spending policies to encourage liquidity to move into riskier assets. China had robust growth compared to the other developed regions of the world. China's real GDP increased by 6.9% over the past year, slightly faster than the 6.7% pace as of June 2016. Inflation in China has remained relatively stable over the past year at 1.5% compared to 1.9% last year.

For FY 2017, PSERS' time-weighted rate of return on investments was 10.14% which far exceeded PSERS' total fund Policy Index of 6.39% for the same time period. A time-weighted rate of return considers investment performance of a hypothetical dollar invested from the beginning of an investment period to the period's end. The Policy Index is a custom benchmark, based on the Board-established asset allocation structure, that seeks to generate a return that meets the actuarial rate of return assumption. Net investment income of $5.0 billion in FY 2017 increased from a net investment income of $0.5 billion in FY 2016.

The time-weighted annualized rate of return over the past three- and five-year periods ended June 30, 2017 was 4.76% and 7.35%, respectively. The time-weighted returns for the three- and five-year periods exceeded the total fund Policy Index returns for those periods by 127 and 188 basis points, respectively. The annualized time-weighted rate of return for the ten- and twenty-five-year periods ended June 30, 2017 was 3.80% and 8.03%, respectively.

PSERS' long-term actuarial investment rate of return assumption was 7.25% during FY 2017. PSERS' Board lowered the return assumption from 7.50% to 7.25% effective with the June 30, 2016 actuarial valuation.

Figure 2 - Asset Distribution
June 30, 2017



The asset distribution of PSERS' investment portfolio at June 30, 2017, 2016, and 2015, at fair value, and including postemployment healthcare assets, is presented in Figure 2 and Table 1.

FY 2017

- ***Short-term investments*** (cash and cash equivalents) increased by $1.1 billion from $5.0 billion at June 30, 2016 to $6.1 billion at June 30, 2017. Due to a reallocation of exposure from other asset classes, PSERS increased its short-term investments during FY 2017.
- ***Fixed income investments*** increased by $0.9 billion from $4.1 billion at June 30, 2016 to $5.0 billion at June 30, 2017 mainly due to investment performance.
- ***Common and preferred stock investments*** increased by $0.8 billion from $10.5 billion at June 30, 2016 to $11.3 billion at June 30, 2017. The increase in this asset category was mainly due to higher market value increases compared to the prior fiscal year.
- ***Collective trust funds*** increased by $0.7 billion from $12.1 billion at June 30, 2016 to $12.8 billion at June 30, 2017 mostly due to investment performance.
- ***Real estate investments*** increased by $0.1 billion from $5.2 billion at June 30, 2016 to $5.3 billion at June 30, 2017 due to contributions to new and existing partnerships combined with valuation increases in partnership portfolio holdings which exceeded significant partnership distributions.
- ***Alternative investments*** increased by $0.7 billion from $11.2 billion at June 30, 2016 to $11.9 billion at June 30, 2017 due to contributions to new and existing partnerships combined with valuation increases in partnership portfolio holdings which exceeded significant partnership distributions.

Management's Discussion and Analysis (continued)

FY 2016

- ***Short-term investments*** (cash and cash equivalents) increased by $1.2 billion from $3.8 billion at June 30, 2015 to $5.0 billion at June 30, 2016. Due to a reallocation of exposure from other asset classes, PSERS decreased its short-term investments during FY 2016.
- ***Fixed income investments*** decreased by $1.0 billion from $5.1 billion at June 30, 2015 to $4.1 billion at June 30, 2016 mostly due to manager terminations and reallocation of exposure to other asset classes during FY 2016.
- ***Common and preferred stock investments*** decreased by $0.9 billion from $11.4 billion at June 30, 2015 to $10.5 billion at June 30, 2016. The decrease in this asset category was mainly due to lower market value increases in domestic and global stock investments compared to the prior fiscal year.
- ***Collective trust funds*** decreased by $1.0 billion from $13.1 billion at June 30, 2015 to $12.1 billion at June 30, 2016 mostly due to reallocation of exposure from other asset classes.
- ***Real estate investments*** decreased by $1.2 billion from $6.4 billion at June 30, 2015 to $5.2 billion at June 30, 2016 due to the sale of limited partnership interests to third parties and to significant partnership distributions which exceeded contributions to new and existing partnerships partially offset by valuation increases in partnership portfolio holdings.
- ***Alternative investments*** increased by $0.4 billion from $10.8 billion at June 30, 2015 to $11.2 billion at June 30, 2016 due to contributions to new and existing partnerships combined with valuation increases in partnership portfolio holdings which exceeded significant partnership distributions.

Securities Lending

The System's net income from securities lending activities decreased slightly from $11.9 million in FY 2016 to $11.8 million in FY 2017. Lending income rose significantly in FY 2017 due to the popularity of exchange-traded funds and master limited partnerships among borrowers, however, this was offset by increased amounts of earnings on collateral being rebated to the borrowers.

Contributions

Employer contributions increased from $3.3 billion in FY 2016 to $3.9 billion in FY 2017 due to the increase in the total employer contribution rate from 25.84% in FY 2016 to 30.03% in FY 2017. Total employer contributions increased from $2.7 billion in FY 2015 to $3.3 billion in FY 2016. This increase was primarily attributable to an increase in the total employer contribution rate from 21.40% in FY 2015 to 25.84% in FY 2016.

Total member contributions increased from $989.3 million in FY 2016 to $1.0 billion in FY 2017. The increase was mainly due to an increase in member contributions from active member payroll and purchase of service. Total member contributions increased from $984.6 million in FY 2015 to $989.3 million in FY 2016. The increase was mainly due to an increase in member contributions from active member payroll and purchase of service.

As a result of an increase in member purchase of service contributions and an increase in the receivables of member contributions from active member payroll, in the last quarter of FY 2016 to the last quarter of FY 2017, member contribution receivables increased from $336.8 million at June 30, 2016 to $349.7 million at June 30, 2017. The increase in the employer contribution rate from FY 2016 to FY 2017, resulted in the employer contribution receivables rising from $961.6 million at June 30, 2016 to $1.1 billion at June 30, 2017.

Investment Income

Net investment income increased significantly from $0.5 billion in FY 2016 to $5.0 billion in FY 2017, which is consistent with the increase in the time-weighted investment

Table 1 - Investment Balances by Asset Class

(Dollar Amounts in Thousands)

Asset Class	2017	%	2016	%	2015	%
Short-term	**$ 6,107,020**	**11.6**	$ 4,980,721	10.4	$ 3,780,778	7.5
Fixed income	**4,961,284**	**9.5**	4,052,513	8.4	5,085,921	10.0
Common and preferred stock	**11,337,865**	**21.6**	10,456,298	21.8	11,420,135	22.6
Collective trust funds	**12,816,147**	**24.4**	12,143,184	25.3	13,102,950	25.9
Real estate	**5,340,555**	**10.2**	5,166,068	10.8	6,386,295	12.6
Alternative investments	**11,922,940**	**22.7**	11,199,200	23.3	10,802,952	21.4
Total	**$ 52,485,811**	**100.0**	$ 47,997,984	100.0	$ 50,579,031	100.0

rate of return from 1.29% for FY 2016 to 10.14% for FY 2017. Net investment income decreased from $1.3 billion in FY 2015 to $0.5 billion in FY 2016, which is consistent with the decrease in the time-weighted investment rate of return from 3.04% for FY 2015 to 1.29% for FY 2016. As depicted in Figure 3, investment earnings provided 63% of PSERS' funding over the past 20 years. Net investment income also includes investment expenses as a deduction. The "Total PSERS' Benefits and Expenses" section that follows includes an analysis of investment expenses.

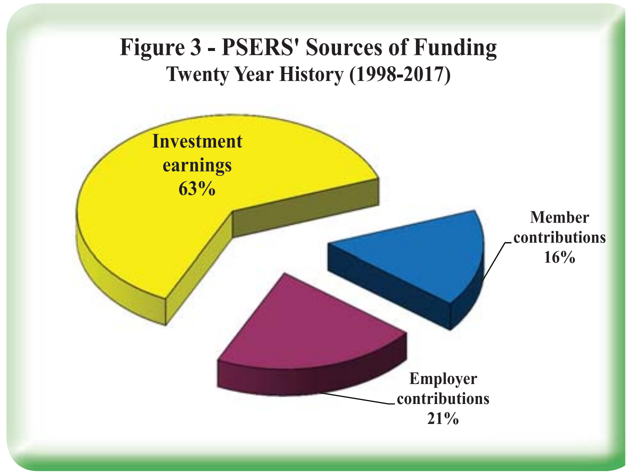


Figure 3 - PSERS' Sources of Funding
Twenty Year History (1998-2017)

Total PSERS' Benefits and Expenses

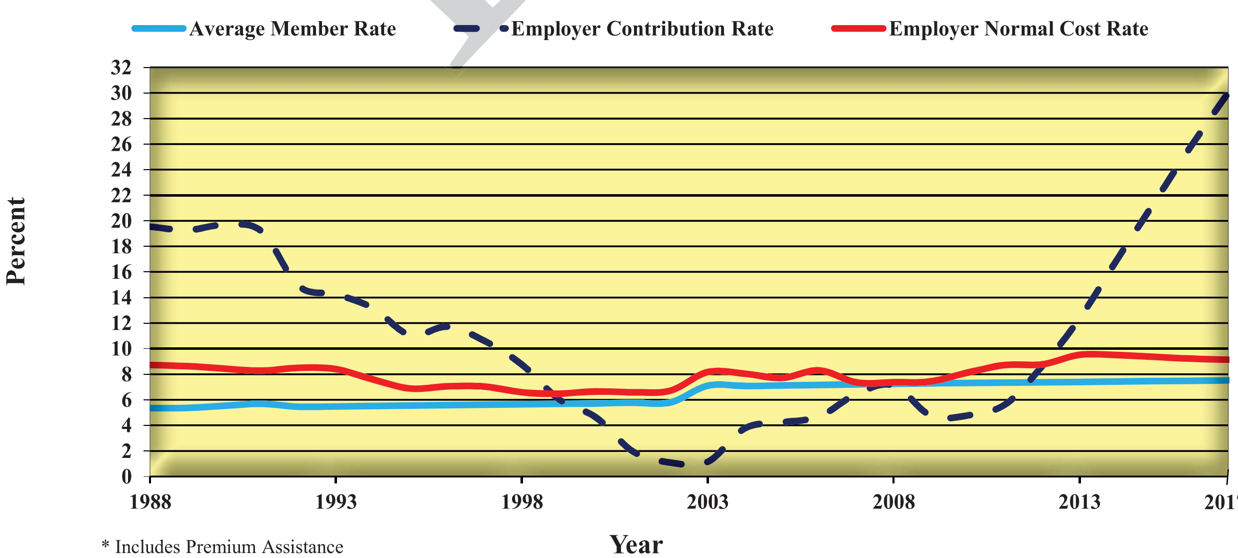
The primary source of expense during FY 2017 was for the payment of pension and healthcare benefits approximating $6.9 billion. The breakdown consisted of $6.4 billion for Pension, $110.2 million for Premium Assistance, and $340.1 million for HOP benefits. Figure 5 illustrates the significant portion of expenses attributable to benefit payments.

Total PSERS' benefit expense increased from $6.8 billion in FY 2016 to $6.9 billion in FY 2017. The increase is attributable to an ongoing increase to the average monthly benefit and an increase in the number of members receiving benefits. Pension benefits payable increased slightly from $520.5 million at June 30, 2016 compared to $529.8 million at June 30, 2017. This increase was mainly attributable to a small increase in pension payments payable which was partially offset by a small decrease in death payments payable. New retirements during FY 2017 decreased by approximately 6% from FY 2016. Total PSERS' benefit expense increased from $6.6 billion in FY 2015 to $6.8 billion in FY 2016. The increase is attributable to an ongoing increase to the average monthly benefit and an increase in the number of members receiving benefits. Pension benefits payable decreased from $560.3 million at June 30, 2015 compared to $520.5 million at June 30, 2016. This decrease was mainly attributable to lower fourth quarter retirements in FY 2016 as compared to the same period in FY 2015. New retirements during FY 2016 decreased by approximately 7% from FY 2015.

Investment expenses increased by $58.7 million from $415.8 million in FY 2016 to $474.5 million in FY 2017 mainly due to increases in management fees in fixed income, absolute return, and risk parity. This increase is mainly attributable to an increase in performance fees due to performance and growth in the asset base in the fixed income, absolute return, and risk parity asset classes. The fixed income fee increase was also attributable to a higher allocation in this asset class. As a percentage of total benefits and expenses, investment expense increased from 5.7% in FY 2016 to 6.3% in FY 2017. Investment expenses decreased by $39.4 million from $455.2 million in FY 2015 to $415.8 million in FY 2016 mainly due to a decrease in

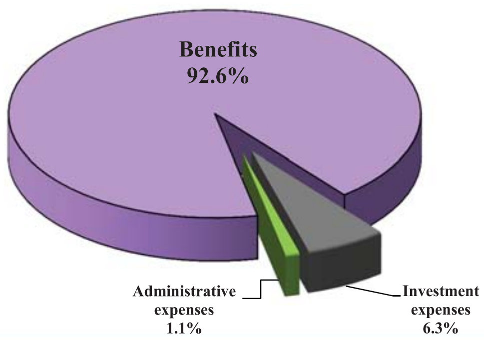
Below is a thirty-year history of PSERS' contribution rates:

Figure 4 - History of PSERS' Contribution Rates as a Percent of Payroll*



* Includes Premium Assistance

Figure 5 - Total PSERS' Benefits and Expenses
Fiscal Year Ended June 30, 2017



management fees in the absolute return and real estate asset classes, partially offset by an increase in risk parity fees. The fee decrease in the absolute return asset class is mainly attributable to higher performance fees due to the stronger performance this asset class had for FY 2015. The decrease in the real estate class is partially attributable to the sale of certain limited partnership interests and to changes in fee structure brought on by partnerships maturing. The risk parity fee increase was attributable to a higher allocation in this asset class. As a percentage of total benefits and expenses, investment expense has decreased from a high of 8.2% in FY 2013 to 6.3% in FY 2017 due to a decrease in investment expenses from $558 million in FY 2013 to $474 million in FY 2017.

PSERS continues to be one of the most transparent among large public pension funds in the nation for the disclosure of management fees. For example, certain pension funds report no or very little management fees for alternative investments because they are considered part of the cost of the investment and are netted against performance rather than shown separately. PSERS, however, obtains management fee information from each of its limited partnerships, and collective trust fund investments as well, even if it is not specifically disclosed in the fund's standard reports. This information is then utilized to fully report all relevant management fees in the System's financial statements. In addition, PSERS reports all other investment expenses, including staff compensation and overhead, consultant, legal, and bank expenses incurred.

Administrative expenses increased by $4.2 million from $80.2 million during FY 2016 compared to $84.4 million during FY 2017. This rise was mainly attributable to the increase in administrative costs for HOP due to increased membership. Administrative expenses increased by $7.7 million from $72.5 million during FY 2015 compared to $80.2 million during FY 2016. This rise was mainly attributable to the increase in administrative costs for HOP due to increased membership. As depicted in Figure 5, administrative expenses represent only 1.1% of total benefits and expenses.

New GASB Standards

In June 2015, the Governmental Accounting Standards Board (GASB) approved a Statement that reflects changes to the accounting and financial reporting of state and local government Postemployment Benefit Plans Other Than Pension Plans (OPEB). GASB Statement No.74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*, addresses financial reporting for state and local government OPEB plans. GASB 74 replaces the requirements of GASB 43, *Financial Reporting for Postemployment Benefit Plans Other Than Pensions*. Under GASB 74, an emphasis is put on accounting for OPEB plans, whereas GASB 43 dealt more with funding OPEB plans.

A key change from GASB 43 to GASB 74 is the measurement of liability. GASB 43 subtracted the Actuarial Value of Assets from the Actuarial Accrued Liability to achieve the Unfunded Actuarial Accrued Liability. GASB 74 subtracts the Fiduciary Net Position from the Total OPEB Liability to attain the Net OPEB Liability. The major difference in the measurements is that GASB 43 allowed for asset smoothing, whereas GASB 74 uses the fair value of assets as of the measurement date without smoothing.

GASB 74 separates the accounting for OPEB plans from the funding provisions used for the actuarial valuation. GASB 74 has no impact on how OPEB plans are funded. GASB 74 only impacts PSERS Health Insurance Premium Assistance Program and does not apply to PSERS Health Options Program (HOP).

Under GASB 74, PSERS' Net OPEB Liability as of June 30, 2017 was $2.0 billion and $2.2 billion as of June 30, 2016. The decline was due to an increase in the discount rate from 2.71% in FY 2016 to 3.13% in FY 2017. The discount rate directly impacts the liability calculation as the higher the discount rate the lower the liability; and conversely, the lower the discount rate the higher the liability. Since OPEB benefits are fixed at a $1,200 per year cap, the Net OPEB Liability is significantly lower than the Net Pension Liability.

Management's Discussion and Analysis (continued)

Postemployment Healthcare

PSERS administers two postemployment healthcare programs, the Health Insurance Premium Assistance Program (Premium Assistance) and the Health Options Program (HOP), for its annuitants. The following paragraphs and summary financial data provide supplementary information to the financial statements which contain the financial position and activities for the two postemployment healthcare programs.

Health Insurance Premium Assistance Program (Premium Assistance)

Financial Highlights

- Total net position decreased by \$0.8 million in FY 2017 mainly due to deductions for benefits and administrative expenses exceeding net investment income plus employer contributions. The total net position continues to be sufficient to fund one full year of benefits. The change from June 30, 2015 to June 30, 2016 was an increase of \$3.9 million due to an increase in employer contributions driven by the increase in active member payroll. This increase was slightly offset by a decrease in the contribution rate from 0.90% for FY 2015 to 0.84% for the FY 2016.
- Investments decreased from \$88.9 million at June 30, 2016 to \$82.9 million at June 30, 2017 mainly due to the increase in benefits and administrative expenses, and an increase in interfund receivables which resulted in a lower amount available to invest at June 30, 2017.

Contributions

Total employer contributions for Premium Assistance decreased from \$113.3 million in FY 2016 to \$111.0 million in FY 2017 due to the decrease in the employer contribution rate from FY 2016 to FY 2017. The contribution rate decreased from 0.84% in FY 2016 to 0.83% in FY 2017.

Investment Income

Total investment income for Premium Assistance increased slightly from \$0.5 million for FY 2016 to \$0.7 million for FY 2017 due to higher short-term interest rates.

Benefits and Expenses

Overall deductions for Premium Assistance increased from \$109.9 million in FY 2016 to \$112.5 million in FY 2017. This increase is primarily due to the increase in number of members receiving premium assistance benefits.

Health Options Program (HOP)

Financial Highlights

- Total net position increased by \$33.9 million in FY 2017 primarily due to the rise in premiums that outpaced the rise in expenses. The change from June 30, 2015 to June 30, 2016 is also primarily due to the rise in premiums that outpaced the rise in expenses.
- Total receivables increased from \$52.7 million at June 30, 2016 to \$67.2 million at June 30, 2017. The increase is tied primarily to higher premiums due to an increase in participation in the HOP and due to a large increase in the 2016 calendar year for the Centers for Medicare and Medicaid Services (CMS) reinsurance receivable estimate.
- Investments increased from \$193.3 million at June 30, 2016 to \$219.8 million at June 30, 2017 as HOP income exceeded expenses, which produced more funds for investment.
- Total liabilities increased 13.6% from \$52.1 million at June 30, 2016 to \$59.2 million at June 30, 2017. The increase is mainly due to increased participation in the program causing an increase in claims payable and administrative expense payable.

Participant and CMS Premiums

Total participant CMS premiums for HOP increased from \$359.2 million in FY 2016 to \$410.4 million in FY 2017. This increase is due to an increase in plan participation.

Investment Income

Investment income for HOP increased from \$0.3 million for FY 2016 to \$0.7 million for FY 2017 due to the increase in investments and higher short-term interest rates.

Benefits and Expenses

Overall deductions for HOP increased from \$344.4 million in FY 2016 to \$377.2 million in FY 2017. This increase is primarily due to the increase in number of members enrolled in the HOP combined with an increase in administrative costs.

Management's Discussion and Analysis (continued)

Premium Assistance

Summary of Fiduciary Net Position (Dollar Amounts in Thousands)

Assets:	FY 2017	Increase (Decrease)	FY 2016	Increase (Decrease)	FY 2015
Receivables	**$ 40,926**	$ 4,961	$ 35,965	$ 980	$ 34,985
Investments	**82,917**	(5,970)	88,887	2,892	85,995
Miscellaneous	**255**	(232)	487	(386)	873
Total Assets	**124,098**	(1,241)	125,339	3,486	121,853
Liabilities:					
Payables and other liabilities	**355**	(421)	776	(434)	1,210
Total Liabilities	**355**	(421)	776	(434)	1,210
Net Position	**$ 123,743**	$ (820)	$ 124,563	$ 3,920	$ 120,643

Summary of Changes in Fiduciary Net Position

Additions:	FY 2017	Increase (Decrease)	FY 2016	Increase (Decrease)	FY 2015
Contributions	**$ 110,985**	$ (2,322)	$ 113,307	$ (3,501)	$ 116,808
Net investment income	**663**	121	542	327	215
Total Additions	**111,648**	(2,201)	113,849	(3,174)	117,023
Deductions:					
Benefit expenses	**110,229**	1,956	108,273	1,975	106,298
Administrative expenses	**2,239**	583	1,656	(486)	2,142
Total Deductions	**112,468**	2,539	109,929	1,489	108,440
Changes in Net Position	**$ (820)**	$ (4,740)	$ 3,920	$ (4,663)	$ 8,583

Health Options Program

Summary of Fiduciary Net Position (Dollar Amounts in Thousands)

Assets:	FY 2017	Increase (Decrease)	FY 2016	Increase (Decrease)	FY 2015
Receivables	**$ 67,246**	$ 14,583	$ 52,663	$ 13,672	$ 38,991
Investments	**219,751**	26,421	193,330	7,038	186,292
Miscellaneous	**93**	(3)	96	21	75
Total Assets	**287,090**	41,001	246,089	20,731	225,358
Liabilities:					
Payables and other liabilities	**59,223**	7,073	52,150	5,702	46,448
Total Liabilities	**59,223**	7,073	52,150	5,702	46,448
Net Position	**$ 227,867**	$ 33,928	$ 193,939	$ 15,029	$ 178,910

Summary of Changes in Fiduciary Net Position

Additions:	FY 2017	Increase (Decrease)	FY 2016	Increase (Decrease)	FY 2015
Participant and CMS premiums	**$ 410,417**	$ 51,251	$ 359,166	$ 34,875	$ 324,291
Net investment income	**678**	379	299	147	152
Total Additions	**411,095**	51,630	359,465	35,022	324,443
Deductions:					
Benefit expenses	**340,096**	29,117	310,979	23,724	287,255
Administrative expenses	**37,071**	3,614	33,457	5,430	28,027
Total Deductions	**377,167**	32,731	344,436	29,154	315,282
Changes in Net Position	**$ 33,928**	$ 18,899	$ 15,029	$ 5,868	$ 9,161

Statements of Fiduciary Net Position
June 30, 2017 and 2016
(Dollar Amounts in Thousands)

	2017			
		Postemployment Healthcare		
	Pension	Premium Assistance	Health Options Program	Totals
Assets:				
Receivables:				
Members	$ 346,618	$ 3,057	$ 36	$ 349,711
Employers	1,067,100	30,540	-	1,097,640
Investment income	150,626	112	84	150,822
Investment proceeds	864,326	-	-	864,326
CMS Part D and prescriptions	-	-	67,126	67,126
Interfund receivable	-	7,217	-	7,217
Total Receivables	2,428,670	40,926	67,246	2,536,842
Investments, at fair value:				
Short-term	5,804,352	82,917	219,751	6,107,020
Fixed income	4,961,284	-	-	4,961,284
Common and preferred stock	11,337,865	-	-	11,337,865
Collective trust funds	12,816,147	-	-	12,816,147
Real estate	5,340,555	-	-	5,340,555
Alternative investments	11,922,940	-	-	11,922,940
Total Investments	52,183,143	82,917	219,751	52,485,811
Securities lending collateral pool	2,016,063	-	-	2,016,063
Capital assets (net of accumulated depreciation $29,973)	24,001	-	-	24,001
Miscellaneous	16,903	255	93	17,251
Total Assets	56,668,780	124,098	287,090	57,079,968
Liabilities:				
Accounts payable and accrued expenses	92,777	272	2,288	95,337
Benefits payable	529,833	83	24,539	554,455
HOP Participant premium advances	-	-	32,396	32,396
Investment purchases and other payables	800,996	-	-	800,996
Obligations under securities lending	2,016,063	-	-	2,016,063
Interfund payable	7,217	-	-	7,217
Other liabilities	66,558	-	-	66,558
Total Liabilities	3,513,444	355	59,223	3,573,022
Net position restricted for pension and postemployment healthcare benefits	$ 53,155,336	$ 123,743	$ 227,867	$ 53,506,946

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

Statements of Fiduciary Net Position
June 30, 2017 and 2016
(Dollar Amounts in Thousands)

	2016			
		Postemployment Healthcare		
	Pension	Premium Assistance	Health Options Program	Totals
Assets:				
Receivables:				
Members	$ 333,289	$ 3,427	$ 46	$ 336,762
Employers	930,286	31,276	-	961,562
Investment income	415,987	233	39	416,259
Investment proceeds	1,426,968	-	-	1,426,968
CMS Part D and prescriptions	-	-	52,578	52,578
Interfund receivable	-	1,029	-	1,029
Total Receivables	3,106,530	35,965	52,663	3,195,158
Investments, at fair value:				
Short-term	4,698,504	88,887	193,330	4,980,721
Fixed income	4,052,513	-	-	4,052,513
Common and preferred stock	10,456,298	-	-	10,456,298
Collective trust funds	12,143,184	-	-	12,143,184
Real estate	5,166,068	-	-	5,166,068
Alternative investments	11,199,200	-	-	11,199,200
Total Investments	47,715,767	88,887	193,330	47,997,984
Securities lending collateral pool	2,092,729	-	-	2,092,729
Capital assets (net of accumulated depreciation $28,096)	22,871	-	-	22,871
Miscellaneous	11,607	487	96	12,190
Total Assets	52,949,504	125,339	246,089	53,320,932
Liabilities:				
Accounts payable and accrued expenses	118,899	203	3,250	122,352
Benefits payable	520,462	72	22,079	542,613
HOP Participant premium advances	-	-	26,821	26,821
Investment purchases and other payables	327,136	501	-	327,637
Obligations under securities lending	2,092,729	-	-	2,092,729
Interfund payable	1,029	-	-	1,029
Other liabilities	57,189	-	-	57,189
Total Liabilities	3,117,444	776	52,150	3,170,370
Net position restricted for pension and postemployment healthcare benefits	$ 49,832,060	$ 124,563	$ 193,939	$ 50,150,562

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

Statements of Changes in Fiduciary Net Position
Years Ended June 30, 2017 and 2016
(Dollar Amounts in Thousands)

	2017			
		Postemployment Healthcare		
	Pension	Premium Assistance	Health Options Program	Totals
Additions:				
Contributions:				
Members	$ 1,013,847	$ -	$ -	$ 1,013,847
Employers	3,832,773	110,985	-	3,943,758
Total contributions	4,846,620	110,985	-	4,957,605
HOP Participant premiums	-	-	336,646	336,646
Centers for Medicare & Medicaid Services premiums	-	-	73,771	73,771
Investment income:				
From investing activities:				
Net appreciation (depreciation) in fair value of investments	4,204,585	(337)	-	4,204,248
Short-term	67,694	1,024	704	69,422
Fixed income	156,837	-	-	156,837
Common and preferred stock	295,427	-	-	295,427
Collective trust funds	3,379	-	-	3,379
Real estate	236,650	-	-	236,650
Alternative investments	493,426	-	-	493,426
Total investment activity income	5,457,998	687	704	5,459,389
Investment expenses	(474,441)	(24)	(26)	(474,491)
Net income from investing activities	4,983,557	663	678	4,984,898
From securities lending activities:				
Securities lending income	21,395	-	-	21,395
Securities lending expense	(9,590)	-	-	(9,590)
Net income from securities lending activities	11,805	-	-	11,805
Total net investment income	4,995,362	663	678	4,996,703
Total Additions	9,841,982	111,648	411,095	10,364,725
Deductions:				
Benefits	6,452,651	110,229	340,096	6,902,976
Refunds of contributions	20,928	-	-	20,928
Administrative expenses	45,127	2,239	37,071	84,437
Total Deductions	6,518,706	112,468	377,167	7,008,341
Net increase (decrease)	3,323,276	(820)	33,928	3,356,384
Net position restricted for pension and postemployment healthcare benefits:				
Balance, beginning of year	49,832,060	124,563	193,939	50,150,562
Balance, end of year	$ 53,155,336	$ 123,743	$ 227,867	$ 53,506,946

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

Statements of Changes in Fiduciary Net Position
Years Ended June 30, 2017 and 2016
(Dollar Amounts in Thousands)

	2016			
		Postemployment Healthcare		
	Pension	Premium Assistance	Health Options Program	Totals
Additions:				
Contributions:				
Members	$ 989,266	$ -	$ -	$ 989,266
Employers	3,189,510	113,307	-	3,302,817
Total contributions	4,178,776	113,307	-	4,292,083
HOP Participant premiums	-	-	308,132	308,132
Centers for Medicare & Medicaid Services premiums	-	-	51,034	51,034
Investment income:				
From investing activities:				
Net appreciation (depreciation) in fair value of investments	(160,712)	(154)	-	(160,866)
Short-term	17,418	734	337	18,489
Fixed income	145,326	-	-	145,326
Common and preferred stock	311,356	-	-	311,356
Collective trust funds	3,168	-	-	3,168
Real estate	246,217	-	-	246,217
Alternative investments	314,270	-	-	314,270
Total investment activity income	877,043	580	337	877,960
Investment expenses	(415,706)	(38)	(38)	(415,782)
Net income from investing activities	461,337	542	299	462,178
From securities lending activities:				
Securities lending income	13,187	-	-	13,187
Securities lending expense	(1,318)	-	-	(1,318)
Net income from securities lending activities	11,869	-	-	11,869
Total net investment income	473,206	542	299	474,047
Total Additions	4,651,982	113,849	359,465	5,125,296
Deductions:				
Benefits	6,340,256	108,273	310,979	6,759,508
Refunds of contributions	20,069	-	-	20,069
Administrative expenses	45,118	1,656	33,457	80,231
Total Deductions	6,405,443	109,929	344,436	6,859,808
Net increase (decrease)	(1,753,461)	3,920	15,029	(1,734,512)
Net position restricted for pension and postemployment healthcare benefits:				
Balance, beginning of year	51,585,521	120,643	178,910	51,885,074
Balance, end of year	$ 49,832,060	$ 124,563	$ 193,939	$ 50,150,562

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

Notes to Financial Statements
Years Ended June 30, 2017 and 2016

1. Organization and Description of the System

(A) Organization

The System was established on July 18, 1917, under the provisions of Pamphlet Law 1043, No. 343 as a governmental cost-sharing multiple-employer plan that provides retirement allowances and other benefits to its members. Membership in the System is mandatory for nearly all qualifying public school employees in the Commonwealth of Pennsylvania (Commonwealth). At June 30, 2017, there were 775 participating employers, generally school districts. Membership at June 30, 2016, the most recent year for which actual amounts are available, is presented in Table 2.

The Public School Employees' Retirement Board (Board) is established by state law as an independent administrative board of the Commonwealth. The Board exercises control and management of the System, including the investment of its assets. The Board has fifteen members including the Commonwealth's Secretary of Education, the Commonwealth's Secretary of Banking and Securities, the State Treasurer, the Executive Director of the Pennsylvania School Boards Association, one member appointed by the Governor, six elected members (three from among the System's certified members, one from among the System's noncertified members, one from among the System's annuitants, and one from among school board members in Pennsylvania), two members from the Senate, and two members from the House of Representatives. Effective with Act 5 which was enacted on June 12, 2017, one of the Governor's appointees was replaced with the Commonwealth's Secretary of Banking and Securities who is also appointed by the Governor.

The State Treasurer is the custodian of the System's Fund. The retirement plan of the System is a contributory defined benefit plan for which the benefit payments to members and contribution provisions by employers and employees are specified in the Pennsylvania Public School Employees' Retirement Code (Code). Changes in benefit and contribution provisions for the retirement plan must be made by legislation. Pursuant to state law, all legislative bills and amendments proposing to change the System's retirement plan are to be accompanied with an actuarial note prepared by an enrolled pension actuary from the Independent Fiscal Office (IFO) providing an estimate of the cost and actuarial effect of the proposed change.

Table 2 - Membership as of June 30, 2016	
Active members:	
Vested	188,386
Nonvested	68,694
Total active members	**257,080**
Inactive members:	
Retirees and beneficiaries currently receiving benefits	224,828
Inactive members and vestees entitled to but not receiving benefits	23,437
Total retirees and other members	**248,265**
Total number of members	**505,345**

Based upon criterion of financial accountability as defined by governmental accounting standards, the System is considered a component unit of the Commonwealth of Pennsylvania financial reporting entity and is included in the Comprehensive Annual Financial Report of the Commonwealth of Pennsylvania.

(B) Pension Plan

i. Pension Benefits

Under the provisions of the 1975 revision of the Code by the Pennsylvania General Assembly, members are eligible for monthly retirement benefits upon reaching (a) age 62 with at least 1 year of credited service; (b) age 60 with 30 or more years of credited service; or (c) 35 or more years of service regardless of age. Act 120 of 2010 (Act 120) preserves the benefits of existing members and introduced benefit reductions for individuals who become new members on or after July 1, 2011. Act 120 created two new membership classes, Membership Class T-E (Class T-E) and Membership Class T-F (Class T-F). To qualify for normal retirement, Class T-E and Class T-F members must work until age 65 with a minimum of 3 years of service or attain a total combination of age and service that is equal to or greater than 92 with a minimum of 35 years of service. The Internal Revenue Code (IRC) limitation on the annual benefits for a defined benefit plan was $215,000 for 2017 and $210,000 for 2016.

Benefits are generally equal to 2% or 2.5%, depending upon membership class, of the member's final average salary (as defined in the Code) multiplied by the number of years of credited service. For members whose membership started prior to July 1, 2011, after completion of five years of service, a member's right to the defined benefits is vested and early retirement benefits may be elected. For Class T-E and Class T-F members, the right to benefits is vested after ten years of service. Active members may purchase credit for various types of school and non-school service on a lump-sum, installment purchase basis, or through an actuarially calculated benefit reduction. Class T-E and Class T-F members must purchase Non Qualifying Part

Notes to Financial Statements (continued)

The contribution rates based on qualified member compensation for virtually all members are presented below:

PSERS members whose membership started prior to July 1, 2011:		
Membership Class T-C	Active Members hired before July 22, 1983	5.25%
Membership Class T-C	Active Members hired on or after July 22, 1983	6.25%
Membership Class T-D	Active Members hired before July 22, 1983	6.50%
Membership Class T-D	Active Members hired on or after July 22, 1983	7.50%
PSERS members whose membership started on or after July 1, 2011 (Act 120 members):		
Membership Class T-E*		7.50%
Membership Class T-F**		10.30%

* Shared risk program could cause future contribution rates to fluctuate between 7.5% and 9.5%

** Shared risk program could cause future contribution rates to fluctuate between 10.3% and 12.3%

Time service and most other types of non-school or non-state service credit at full actuarial cost. Class T-E and Class T-F members must purchase credit for Non Qualifying Part Time service within 365 days of enrollment in the System.

In addition to regular retirement benefits, the System also provides for disability retirement benefits and death benefits. Participants are eligible for disability retirement benefits after completion of five years of credited service. Such benefits are generally equal to 2% or 2.5%, depending upon membership class, of the member's final average salary (as defined in the Code) multiplied by the number of years of credited service, but not less than one-third of such salary nor greater than the benefit the member would have had at normal retirement age. Members over normal retirement age may apply for disability benefits.

Death benefits are payable upon the death of an active member who has reached age 62 with at least one year of credited service (age 65 with at least three years of credited service for Class T-E and Class T-F members) or who has at least five years of credited service (ten years for Class T-E and Class T-F members). Such benefits are actuarially equivalent to the benefit that would have been effective if the member had retired on the day before death.

Members with credited service in the Commonwealth of Pennsylvania State Employees' Retirement System (SERS) may elect to transfer service to the Public School Employees' Retirement System upon commencement of employment in the public school system. Similarly, a member with credited service in the System may transfer such service to SERS upon becoming a member of that system.

All members are fully vested in their individual balance in the Members' Savings Account which is described in Note 3. All non-vested members may receive a refund of their individual balance of member contributions and interest from the Members' Savings Account upon termination of public school employment. Vested members who enrolled prior to July 1, 2011 may elect to receive a return of their accumulated contributions and interest upon their retirement which results in a reduced monthly annuity. Effective with Act 5 which was enacted on June 12, 2017, vested Class T-E and Class T-F members can now withdraw their accumulated contributions and interest from the Members' Savings Account upon their retirement.

ii. Contributions

The contribution policy is set by the Code and requires contributions by active members, employers, and the Commonwealth. The System's funding policy provides for periodic employer and Commonwealth contributions at actuarially determined rates, expressed as a percentage of annual covered payroll, such that they, along with employee contributions and an actuarially determined rate of investment return, are adequate to accumulate assets to pay retirement benefits when due. Level percentage of payroll employer contribution rates are determined using the entry age normal actuarial funding method. This method determines the amount of contributions necessary to (1) fully fund all current costs, (also known as normal cost), which represents the estimated amount necessary to pay for the benefits earned by the employees during the current service year; and (2) liquidate the prior service cost for service earned prior to the current service year and subsequent benefit increases, which represents the amount necessary to fund accrued liabilities over the appropriate amortization periods.

Contribution rates for active members are set by law (redefined with the provisions of Act 9 of 2001 and Act 120) and are dependent upon membership class. The Internal Revenue Code (IRC) limitation on the annual compensation for a defined benefit plan was $270,000 for 2017 and $265,000 for 2016.

Active members who enrolled between July 1, 2001, the effective date of Act 9, and June 30, 2011 are Membership Class T-D (Class T-D). The contribution rates for all members in Class T-D were effective January 1, 2002. For Act 120 members, all new members automatically become Class T-E members. New members, however, have a one-time opportunity to elect Class T-F within 45 days of receiving written notification from PSERS. Failure to elect Class T-F at time of original eligibility will make the member ineligible for Class T-F forever. Act 120 introduced a shared risk program that could affect Class T-E and Class T-F members' contribution rates in future fiscal years. With the shared risk program Class T-E and Class T-F members benefit when investments of the fund are doing well and share some of the risk when investments underperform. The member contribution rate will stay within the specified range allotted for Class T-E or Class T-F; but could increase or decrease by 0.5% every three years starting July 1, 2015, dependent on investment performance of PSERS. The member contribution rate will never go below the base rate of 7.5% for Class T-E and 10.3% for Class T-F members, or above 9.5% for Class T-E and 12.3% for Class T-F members.

The total contribution rate for the employers and the Commonwealth was 30.03% and 25.84% (29.20% and 25.00% for pension component) of qualified compensation for the years ended June 30, 2017 and 2016, respectively.

Act 120 suppressed the employer contribution rate by using rate caps in future years to keep the rate from rising too high, too fast for budgetary purposes.

The rate caps limit the amount the pension component of the employer contribution rate can increase over the prior year's rate. For FY 2014 and thereafter, the rate can increase no more than 4.5% plus the premium assistance contribution rate.

The rate cap remains at 4.5% until the rate cap no longer applies, i.e., the rise in the employer contribution rate is less than the rate cap in effect at that time. For FY 2017, the actuarially calculated contribution rate exceeded the prior year's rate by less than 4.5%. As a result, the rate collars are no longer in effect. Since the rate caps no longer apply, the employer normal cost is the contribution rate floor.

According to requirements established in Act 29 of 1994, the Commonwealth reimburses school entity employers a portion of the employer contributions paid to the System. All school entity employers are reimbursed by the Commonwealth at least 50% of the total employer contributions based on the total contribution rate. The Commonwealth reimburses certain school entity employers at a rate greater than 50% based upon non-pension criteria which stipulate that the entity must have a Commonwealth Department of Education calculated Market Value / Personal Income Aid Ratio in excess of .5000. School entities remit 100% of total employer contributions directly to the System. The Commonwealth remits 50% of the total employer contributions for employers other than school entities directly to the System. All contributions from employers and the Commonwealth are shown as employer contributions on the Statements of Changes in Fiduciary Net Position.

(C) Postemployment Healthcare Plans

i. Health Insurance Premium Assistance Program

(a) Premium Assistance Benefits

The System provides a Health Insurance Premium Assistance Program (Premium Assistance) for all eligible annuitants who qualify and elect to participate. Under this program, employer contribution rates for Premium Assistance are established to provide reserves in the Health Insurance Account that are sufficient for the payment of Premium Assistance benefits for each succeeding year. Effective January 1, 2002, under the provisions of Act 9 of 2001, participating eligible annuitants are entitled to receive premium assistance payments equal to the lesser of $100 per month or their out-of-pocket monthly health insurance premium. To receive premium assistance, eligible annuitants must obtain their health insurance through either their school employer or the PSERS' Health Options Program. As of June 30, 2017 there were no assumed future benefit increases to participating eligible annuitants in the Premium Assistance program. Membership at June 30, 2016, the most recent year for which actual amounts are available, is presented in Table 3.

(b) Contributions

A portion of each employer contribution to the System is set aside for the funding of Premium Assistance. The Premium Assistance contribution rate is set at a level necessary to establish reserves sufficient to provide Premium Assistance payments for all participating eligible members for the subsequent fiscal year. The portion of the total contribution rate for employers used to fund Premium Assistance was 0.83% and 0.84% for the years ended June 30, 2017 and 2016, respectively.

Table 3 - Premium Assistance Membership at June 30, 2016

Retirees and beneficiaries currently receiving benefits	93,151
Inactive members and vestees entitled to but not receiving benefits	346
Total retirees and other inactive members	**93,497**
Total active members	**257,080**
Total number of members	**350,577**

ii. Health Options Program

The Health Options Program (HOP) is a PSERS-sponsored voluntary health insurance program for the sole benefit of annuitants of PSERS, spouses of annuitants, survivor annuitants and their dependents who participate in HOP. The HOP is funded exclusively by the premiums paid by its participants for the benefit coverage they elect. HOP offers several health plans. Participants may select among two self-funded Medicare supplement plans, three Medicare Rx plans, and multiple Medicare Advantage plans for those eligible for Medicare. Participants not eligible for Medicare have a choice of a self-funded high deductible indemnity plan and multiple managed care plans. Medicare Advantage and managed care plans are available to retirees residing in the plan's service area. The Medicare Advantage and managed care plans are provided by private insurance companies or managed care organizations and benefits are fully insured. The Medicare supplement and high deductible plans are self-funded and claims are adjudicated by a third party administrator. HOP also offers dental benefits through a fully insured carrier. The Medicare Rx Options and the prescription drug benefit of the high deductible plan for those not eligible for Medicare are also self-funded.

HOP uses a pharmacy benefits manager to administer the benefits. Effective January 1, 2006, PSERS entered into an Employer/Union Entity contract with the Centers for Medicare and Medicaid Services (CMS) to operate a voluntary Medicare Prescription Drug Plan (PDP). Monthly premiums are received from CMS covering the 82,010 participants in the PDP. An independent actuarial consulting firm sets the rates for the self-funded benefits. The HOP maintains reserves for claims that are Incurred But Not Reported (IBNR) and for claim fluctuation for the self-funded benefit plans. At June 30, 2017 and 2016 PSERS recorded $16,239,000 and $14,701,000, respectively, in IBNR. The IBNR is included in benefits payable. The PSERS pension fund assets are not available to fund or satisfy obligations of the HOP.

2. Summary of Significant Accounting Policies

(A) Basis of Accounting

The financial statements of the System are prepared on the accrual basis of accounting under which expenses are recorded when the liability is incurred, revenues are recorded in the accounting period in which they are earned and become measurable, and investment purchases and sales are recorded as of their trade date. Member and employer contributions are recognized in the period for which employees' salaries are reported. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan.

The accounting and reporting policies of the System conform to accounting principles generally accepted in the United States of America (GAAP). The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of additions and deductions in fiduciary net position during the reporting period. Actual results could differ from those estimates.

(B) Investments

The System's investments are reported at fair value. Fair value is the amount that the System can reasonably expect to receive for an investment in a current sale between a willing buyer and a willing seller, that is, other than in a forced or liquidation sale. See Note 4(B) for the description of the Fair Value of Investments.

Net appreciation (depreciation) is determined by calculating the change in fair value of investments between the beginning of the year and end of the year, less purchases of investments at cost, plus sales of investments at fair value.

Investment purchases and sales are recorded as of the trade date. Interest income is comprised of dividend, interest, and other investment income. Dividend income is recognized on the ex-dividend date. Interest and other investment income is recognized when earned.

Investment expenses consist of investment manager fees and those administrative expenses directly related to the System's investment operations. Investment proceeds receivable generally includes unsettled investment sales and unsettled investment purchases are included in investment purchases and other liabilities. At June 30, 2017, investment proceeds receivable also includes $480,771,000 in receivables due to the sale of limited partnership and real estate interests during FY 2015 and FY 2016.

(C) Capital Assets

Capital assets consist primarily of data processing equipment, software, and internally developed computer software recognized as intangible assets. Capital assets are depreciated using the straight-line method over an estimated useful life of five years. Intangible assets are amortized using the straight-line method over an estimated useful life of twenty years for assets purchased prior to July 1, 2012 and 5 years for assets purchased after June 30, 2012.

Notes to Financial Statements (continued)

(D) Benefits Payable

Benefits payable identifies the obligations of the System, on an accrual basis, at the end of the fiscal year. It includes the estimated retirement and death benefits payable, premium assistance benefits payable, and the HOP IBNR claims for its participants.

(E) Pensions for Employees of the System

For purposes of measuring the net pension liability, deferred outflows of resources, deferred inflows of resources, and pension expense, information about the fiduciary net position of the Pennsylvania State Employees' Retirement System (SERS) and additions to/deductions from SERS' fiduciary net position have been determined on the same basis as they are reported by SERS. Please refer to Note 8 for additional information regarding SERS. PSERS' net pension liability for its employees to SERS is reported in Other liabilities. Pension expense is reported in administrative expenses and is detailed on the Schedule of Administrative and Investment Expenses Supplementary Schedule.

(F) Compensated Absences

The System uses the accrual basis of accounting for measuring vacation leave, sick leave, and other compensated absences liabilities. Employees of the System are paid for accumulated vacation leave upon termination or retirement. Retiring employees of the System that meet service, age, or disability requirements are paid between 30% and 100% of sick days available at retirement, up to 161 maximum days paid. At June 30, 2017 and 2016, $3,789,000 and $3,226,000, respectively, were accrued for unused vacation and sick leave for the System's employees and are included in Accounts payable and accrued expenses on the Statements of Fiduciary Net Position.

(G) Participant Premium Advances

Premium advances in the fiscal years ended June 30, 2017 and 2016 are for HOP premiums related to health care coverage to be provided in calendar years 2017 and 2016, respectively.

(H) Federal Income Taxes

The Internal Revenue Service (IRS) issued a determination letter dated March 16, 2017 which stated that the plan and its underlying trust qualify under the provisions of Section 501(a) of the IRC and therefore are exempt from federal income taxes.

(I) Risk Management

The System is exposed to various liabilities and risks of loss, including, without limitation, the ordinary risks of investment losses, risks related to theft or destruction of assets, liabilities resulting from injuries to employees, and liabilities resulting from court challenges to fiduciary decisions. As an administrative agency of the Commonwealth of Pennsylvania, the System is accorded sovereign immunity. For claims not shielded by sovereign immunity, the System participates in certain Commonwealth pooled insurance programs and requires asset managers to carry certain insurance coverage for the protection of the System. The System has implemented a self-insurance program for fiduciary and director and officer liability coverage. During the past three fiscal years, insurance settlements did not exceed insurance coverage.

(J) Reclassifications

Certain 2016 amounts have been reclassified in conformity with the 2017 presentation. These reclassifications had no effect on net position restricted for pension benefits or the change in fiduciary net position.

(K) Members Receivables

Members receivables include an amount for members' obligations to the System for the purchase of service credit. Members have a variety of options to remit purchase of service payments:

- Remit a lump sum payment.
- Request an installment plan from one to seven years where the member's employer establishes a payroll deduction process. The member's employer then forwards monthly payments of the withheld amounts to PSERS.
- Accept an actuarial reduction debt through which the amount of the purchase plus accumulated interest will reduce the member's retirement or death benefit.
- Rollover funds from an eligible distribution.

The following is a summary of the members receivables at June 30, 2017 and 2016:

	(Dollar Amounts in Thousands)	
	2017	2016
Pension:		
Member contributions	**$ 85,451**	$ 71,708
Purchase of service	**258,799**	255,509
Other	**2,368**	6,072
Total Members Receivables	**$ 346,618**	$ 333,289

(L) Interfund Transactions and Balances

Interfund transfers of assets take place on a regular recurring basis between Pension and Premium Assistance. The transfers occur upon receipt of employer contributions and payment of benefits or expenses. The interfund receivables and payables related to interfund activity are classified under receivables and liabilities on the financial statements.

(M) Adoption of New Accounting Standards

During the fiscal year ended June 30, 2016 the System adopted GASB Statement No. 72, *Fair Value Measurement and Application* which addresses accounting and financial reporting issues related to fair value measurements.

During the fiscal year ended June 30, 2016, the System adopted GASB Statement No. 73, *Accounting and Financial Reporting for Pensions and Related Assets That Are Not within the Scope of GASB Statement 68, and Amendments to Certain Provisions of GASB Statements 67 and 68*. Upon examination of GASB 73, it was determined to have no current impact on PSERS.

During the fiscal year ended June 30, 2017 the System adopted GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans.* GASB 74 requires changes in presentation of the financial statements, notes to the financial statements and required supplementary information. Significant changes include an actuarial calculation of total and net OPEB liability, the sensitivity of the net OPEB liability to the discount rate, sensitivity of healthcare cost trends and increased investment activity disclosures.

GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions* (OPEB), was issued June 2015. GASB 75 is effective for reporting periods beginning after June 15, 2017. GASB 75 addresses financial accounting and reporting for governments that provide or finance OPEB. GASB 75 replaces GASB 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*, as amended, and GASB No. 57, *OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans*, for OPEB. GASB 75 requires reporting a liability on the face of the financial statements for OPEB provided to employees and requires OPEB plans to present note disclosures and required supplementary information on OPEB liabilities. The System is evaluating GASB 75 and its impact on the financial statements.

GASB Statement No. 78, *Pensions Provided through Certain Multiple-Employer Defined Benefit Pension Plans*, was issued December 2015. GASB 78 addresses issues regarding the scope and applicability of GASB 68, *Accounting and Financial Reporting for Pensions*, to exclude certain pensions that are not fully associated with state or local government plans. Upon examination, it was determined to have no current impact on the System.

GASB Statement No. 79, *Certain External Investment Pools and Pool Participants*, was issued December 2015. GASB 79 addresses financial reporting for certain external investment pools and pool participants. Upon examination, it was determined to have no current impact on the System.

GASB Statement No. 80, *Blending Requirements for Certain Component Units - An Amendment of GASB Statement No.14*, was issued January 2016. GASB 80 improves financial reporting by clarifying the financial statement presentation requirements for certain component units. Upon examination, it was determined to have no current impact on PSERS.

GASB Statement No. 81, *Irrevocable Split - Interest Agreements*, was issued March 2016. GASB 81 improves accounting and financial reporting for irrevocable split interest agreements. Upon examination, it was determined to have no current impact on PSERS.

GASB Statement No. 82, *Pension Issues-An Amendment of GASB Statements No. 67, No. 68, and No. 73*, was issued March 2016. GASB 82 addresses certain issues with the presentation of payroll-related measures in required supplementary information, the selection of assumptions and the treatment of deviations from the guidance in an Actuarial Standard of Practice for financial reporting purposes, and the classification of payments made by employers to satisfy employee (member) contribution requirements. Upon examination, it was determined that the System is currently presenting information in accordance with the requirements.

Notes to Financial Statements (continued)

Table 4 - Account Balance

	(Dollar Amounts in Thousands)	
	2017	2016
Pension:		
State Accumulation Account	$ **(19,030,322)**	$ (18,726,300)
Members' Savings Account	**15,500,215**	14,907,732
Annuity Reserve Account	**56,685,443**	53,650,628
	$ **53,155,336**	$ 49,832,060
Postemployment Healthcare:		
Health Insurance Account	$ **123,743**	$ 124,563
Health Insurance Program Account	**227,867**	193,939
	$ **351,610**	$ 318,502

3. Description of Accounts

The Code requires the System to maintain the following accounts which represent reserves held for future and current benefit payments as follows and as illustrated in Table 4.

(A) State Accumulation Account

The State Accumulation Account is credited with contributions from the Commonwealth and the employers. Additionally, interest earnings of the System (after crediting the Members' Savings Account with 4% interest and the reserve for retirement with 5.50% statutory interest) are credited to this account. Each year, the necessary amounts, as determined by the actuary for the payment of retirement, disabilities, and death benefits, are transferred from the State Accumulation Account to the Annuity Reserve Account increasing the reserve credit to the 7.25% valuation assumption rate determined by the actuary. All administrative expenses necessary for the operation of the System, except for Premium Assistance and HOP expenses, are paid from the State Accumulation Account.

(B) Members' Savings Account

The Members' Savings Account is credited with all contributions made by active members of the System. Interest is added to the member's individual account at an annual rate of 4%.

Upon death or retirement of a member, the accumulated contributions plus interest are transferred to the Annuity Reserve Account for subsequent payment of benefits.

(C) Annuity Reserve Account

The Annuity Reserve Account represents the amounts transferred from the Members' Savings and State Accumulation Accounts, plus additional contributions made by the Commonwealth and employers for the payment of supplemental annuities and cost-of-living increases. All death, disability, and retirement benefits are paid from this account. Annual interest of 5.50% is credited to the Annuity Reserve Account.

(D) Health Insurance Account

The Health Insurance Account is credited with contributions from the employers for Premium Assistance. Effective January 1, 2002, under the provisions of Act 9 of 2001, participating eligible annuitants are entitled to receive premium assistance payments equal to the lesser of $100 per month or their out-of-pocket monthly health insurance premium. The Health Insurance Account pays all administrative expenses necessary to operate the Premium Assistance.

(E) Health Insurance Program Account

The Health Insurance Program Account is credited with premiums from members of the HOP and from CMS. All benefits related to the HOP (premium payments to the insurance companies and self-funded benefits) are paid from this account. The Health Insurance Program Account pays all administrative expenses necessary to operate the HOP.

4. Investments

(A) Summary of Investments

The Board has the responsibility to invest and reinvest available funds of the System in accordance with the guidelines and limitations set forth in the Code and other applicable state law. The Board accomplishes the daily management of the System's investments through investment advisors who act as agents for the System and through internal investment managers.

The Board invests the funds of the System using the Prudent Investor Standard, as articulated in the Code, which means "the exercise of that degree of judgment, skill and care under the circumstances then prevailing which persons of prudence, discretion, and intelligence who are familiar with such matters exercise in the management of their own affairs not in regard to speculation, but in regard to the permanent disposition of the fund, considering the probable income to be derived therefrom as well as the probable safety of their capital." The Board has adopted its investment policy to formally document investment objectives and responsibilities. This policy, as well as applicable state law, establishes guidelines for permissible investments of the System.

(B) Fair Value of Investments

i. Fair Value Levels

PSERS measures and records its investments using fair value measurement guidelines established by generally accepted accounting principles. These guidelines recognize a three-tiered fair value hierarchy as follows:

- **Level 1 inputs:** Level 1 inputs are quoted prices (unadjusted) for identical assets or liabilities in active markets. A quoted price for an identical asset or liability in an active market (e.g., an equity security traded on a major exchange) provides the most reliable fair value measurement and, if available, should be used to measure fair value in that particular market.

- **Level 2 inputs:** The categorization of an asset/liability as Level 1 requires that it is traded in an active market. If an instrument is not traded in an active market, it may fall to Level 2. Level 2 inputs are inputs that are observable, either directly or indirectly, but do not qualify as Level 1.

- **Level 3 inputs:** Reporting entities may use unobservable inputs to measure fair value if relevant observable inputs are not available, thereby allowing for situations in which there is little, if any, market activity for the asset or liability at the measurement date. These unobservable inputs are considered Level 3.

Debt, equity, and derivative instrument securities classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets for those securities. Debt securities classified in Level 2 of the fair value hierarchy are valued using a matrix pricing technique. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices and recently printed security specific trading levels. Short-term securities are carried at cost, which approximates fair value, unless they have published market prices or quotations from national securities exchanges or securities pricing services, in which case they are valued at the published market price. Fixed income securities and common and preferred stocks are generally valued based on published market prices and quotations from national securities exchanges or securities pricing services. Securities which are not traded on a national securities exchange are valued by the respective fund manager or other third parties based on similar sales.

Directly-owned real estate investments are primarily valued based on appraisals performed by independent appraisers and, for properties not appraised, the present value of the projected future net income stream is used. Real estate owned investments are reported net of related debt borrowed against the market value of the property. At June 30, 2016, $132,000,000 in line of credit advances were netted against the related property valuation and classified as Level 1. During FY 2017, the System entered into an open-ended repurchase agreement with another lender and used the proceeds to pay back the line of credit balance. The repurchase agreement, which had a balance of $132,000,000 at June 30, 2017, is netted against the related property valuation and classified as Level 1. It is payable at an interest rate equivalent to 1 month LIBOR plus 40 basis points and is collateralized by certain fixed income investments of the System.

Derivative instruments classified in Level 1 of the fair value hierarchy are valued using observable exchange, dealer, or broker market pricing.

The Premium Assistance investment assets have the following recurring fair value measurements at June 30, 2017 and 2016:

- PSERS Short-Term Investment Fund of $63,290,000 and $23,944,000 for the years ended 2017 and 2016, respectively, is valued using pricing quoted in active markets for those securities (Level 1 inputs).

- Other domestic short-term investments of $19,628,000 and $64,943,000 for the years ended 2017 and 2016, respectively, are valued using a matrix pricing model (Level 2 inputs).

The HOP investment assets have the following recurring fair value measurements at June 30, 2017 and 2016:

- PSERS Short-Term Investment Fund of $89,755,000 and $89,125,000 for the fiscal years ended 2017 and 2016, respectively, is valued using pricing quoted in active markets for those securities (Level 1 inputs).

- Other domestic short-term investments of $129,996,000 and $104,205,000 for the fiscal years ended 2017 and 2016, respectively, are valued using pricing quoted in active markets for those securities (Level 1 inputs).

At June 30, 2017, the System had the following recurring fair value measurements.

Investments and Derivative Instruments Measured at Fair Value
(Dollar Amounts in Thousands)

		Fair Value Measurements Using		
	2017	Level 1	Level 2	Level 3
Pension investments:				
Investments by fair value level				
Short term:				
PSERS Short-Term Investment Fund	**$ 5,565,178**	$ 5,565,178	$ -	$ -
Other domestic short-term	**105,174**	30,832	74,342	-
International short-term	**134,000**	132,601	1,399	-
	5,804,352	5,728,611	75,741	-
Fixed income:				
Domestic asset-backed and mortgage-backed securities	**1,589,887**	-	1,585,156	4,731
U.S. government and agency obligations	**1,073,883**	1,073,883	-	-
Domestic corporate and taxable municipal bonds	**1,927,373**	554,004	1,373,369	-
International fixed income	**370,141**	-	370,141	-
	4,961,284	1,627,887	3,328,666	4,731
Common and preferred stock:				
Domestic common and preferred stock	**5,649,599**	5,609,569	-	40,030
International common and preferred stock	**5,688,266**	5,688,266	-	-
	11,337,865	11,297,835	-	40,030
Directly-owned real estate	**367,078**	(132,000)	-	499,078
Total investments by fair value level	**22,470,579**	$ 18,522,333	$ 3,404,407	$ 543,839
Investments measured at the net asset value (NAV)				
Collective trust funds	**12,816,147**			
Equity real estate	**4,973,477**			
Alternative investments:				
Private equity	**5,883,902**			
Special situations (Private debt)	**5,053,043**			
Venture capital	**985,995**			
	11,922,940			
Total investments measured at the NAV	**29,712,564**			
Total investments measured at fair value	**$ 52,183,143**			
Investment derivative instruments				
Futures	**$ (10,152)**	$ (10,152)	$ -	$ -
Total return type swaps	**(2,413)**	(2,413)	-	-
Foreign exchange contracts	**(195,195)**	(195,195)	-	-
Options	**12,009**	12,009	-	-
Total investment derivative instruments	**$ (195,751)**	$ (195,751)	$ -	$ -

At June 30, 2016, the System had the following recurring fair value measurements.

Investments and Derivative Instruments Measured at Fair Value
(Dollar Amounts in Thousands)

		Fair Value Measurements Using		
	2016	Level 1	Level 2	Level 3
Pension investments:				
Investments by fair value level				
Short term:				
PSERS Short-Term Investment Fund	$ 4,459,476	$ 4,459,476	$ -	$ -
Other domestic short-term	132,603	129,859	-	2,744
International short-term	106,425	105,455	970	-
	4,698,504	4,694,790	970	2,744
Fixed income:				
Domestic asset-backed and mortgage-backed securities	1,450,885	-	1,450,885	-
U.S. government and agency obligations	923,896	909,123	14,773	-
Domestic corporate and taxable municipal bonds	1,195,561	-	1,195,561	-
International fixed income	482,171	-	481,327	844
	4,052,513	909,123	3,142,546	844
Common and preferred stock:				
Domestic common and preferred stock	5,331,356	5,329,831	-	1,525
International common and preferred stock	5,124,942	5,124,867	-	75
	10,456,298	10,454,698	-	1,600
Directly-owned real estate	330,599	(132,000)	-	462,599
Total investments by fair value level	19,537,914	$ 15,926,611	$ 3,143,516	$ 467,787
Investments measured at the net asset value (NAV)				
Collective trust funds	12,143,184			
Equity real estate	4,835,469			
Alternative investments:				
Private equity	5,792,265			
Special situations (Private debt)	4,441,297			
Venture capital	965,638			
	11,199,200			
Total investments measured at the NAV	28,177,853			
Total investments measured at fair value	$ 47,715,767			
Investment derivative instruments				
Futures	$ 32,019	$ 32,019	$ -	$ -
Total return type swaps	302,321	302,321	-	-
Foreign exchange contracts	(9,932)	(9,932)	-	-
Total investment derivative instruments	$ 324,408	$ 324,408	$ -	$ -

The valuation method for investments measured at the net asset value (NAV) per share (or its equivalent) at June 30, 2017 and 2016 are presented in the following tables.

Investments measured at the NAV
(Dollar Amounts in Thousands)

	June 30, 2017	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Collective trust funds (a)	$ **12,816,147**	$ -	see note (a)	0 - 90 Days
Equity real estate (b)	**4,973,477**	2,063,824	see note (b)	
Alternative investments:				
Private equity (c)	**5,883,902**	2,855,180	see note (c)	
Special situations (Private debt) (d)	**5,053,043**	2,933,173	see note (d)	
Venture capital (e)	**985,995**	324,830	see note (e)	
	11,922,940			
Total investments measured at the NAV	$ **29,712,564**			

Investments measured at the NAV
(Dollar Amounts in Thousands)

	June 30, 2016	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Collective trust funds (a)	$ 12,143,184	$ 160,000	see note (a)	0 - 90 Days
Equity real estate (b)	4,835,469	2,205,905	see note (b)	
Alternative investments:				
Private equity (c)	5,792,265	3,404,544	see note (c)	
Special situations (Private debt) (d)	4,441,297	3,175,050	see note (d)	
Venture capital (e)	965,638	422,282	see note (e)	
	11,199,200			
Total investments measured at the NAV	$ 28,177,853			

ii. Investments at Net Asset Value (NAV)

(a) Collective trust fund investments (CTF) consist primarily of domestic and international institutional funds. The fair value of CTF is based on the reported share value of the respective fund. CTF are managed by state chartered banks for which various state banking departments have regulatory oversight and investment advisors for which regulatory agencies such as the Securities and Exchange Commission have regulatory oversight. Investments that are not subject to this oversight are subject to annual independent audits. Redemption frequency for these assets range from monthly, to quarterly, to annual. One asset has a 2-year hard lock that expires on December 31, 2017.

(b) Equity real estate includes real estate funds that invest primarily in U.S., Latin American, European and Asian commercial real estate. Fund investments can be made across the capital structure of each property venture. The fair value of the investments in this type have been determined using the NAV per share (or its equivalent) of the System's ownership interest in partners' capital. These investments cannot be easily redeemed. Distributions from each fund may be received as: 1) cash flows from operations or 2) return of capital from dispositions. It is expected that the underlying assets of the funds will be liquidated over the next 7 to 12 years.

(c) Private equity includes U.S. buyout funds and international buyout funds that invest mostly in private companies across a variety of industries (although they may invest in public companies from time to time). The fair value of the investments in this type have been determined using the NAV per share (or its equivalent) of the System's ownership interest in partners' capital. These investments cannot be easily redeemed. The nature of private equity investments is that distributions are received through the liquidation of the underlying assets of the fund. The expected holding period of a private equity portfolio company is 3 to 7 years.

(d) Special situations (Private debt) includes private investment funds that invest across the fixed income capital structure primarily in North America and Western Europe. The fair value of the investments in this type have been determined using the NAV per share (or its equivalent) of the System's ownership interest in partners' capital. These investments cannot be easily redeemed. Instead, the nature of the investments in this type is that distributions are received through the orderly liquidation of the underlying assets of the fund throughout the stated term of the fund. It is expected that the underlying assets of the funds will be liquidated over the next 3 to 7 years.

(e) Venture capital includes U.S. based private funds, that finance young, relatively small, rapidly growing companies, typically in either the health care or information technology sectors. The fair value of the investments in this type have been determined using the NAV per share (or its equivalent) of the System's ownership interest in partners' capital. These investments cannot be easily redeemed. The nature of venture capital investments is that distributions are received through the liquidation of the underlying assets of the fund. It is expected that the underlying assets of the funds will be liquidated over the next 5 to 10 years.

(C) Deposit and Investment Risk Disclosures

i. Deposits

Custodial credit risk for deposits is the risk that, in the event of a financial institution failure, the System would not be able to recover the value of the deposits. The Commonwealth's Treasury Department is the custodian of the System's funds. Commonwealth Treasury Department deposits must be held in insured depositories approved by the Commonwealth's Board of Finance and Revenue and must be fully collateralized.

The System, through its third party administrator, maintains certain bank deposits for the operation of its voluntary HOP. These deposits are not required to be collateralized by statute or policy. These deposits totaled $129,996,000 and $104,205,000 at June 30, 2017 and 2016, respectively, and are under the custody of M&T Bank which has an A rating by Standard and Poor's (S&P) and an Aa3 rating by Moody's Investor Services (Moody's).

The following table discloses aggregate market value by credit quality rating category. Many securities have ratings from more than one NRSRO and sometimes those ratings differ from one NRSRO to another. The data listed below uses the rating (expressed as S&P equivalent) available from Fitch, Moody's and/or S&P that indicates the lowest credit quality at June 30, 2017 and 2016.

	(Dollar Amounts in Thousands)	
	2017	2016
Quality Rating	**Fair Value**	Fair Value
AAA	**$ 797,203**	$ 638,124
AA	**210,405**	153,353
A	**414,985**	238,902
BBB	**739,916**	455,746
BB and Below	**431,513**	254,925
NR*	**11,419,428**	10,592,798
Total Exposed to Credit Risk	**14,013,450**	12,333,848
US Government Guaranteed**	**1,531,272**	1,331,821
Total Fixed Income and Short-Term Investments	**$ 15,544,722**	$ 13,665,669

* Not Rated securities include $4,476,419 and $4,632,435 in collective trust funds and $5,718,223 and $4,572,545 in PSERS Short Term Investment Fund assets at at June 30, 2017 and 2016 respectively.

** Comprised of U.S. government and agency obligations explicitly guaranteed by the U.S. government and not considered to have credit risk.

ii. Investment Risks

The System's investments, including derivatives and other similar investments, may be subject to various risks. Among these risks are concentration of credit risk, custodial credit risk, credit risk, interest rate risk, and foreign currency risk. The policies addressing each one of these risks, discussed in more detail below, are contained within the Investment Policy Statement, Objectives, and Guidelines reviewed and approved annually by the Board. Due to the level of risk associated with certain investments, it is possible that changes in the values of investments may occur in the near term and that such changes could materially affect the amounts reported in the Statements of Fiduciary Net Position.

For derivatives exposed to credit risk, the table below presents aggregate market value by the least favorable credit rating provided by NRSROs at June 30, 2017 and 2016.

	(Dollar Amounts in Thousands)	
	2017	2016
Quality Rating	**Fair Value**	Fair Value
A A	**$ (804)**	$ -
A	**(9,451)**	281,337
BBB	**8,830**	-
BB	**(988)**	20,984
Total Swaps-Total Return	**$ (2,413)**	$ 302,321

(a) Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the magnitude of the System's investment in a single issuer. At of June 30, 2017 and 2016 the System had no single issuer that exceeded 5% of total investments. Investments issued or explicitly guaranteed by the U.S. government and investments in mutual funds, external investment pools, and other pooled investments were excluded.

(b) Custodial Credit Risk

Custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, the System would not be able to recover the value of investment or collateral securities that are in the possession of an outside party. In accordance with a contractual relationship between the Commonwealth's Treasury Department and its custodial agent, substantially all investments, where securities are used as evidence of the investment, are held by the custodian in book-entry form in the System's name. Those investments are defined as insured or registered investments for which the securities are held by the System or its agent and, therefore, have a very minimal level of custodial credit risk. The remaining investments, which do not have securities that are used as evidence of the investment, are primarily in collective trust funds and limited partnerships, which include real estate and alternative investments.

(c) Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The credit risk of a debt instrument is measured by nationally recognized statistical rating organizations (NRSRO) such as Fitch Investor Services (Fitch), Moody's, and S&P. Annually, the Board establishes an asset allocation plan. This plan manages the overall credit risk of the fixed income asset class through a clearly defined long-term asset allocation policy. This policy establishes a long-term target allocation of the fixed income asset class at 36.0% of the investment portfolio. Leverage is utilized for 11.0%. The fixed income target allocation consists of:

At June 30, 2017 and 2016, the System's fixed income portfolio had the following option-adjusted durations by fixed income sector:

	(Dollar Amounts in Thousands)			
	2017		2016	
Investment Type	**Option-Adjusted Duration**	**Fair Value**	Option-Adjusted Duration	Fair Value
Domestic asset-backed and mortgage-backed securities	**1.7**	**$ 1,589,281**	0.9	$ 1,450,885
U.S. government and agency obligations	**9.6**	**1,073,883**	8.2	923,896
Domestic corporate and taxable municipal bonds	**1.8**	**1,927,373**	3.2	1,195,561
International fixed income	**5.9**	**370,140**	6.5	482,171
Collective trust funds	**3.2**	**4,476,419**	3.8	4,632,435
PSERS Short-Term Investment Fund	**0.1**	**6,262,343**	0.1	4,572,545
Total	**2.1***	**$ 15,699,439**	2.6*	$ 13,257,493

* Fixed income investment managers enter into futures contracts to adjust the durations of their portfolios as a whole rather than any particular investment type within the portfolio. In total, the futures contracts have adjusted PSERS' total portfolio duration upward by 0.1 at June 30, 2017 and 2016. The total portfolio option-adjusted duration is calculated by weighting each investment type by fair value.

At June 30, 2017 and 2016, the System had the following foreign currency exposures for its derivatives (except for foreign exchange contracts which are included in Note 5):

	(Dollar Amounts in Thousands)	
	2017	2016
Currency	**Notional Value**	Notional Value
Euro	$ **393,290**	$ 300,680
Japanese yen	**193,886**	122,950
British pound sterling	**140,837**	108,612
Canadian dollar	**43,820**	54,550
Australian dollar	**41,056**	32,856
Hong Kong dollar	**9,177**	7,425
Total Futures Contracts and Total Return Swaps	$ **822,066**	$ 627,073

- An allocation of 8.0% of the portfolio has been made to the U.S. core plus segment of the fixed income asset class benchmarked to the Barclays Capital U.S. Aggregate Index. The U.S. core plus allocation is composed of primarily investment grade, relatively liquid, public domestic bonds with an overall weighted-average NRSRO credit rating of A or better.

- An allocation of 8.0% of the portfolio has been made to the high yield segment of the fixed income asset class benchmarked to the Barclays Capital U.S. High Yield Index. The high yield allocation is composed of less liquid public non-investment grade fixed income securities with an overall weighted-average NRSRO credit rating of B- or better.

- An allocation of 15.0% of the portfolio has been made to the Treasury Inflation-Protected Securities (TIPS) segment of the fixed income asset class benchmarked to the Barclays Capital World Government Inflation-Linked Bond Index (Hedged to USD) and composed of primarily government issued TIPS with an overall weighted-average NRSRO credit rating of AA or better. The portfolio manager is permitted to leverage the portfolio using TIPS total return swaps up to 3:1.

- An allocation of 1.0% of the portfolio has been made to the non-U.S. developed markets fixed income asset class benchmarked to the Barclays Capital Global Aggregate GDP-weighted Developed Market ex-U.S. (Unhedged) Index composed of primarily investment grade, relatively liquid non-U.S. public bonds with an overall weighted-average NRSRO credit rating of A or better.

- An allocation of 1.0% of the portfolio has been made to the emerging markets fixed income asset class benchmarked to the Barclays Capital EM Local Currency-Government-MV Weighted (Unhedged) -10% Country Cap Index composed of primarily investment grade, relatively liquid non-U.S. public bonds with an overall weighted-average NRSRO credit rating of BB- or better.

- An allocation of 3.0% of the portfolio has been made to cash benchmarked to the Merrill Lynch U.S. Treasury Bill 0-3 Months Index composed of primarily investment grade, relatively liquid U.S. and non-U.S. public bonds with an overall weighted-average NRSRO credit rating of AA or better.

(d) Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of a fixed income investment. The System manages its interest rate risk by diversifying the fixed income portfolio and maintaining the fixed income portfolio at a Board-approved effective duration range of the benchmark index.

Duration is a measure of the approximate sensitivity of a bond's value to interest rate changes. The higher the duration, the greater the changes in fair value when interest rates change. For example, a duration of 4.0 would mean that, given a 100-basis point change up/down in rates, a bond's price would move down/up approximately 4.0%. PSERS measures interest rate risk using option-adjusted duration, which recognizes the fact that yield changes may change the expected cash flows due to embedded options.

(e) Foreign Currency Risk

Foreign currency risk is the risk that fluctuations in exchange rates will adversely affect the fair value of an investment. As part of the System's program to manage risk and enhance returns, the System invests in non-U.S. markets. Investment managers in non-U.S. equity and global fixed income may hedge their non-U.S. foreign currency exposure back to U.S. dollars.

Non-U.S. currency exposures at June 30, 2017 and 2016:

2017

(Dollar Amounts in Thousands)

Currency	Equity	Fixed Income	Alternative Investments & Real Estate	Short-Term*	Currency Hedge	Total Fair Value
Euro	$ 1,102,951	$ 59,764	$ 1,649,694	$ 25,326	$ (2,097,348)	$ 740,387
British pound sterling	868,409	11,755	158,464	31,441	(889,499)	180,570
South Korean won	159,331	-	-	(202)	91	159,220
Taiwan new dollar	147,406	-	-	87	(50)	147,443
South African rand	71,882	11,236	-	137	(1,517)	81,738
Indian rupee	72,416	-	-	13	-	72,429
Brazil real	63,652	3,170	-	(2,927)	427	64,322
Danish krone	132,302	259	-	1,776	(73,854)	60,483
Mexican peso	25,532	18,353	-	(2,085)	(4,282)	37,518
Other non-U.S. currencies	2,588,546	119,637	-	67,521	(2,996,129)	(220,425)
Total	$ 5,232,427	$ 224,174	$ 1,808,158	$ 121,087	$ (6,062,161)	$ 1,323,685

2016

(Dollar Amounts in Thousands)

Currency	Equity	Fixed Income	Alternative Investments & Real Estate	Short-Term*	Currency Hedge	Total Fair Value
Euro	$ 906,601	$ 104,468	$ 1,787,026	$ 36,889	$ (1,879,668)	$ 955,316
British pound sterling	878,211	34,096	124,921	27,078	(768,640)	295,666
South Korean won	117,185	10,286	-	182	(3,834)	123,819
Taiwan new dollar	100,552	-	-	3,067	(4,738)	98,881
Indian rupee	75,260	7,328	-	4,043	(2,037)	84,594
South African rand	56,661	7,626	-	(90)	1,917	66,114
Danish krone	133,456	808	-	1,051	(73,384)	61,931
Mexican new peso	44,094	15,302	-	407	(2,680)	57,123
Brazil real	33,249	16,468	-	269	(14,432)	35,554
Other non-U.S. currencies	2,514,294	135,675	27	72,313	(2,647,952)	74,357
Total	$ 4,859,563	$ 332,057	$ 1,911,974	$ 145,209	$ (5,395,448)	$ 1,853,355

* Includes investment receivables and payables

(D) Securities Lending

The System participates in a securities lending program with a third party agent. Under this program, the lending agent loans securities (equities, fixed income, and money market instruments) to independent brokers and dealers in exchange for U.S. dollar cash collateral in an amount not less than 102% of the fair value of any securities loaned. Collateral is marked-to-market daily. If the fair value of the collateral held falls below the minimum guidelines for securities loaned, additional collateral is obtained. The lending agent invests the cash collateral in accordance with reinvestment guidelines approved by the System.

At June 30, 2017 and 2016, the System had no credit risk exposure to borrowers because the amounts the System owed the borrowers exceeded the amounts the borrowers owed the System. Under the securities lending program, the lending agent provides indemnification to the System if a borrower fails to return borrowed securities (and the collateral is inadequate to replace the loaned securities) or fails to pay income distributions on them. The lending agent also provides indemnification to the System if investment of cash collateral results in investment loss. There were no losses during the fiscal years ended June 30, 2017 and 2016 resulting from a default of the borrowers or the lending agent.

All securities loans can be terminated on demand by either the System or the borrower, although the average term of the loan is one day. There were no term loans at June 30, 2017 and 2016.

Table 5 - Notional Amounts of Derivatives

The table presented below summarizes the aggregate notional or contractual amounts for the System's derivative financial instruments at June 30, 2017 and 2016.

	(Dollar Amounts in Thousands)	
	2017	2016
Futures contracts - long:		
Treasury futures	**$ 2,624,369**	$ 1,960,030
U.S. equity futures	**856,999**	1,163,719
Non-U.S. equity futures	**755,187**	774,998
Commodity futures	**314,613**	325,440
Non-U.S. bond futures	**184,169**	255,428
Futures contracts - short:		
Treasury futures	**21,878**	78,100
Non- U.S. bond futures	**4,282**	1,596
Foreign exchange forward and spot contracts, gross	**6,355,027**	5,558,947
Options - puts purchased	**899,648**	-
Swaps - total return type	**8,638,151**	7,105,829

Cash collateral is invested in a short-term collateral investment pool that is managed by the lending agent, is segregated from all other clients of the lending agent, and is not subject to custodial credit risk. The System's income from securities lending represents its pro-rata share from participating in the program. The weighted-average maturity of the investments in the pool was one day at June 30, 2017 and 2016. During the fiscal years ended June 30, 2017 and 2016, the mismatch between the maturities of the investments made with cash collateral and the maturities of the securities loans may have posed some interest rate risk to the System. In the event of a default, the lending agent may use the collateral to replace the loaned securities.

At June 30, 2017, the fair value of loaned securities was $1,972,488,000. The fair value of the associated collateral was $2,016,063,000, all of which was cash. At June 30, 2016, the fair value of loaned securities was $2,046,869,000. The fair value of the associated collateral was $2,092,729,000, all of which was cash.

5. Derivative and Other Similar Investments

The System enters into a variety of financial contracts, which include options and futures. The System also enters into foreign exchange positions, such as forward and spot

The fair values of derivative instruments outstanding at June 30, 2017 and 2016 are classified by type and by the changes in fair value of the derivative instrument in the table below.

	(Dollar Amounts in Thousands)			
	Change in Fair Value Gain/(Loss) FY 2017		**Fair Value at June 30, 2017**	
Investment Derivative Type	**Classification**	**Amount**	**Classification**	**Amount**
Futures	Investment income	**$ (10,152)**	Receivable/(Payable)	**$ (10,152)**
Total return type swaps	Investment income	**(2,413)**	Receivable/(Payable)	**(2,413)**
Foreign exchange contracts	Investment income	**(195,195)**	Receivable/(Payable)	**(195,195)**
Options	Investment income	**(14,933)**	Investment	**12,009**
Total		**$ (222,693)**		**$ (195,751)**
	Change in Fair Value Gain/(Loss) FY 2016		Fair Value at June 30, 2016	
Investment Derivative Type	Classification	Amount	Classification	Amount
Futures	Investment income	$ 32,019	Receivable/(Payable)	$ 32,019
Total return type swaps	Investment income	302,321	Receivable/(Payable)	302,321
Foreign exchange contracts	Investment income	(9,932)	Receivable/(Payable)	(9,932)
Total		$ 324,408		$ 324,408

Notes to Financial Statements (continued)

The following table summarizes the System's foreign exchange contracts by currency at June 30, 2017 and 2016:

2017

(Dollar Amounts in Thousands)

Currency	**Buys**	**Unrealized Gain/(Loss)**	**Sells**	**Unrealized Gain/(Loss)**
Euro	**$ 78,103**	**$ 2,259**	**$ 2,174,510**	**$ (130,531)**
Japanese yen	**21,517**	**(324)**	**1,156,315**	**(137)**
Australian dollar	**12,038**	**454**	**437,390**	**(1,579)**
British pound sterling	**8,490**	**57**	**894,487**	**(32,333)**
Canadian dollar	**7,640**	**261**	**540,836**	**(4,998)**
Swiss franc	**4,276**	**138**	**373,082**	**(13,447)**
Czech koruna	**3,921**	**70**	**293**	**(3)**
New Zealand dollar	**3,272**	**121**	**31,661**	**(855)**
Polish zloty	**2,832**	**23**	**2,676**	**(123)**
Mexican peso	**2,540**	**(11)**	**6,822**	**31**
Swedish krona	**1,250**	**22**	**154,593**	**(7,316)**
Turkish lira	**897**	**5**	**882**	**(1)**
Singapore dollar	**611**	**5**	**73,296**	**(2,106)**
Other non-US currencies	**1,694**	**4**	**359,103**	**(4,881)**
Total	**$ 149,081**	**$ 3,084**	**$ 6,205,946**	**$ (198,279)**

2016

(Dollar Amounts in Thousands)

Currency	**Buys**	**Unrealized Gain/(Loss)**	**Sells**	**Unrealized Gain/(Loss)**
Euro	$ 19,838	$ (117)	$ 1,897,067	$ 17,760
British pound sterling	13,225	(607)	781,865	67,533
Japanese yen	11,240	247	1,110,034	(68,467)
Brazilian real	5,778	92	20,210	(1,252)
Taiwan new dollar	5,495	16	10,233	(76)
Swedish krona	3,460	(26)	124,446	1,871
Canadian dollar	3,014	(4)	444,470	(5,649)
Hong Kong dollar	2,594	3	158,615	(156)
Indian rupee	2,120	(8)	4,157	4
Swiss franc	1,832	2	331,245	(5,772)
Singapore dollar	1,286	31	67,283	(1,806)
Israeli shekel	394	-	28,597	(132)
Danish krone	287	1	73,672	571
Australian dollar	76	-	350,030	(13,036)
Other non-US currencies	16,229	385	70,156	(1,340)
Total	$ 86,868	$ 15	$ 5,472,080	$ (9,947)

contracts to obtain or hedge foreign currency exposure; swap agreements to gain exposure to certain sectors of the equity and fixed income markets; collateralized mortgage obligations (CMOs); other forward contracts; and U.S. Treasury STRIPS. The System is not a dealer, but an end-user of these instruments. The contracts are used primarily to enhance performance and/or reduce the volatility of the portfolio. The System is exposed to credit risk in the event of non-performance by counterparties to financial instruments. The System generally enters into transactions only with high quality institutions. Legal risk is mitigated through selection of executing brokers and review of all documentation. The System is exposed to market risk, the risk that future changes in market conditions may make an instrument less valuable. Exposure to market risk is managed in accordance with risk limits set by senior management, through buying or selling instruments or entering into offsetting positions.

The notional or contractual amounts of derivatives indicate the extent of the System's involvement in the various types and uses of derivative financial instruments and do not measure the System's exposure to credit or market risks and do not necessarily represent amounts exchanged by the parties. The amounts exchanged are determined by reference to the notional amounts and the other terms of the derivatives.

Futures contracts are contracts in which the buyer agrees to purchase and the seller agrees to make delivery of a specific financial instrument at a predetermined date and price. Gains and losses on futures contracts are settled daily based on a notional (underlying) principal value and do not involve an actual transfer of the specific instrument. Futures contracts are standardized and are traded on exchanges. The exchange assumes the risk that a counterparty will not pay and generally requires margin payments to minimize such risk. In addition, the System enters into short sales, sales of securities it does not presently own, to neutralize the market risk of certain equity positions. Initial margin requirements on futures contracts and collateral for short sales are provided by investment securities pledged as collateral and by cash held by various brokers. Although the System has the right to access individual pledged securities, it must maintain the amount pledged by substituting other securities for those accessed. The value of securities pledged and the amount of cash held at June 30, 2017 and 2016 represent a restriction on the amount of assets available at year-end for other purposes.

Option contracts provide the option purchaser with the right, but not the obligation, to buy or sell the underlying security at a set price during a period or at a specified date. The option writer is obligated to buy or sell the underlying security if the option purchaser chooses to exercise the option. The System generally uses exchange listed currency, index, stock, and futures options. During FY 2017, the System purchased over-the-counter put options on the S&P 500 Index. The fair value of these option contracts of $12,009,000 at June 30, 2017 is included in the Statement of Fiduciary Net Position. The System held no option positions at June 30, 2016.

Foreign exchange contracts involve an agreement to exchange the currency of one country for the currency of another country at an agreed-upon price and settlement date. To reduce the risk of counterparty non-performance, the investment managers generally enter into these contracts with institutions regarded as meeting high standards of credit worthiness. The contracts reported in Table 5 primarily include forwards. The $6,355,027,000 of foreign currency contracts outstanding at June 30, 2017 consist of "buy" contracts, which represent the U.S. dollar equivalents of commitments to purchase foreign currencies of $149,081,000 and "sell" contracts, which represent U.S. dollar equivalents of commitments to sell foreign currencies of $6,205,946,000. The $5,558,947,000 of foreign currency contracts outstanding at June 30, 2016 consist of "buy" contracts of $86,868,000 and "sell" contracts of $5,472,080,000. The unrealized loss on contracts of $(195,195,000) and $(9,932,000) at June 30, 2017 and 2016, respectively, is included in the Statements of Fiduciary Net Position and represents the fair value of the contracts.

Swap agreements provide for periodic payments at predetermined future dates between parties based on the change in value of underlying securities, indexes, or interest rates. During the year ended June 30, 2017 and 2016, the System entered into total return type swaps. Under the total return type swap arrangements, the System receives the net return of certain equity securities or indexes in exchange for a short-term rate minus a spread or a predetermined fixed charge. The receivable (payable) on the total return type swap contracts of $(2,413,000) and $302,321,000 at June 30, 2017 and 2016, respectively, is included in the Statements of Fiduciary Net Position and represents the fair value of the contracts. The contracts have varying maturity dates ranging from July 1, 2017 to September 22, 2026.

The System also invests in mortgage-backed securities (MBS) such as CMOs and MBS forwards to maximize yields. These securities are sensitive to prepayments of mortgages, which may result from a drop in interest rates. The MBS forwards are subject to credit risk in the event of nonperformance by counterparties. The fair value of CMOs at June 30, 2017 and 2016 is $517,910,000 and $477,412,000, respectively.

The System invests in U.S. Treasury STRIPS which essentially act as zero coupon bonds and are subject to market volatility from a rise or drop in interest rates.

Through certain collective trust funds, the System also indirectly holds various derivative financial instruments. The collective trust funds invest in futures and options thereon; forward foreign currency contracts; options; interest rate, currency, equity, index, and total return swaps; interest-only STRIPS; and CMOs, to enhance the performance and/or reduce the volatility of their portfolios.

6. Net Pension Liability of Participating Employers

The components of the net pension liability of the participating employers at June 30, 2017 were as follows:

(Dollar amounts in thousands)

Total pension liability	$	102,543,741
Less: Plan fiduciary net position		53,155,336
Employer net pension liability	$	49,388,405
Plan fiduciary net position as a percentage of the total pension liability		51.84%

Actuarial Assumptions

The total pension liability at June 30, 2017 was determined by rolling forward the System's total pension liability at June 30, 2016 to June 30, 2017 using the following actuarial assumptions, applied to all periods included in the measurement:

- Actuarial cost method - Entry Age Normal - level % of pay.
- Investment return - 7.25%, includes inflation at 2.75%.
- Salary growth - Effective average of 5.00%, comprised of inflation of 2.75% and 2.25% for real wage growth and for merit or seniority increases.
- Mortality rates were based on the RP-2014 Mortality Tables for Males and Females, adjusted to reflect PSERS' experience and projected using a modified version of the MP-2015 Mortality Improvement Scale.
- PSERS' Board approved new actuarial assumptions effective for the June 30, 2016 actuarial valuation. The new assumptions were used to calculate the net pension liability at June 30, 2016 and are reflected above.

Investments

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

Table 6 - Pension Asset Allocation

Pension - Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Global public equity	20.0%	5.1%
Fixed income	36.0%	2.6%
Commodities	8.0%	3.0%
Absolute return	10.0%	3.4%
Risk parity	10.0%	3.8%
Infrastructure/MLPs	8.0%	4.8%
Real estate	10.0%	3.6%
Alternative investments	15.0%	6.2%
Cash	3.0%	0.6%
Financing (LIBOR)	(20.0%)	1.1%
	100.0%	

The pension plan's policy in regard to the allocation of invested plan assets is established and may be amended by the Board. Plan assets are managed with a long-term objective of achieving and maintaining a fully funded status for the benefits provided through the pension.

For the year ended June 30, 2017, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 10.15%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested. Table 6 shows the Board's adopted asset allocation policy and best estimates of geometric real rates of return for each major asset class at June 30, 2017.

Discount Rate

The discount rate used to measure the total pension liability was 7.25%. The projection of cash flows used to determine the discount rate assumed that contributions from plan members will be made at the current contribution rate and that contributions from employers will be made at contractually required rates, actuarially determined. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the Net Pension Liability

Table 7 presents the net pension liability, calculated using the discount rate of 7.25%, as well as what the net pension liability would be if it were calculated using a discount rate that is 1-percentage point lower (6.25%) or 1-percentage point higher (8.25%) than the current rate:

Table 7 - Sensitivity of the Net Pension Liability

(Dollar amounts in thousands)

	1% Decrease	Current Discount Rate	1% Increase
	6.25%	7.25%	8.25%
Net pension liability	$ 60,792,831	$ 49,388,405	$ 39,759,842

7. Net Other Postemployment Benefits (OPEB) Liability of Participating Employers

The components of the net OPEB liability of the participating employers at June 30, 2017 for the Premium Assistance Program were as follows:

(Dollar amounts in thousands)

Total OPEB liability	$	2,161,155
Less: Plan fiduciary net position		123,743
Employer net OPEB liability	$	2,037,412
Plan fiduciary net position as a percentage of the total OPEB liability		5.73%

Postemployment Healthcare Plans

PSERS provides a Health Insurance Premium Assistance program funded by employer contributions which makes up the OPEB liability.

HOP is a PSERS sponsored voluntary health insurance program funded exclusively by the premiums paid by its participants for benefit coverage they elect. The HOP is not part of the OPEB liability.

Actuarial Assumptions

The total OPEB liability at June 30, 2017 was determined by rolling forward the System's total OPEB liability at June 30, 2016 to June 30, 2017 using the following actuarial assumptions, applied to all periods included in the measurement:

- Actuarial cost method - Entry Age Normal - level % of pay.
- Investment return - 3.13% - S&P 20 Year Municipal Bond Rate.
- Salary growth - Effective average of 5.00%, comprised of inflation of 2.75% and 2.25% for real wage growth and for merit or seniority increases.
- Premium Assistance reimbursement is capped at $1,200 per year.
- Assumed Healthcare cost trends were applied to retirees with less than $1,200 in premium assistance per year.
- Mortality rates were based on the RP-2014 Mortality Tables for Males and Females, adjusted to reflect PSERS' experience and projected using a modified version of the MP-2015 Mortality Improvement Scale.

Investments

The Board has the responsibility to invest and reinvest available funds of the System in accordance with the guidelines and limitations set forth in the Code and other applicable state law. The Board accomplishes the daily management of the System's investments through investment advisors who act as agents for the System and through internal investment managers. Investments consist primarily of short term assets designed to protect the principal of plan assets. Table 8 reflects the Fund's OPEB asset allocation policy and best estimates of geometric real rates of return for each asset class at June 30, 2017.

Table 8 - OPEB Asset Allocation

OPEB - Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Cash	76.4%	0.6%
Fixed Income	23.6%	1.5%
	100.0%	

Under the program, employer contribution rates for Premium Assistance are established to provide reserves in the Health Insurance Account that are sufficient for the payment of Premium Assistance benefits for each succeeding year.

For the year ended June 30, 2017, the annual money-weighted rate of return on OPEB plan investments, net of OPEB plan investment expense, was 0.90%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Discount Rate

The discount rate used to measure the total OPEB liability was 3.13%. The Health Insurance Premium Assistance Program is funded by employer contributions. Under the plan's funding method, the OPEB plan's fiduciary net position was not projected to be sufficient to meet projected future benefit payments. Therefore, the plan is considered a "pay-as-you-go" plan and and a discount rate of 3.13%, which represents the S&P 20 year Municipal Bond Rate at June 30, 2017, was applied to all projected benefit payments to measure the total OPEB liability.

Sensitivity of the Net OPEB Liability

Table 9 presents the net OPEB liability, calculated using the discount rate of 3.13%, as well as what the net OPEB liability would be if it were calculated using a discount rate that is 1-percentage point lower (2.13%) or 1-percentage point higher (4.13%) than the current rate:

Table 9 - Sensitivity of the Net OPEB Liability

(Dollar amounts in thousands)

	1% Decrease	Current Discount Rate	1% Increase
	2.13%	3.13%	4.13%
Net OPEB liability	$ 2,315,996	$ 2,037,412	$ 1,805,991

Healthcare Cost Trend Rates

Healthcare cost trends were applied to retirees with less than $1,200 in Premium Assistance per year. Premium Assistance is capped at a maximum of $1,200 per year. At June 30, 2016, there were 91,797 members receiving the maximum amount allowed of $1,200 in Premium Assistance per year and their Premium Assistance benefits are not subject to future healthcare cost increases. At June 30, 2016, there were 1,354 members receiving less than the maximum amount allowed of $1,200 per year. The actual number of retirees receiving less than the $1,200 per year cap is a small percentage of the total population and has a minimal impact from Healthcare Cost Trends, as depicted in Table 10.

Table 10 - Sensitivity of the Net OPEB Liability to Change in Healthcare Cost Trend Rates

(Dollar amounts in thousands)

	1% Decrease	Current Trend Rate	1% Increase
Net OPEB liability	$ 2,036,880	$ 2,037,412	$ 2,037,839

8. Pension Plan for Employees of the System

(A) SERS' Plan Description

The System contributes to SERS, a cost-sharing multiple-employer defined benefit pension plan established by the Commonwealth to provide pension benefits for employees of state government and certain independent agencies. SERS is a component unit of the Commonwealth and is included in the Commonwealth's financial report as a pension trust fund.

Membership in SERS is mandatory for most state employees. SERS provides retirement, death, and disability benefits. Article II of the Commonwealth's Constitution assigns the authority to establish and amend the benefit provision of the plan to the General Assembly.

(B) SERS' Benefits Provided to Employees of the System

SERS member retirement benefits are generally determined by taking years of credited service times final average salary times 2% or 2.5%, depending on date of hire. The normal retirement age ranges from 50 - 65, depending on the membership class.

According to the State Employees' Retirement Code (SERC), all obligations of SERS will be assumed by the Commonwealth should SERS terminate.

(C) Contributions to SERS

The contribution requirements of SERS plan members is mandated by Commonwealth statute. The member contribution rate for the majority of SERS' members is 6.25%. At December 31, 2016 and 2015 the blended employer contribution rates were 26.71% and 22.77%, respectively. Contributions to SERS from PSERS were $5.9 million for the year ended June 30, 2017.

(D) Proportionate Share of Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources from SERS

At June 30, 2017, PSERS reported a liability of $64.1 million and $55.9 million at June 30, 2016, for its proportionate share of the net pension liability for the SERS plan in Other liabilities on the Statement of Fiduciary Net Position. The net pension liability was measured at December 31, 2016, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation at December 31, 2016. PSERS' proportion of the net pension liability was calculated utilizing a projected-contribution method. At December 31, 2016, PSERS' proportion was 0.33288975 percent. Deferred outflows of resources of $16.7 million and $11.3 million for FY 2017 and FY 2016, respectively, are reported in Miscellaneous assets. Deferred inflows of resources of $2.4 million and $1.3 million for FY 2017 and FY 2016, respectively, are reported in Other liabilities on the Statement of Fiduciary Net Position.

(E) SERS' Pension Plan Fiduciary Net Position

Detailed information about SERS' fiduciary net position is available in SERS' Comprehensive Annual Financial Report which can be found on SERS' website at www.SERS.pa.gov.

9. Postemployment Healthcare Plan for Employees of the System

The System participates in the Commonwealth's Retired Employees Health Program (REHP). The REHP is a single-employer plan and provides certain healthcare benefits to qualifying individuals meeting specified age and/or service requirements. The Commonwealth's Office of Administration (OA), in its sole discretion, determines available REHP benefits on an ongoing basis. The Pennsylvania Employees Benefit Trust Fund (PEBTF) is a third-party administrator for the REHP under the provisions of an Administration Agreement between OA and PEBTF.

Employer costs for retiree healthcare benefits are charged as a component of payroll expenditures on a 'pay-as-you-go' basis. REHP funding is arranged between OA and the Governor's Budget Office. FY 2017 employer costs were charged at the rate of $362/employee/bi-weekly pay period. Plan members who retired after June 30, 2005 contribute to the plan based on a percentage of their final annual gross base salary at the time of retirement. Plan member contribution rates vary based on their REHP enrollment date.

In August 2017, the Commonwealth released an Actuarial Valuation of its Post-Retirement Medical Plan with calculations made as of January 1, 2017. This valuation provided Other Postemployment Benefits (OPEB) reporting that was used for FY 2017. For FY 2016 and FY 2017, the System's allocated Annual OPEB Cost (AOC) was $5.3 million and $5.2 million respectively. Based on the aggregate REHP qualifying contributions for FY 2016 and FY 2017, the net OPEB liability for the System was $1.6 million and $2.1 million, respectively.

The AOCs and OPEB for fiscal years 2017, 2016, and 2015 are illustrated in the following table:

(Dollar Amounts in Thousands)

Fiscal Year	Commonwealth AOC	PSERS' AOC	PSERS' Net OPEB
2017	$ 1,107,290	$ 5,211	$ 2,135
2016	1,169,885	5,307	1,607
2015	1,136,817	5,157	1,547

10. Litigation and Contingencies

The System is subject to various threatened and pending lawsuits. These lawsuits include issues related to benefit calculations and eligibility. It is the opinion of management that the ultimate liability arising from such threatened and pending litigation will not have a material effect on the financial position of the System. The System is exposed to various other liabilities and risks related to fiduciary responsibilities of directors and officers.

11. Commitments

At June 30, 2017, PSERS had commitments for the future purchase of investments in alternative investments of $6.1 billion and real estate of $2.1 billion.

12. Subsequent Events

The System has performed an evaluation of subsequent events through September 25, 2017, the date the basic financial statements were available to be issued. No material events were identified by the System.

Required Supplementary Information

Schedule 1
Schedule of Changes in the Employer Net Pension Liability
(Unaudited – See Accompanying Auditor's Report)
(Dollar Amounts in Thousands)

	2017	2016	2015	2014
Total pension liability				
Service cost	**$ 1,873,844**	$ 1,932,401	$ 1,926,539	$ 2,139,037
Interest	**7,110,987**	7,028,292	6,857,497	6,523,484
Changes of benefit terms	**(449)**	-	-	-
Differences between expected and actual experience	**644,051**	(348,429)	(223,437)	-
Changes of assumptions	**-**	2,236,118	-	-
Benefit payments	**(6,473,579)**	(6,360,325)	(6,220,601)	(6,053,505)
Net change in total pension liability	**3,154,854**	4,488,057	2,339,998	2,609,016
Total pension liability - beginning	**99,388,887**	94,900,830	92,560,832	89,951,816
Total pension liability - ending (a)	**$ 102,543,741**	$ 99,388,887	$ 94,900,830	$ 92,560,832
Plan fiduciary net position				
Contributions - employer	**$ 3,832,773**	$ 3,189,510	$ 2,596,731	$ 1,992,084
Contributions - member	**1,013,847**	989,266	984,634	966,926
Net investment income	**4,995,362**	473,206	1,328,516	7,097,761
Benefit payments	**(6,473,579)**	(6,360,325)	(6,220,601)	(6,053,505)
Administrative expense	**(45,127)**	(45,118)	(42,331)	(38,712)
Other	**-**	-	-	-
Net Change in plan fiduciary net position	**3,323,276**	(1,753,461)	(1,353,051)	3,964,554
Plan fiduciary net position - beginning	**49,832,060**	51,585,521	52,938,572	49,015,561
Plan fiduciary net position - ending (b)	**$ 53,155,336**	$ 49,832,060	$ 51,585,521	$ 52,980,115
Employer net pension liability - ending (a)-(b)	**$ 49,388,405**	$ 49,556,827	$ 43,315,309	$ 39,580,717

See accompanying independent auditor's report and notes to the required supplementary information.

Required Supplementary Information

Schedule 2
Schedule of Employer Net Pension Liability
(Unaudited – See Accompanying Auditor's Report)
(Dollar Amounts in Thousands)

	2017	2016	2015	2014
Total pension liability	**$ 102,543,741**	$ 99,388,887	$ 94,900,830	$ 92,560,832
Less: Plan fiduciary net position	**53,155,336**	49,832,060	51,585,521	52,980,115
Employer net pension liability	**$ 49,388,405**	$ 49,556,827	$ 43,315,309	$ 39,580,717
Plan fiduciary net position as a percentage of the total pension liability	**51.84%**	50.14%	54.36%	57.24%
Covered payroll	**$ 13,313,900**	$ 12,951,077	$ 12,866,473	$ 12,760,785
Employer net pension liability as a percentage of covered payroll	**370.95%**	382.65%	336.65%	310.17%

Schedule 3
Schedule of Employer Pension Contributions
(Unaudited – See Accompanying Auditor's Report)
(Dollar Amounts in Thousands)

	Pension			
	2017	2016	2015	2014
Actuarially determined contribution	**$ 3,824,908**	$ 3,540,304	$ 3,289,615	$ 2,965,715
Contributions in relation to the actuarially determined contribution[(1)] [(2)]	**3,824,908**	3,181,438	2,582,114	1,992,084
Contribution deficiency	$ -	$ 358,866	$ 707,501	$ 973,631
Covered payroll	**$ 13,313,900**	$ 12,951,077	$ 12,866,473	$ 12,760,785
Contributions as a percentage of covered payroll	**28.73%**	24.57%	20.07%	15.61%

[(1)] Amounts for 2015-2017 exclude purchase of service contributions.

[(2)] Same as contractually required contributions.

See accompanying independent auditor's report and notes to the required supplementary information.

Required Supplementary Information

Schedule 4
Schedule of Changes in the Employer Net OPEB Liability
(Unaudited – See Accompanying Auditor's Report)
(Dollar Amounts in Thousands)

	2017
Total OPEB liability	
Service cost	$ 42,038
Interest	61,404
Differences between expected and actual experience	-
Changes of assumptions	(110,610)
Benefit payments	(110,229)
Net change in total OPEB liability	(117,397)
Total OPEB liability - beginning	2,278,552
Total OPEB liability - ending (a)	$ 2,161,155
Plan fiduciary net position	
Contributions - employer	$ 110,985
Net investment income	663
Benefit payments	(110,229)
Administrative expense	(2,239)
Net Change in plan fiduciary net position	(820)
Plan fiduciary net position - beginning	124,563
Plan fiduciary net position - ending (b)	$ 123,743
Employer net OPEB liability - ending (a) - (b)	$ 2,037,412

See accompanying independent auditor's report and notes to the required supplementary information.

Required Supplementary Information

Schedule 5
Schedule of Employer Net OPEB Liability
(Unaudited – See Accompanying Auditor's Report)
(Dollar Amounts in Thousands)

	2017	2016
Total OPEB liability	**$ 2,161,155**	$ 2,278,552
Less: Plan fiduciary net position	**123,743**	124,563
Employer net OPEB liability	**$ 2,037,412**	$ 2,153,989
Plan fiduciary net position as a percentage of the total OPEB liability	**5.73%**	5.47%
Covered payroll	**$ 13,313,900**	$ 12,951,077
Employer net OPEB liability as a percentage of covered payroll	**15.30%**	16.63%

Schedule 6
Schedule of Employer Premium Assistance Contributions
(Unaudited – See Accompanying Auditor's Report)
(Dollar Amounts in Thousands)

OPEB

	2017	2016
Actuarially determined contribution	**$ 125,694**	$ 129,494
Contributions in relation to the actuarially determined contribution(1) (2)	**110,558**	112,557
Contribution deficiency	**$ 15,136**	$ 16,937
Covered payroll	**$ 13,313,900**	$ 12,951,077
Contributions as a percentage of covered payroll	**0.83%**	0.87%

(1) Amounts for 2017 and 2016 exclude purchase of service contributions.

(2) Same as contractually required contributions.

See accompanying independent auditor's report and notes to the required supplementary information.

Required Supplementary Information

Schedule 7
Schedule of Investment Returns - Pension and OPEB
(Unaudited – See Accompanying Auditor's Report)

	2017	2016	2015	2014
Annual money-weighted rate of return, net of investment expense- Pension	**10.15%**	1.11%	3.08%	14.98%
Annual money-weighted rate of return, net of investment expense- OPEB	**0.90%**	0.65%	0.30%	-

See accompanying independent auditor's report and notes to the required supplementary information.

Notes to Required Supplementary Information
for the Years Ended June 30, 2014 thru June 30, 2017

Pension

Changes in benefit terms
With the passage of Act 5 class T-E & T-F members are now permitted to elect a lump sum payment of member contributions upon retirement.

Changes in assumptions used in measurement of the Total Pension Liability beginning June 30, 2017

None

Changes in assumptions used in measurement of the Total Pension Liability beginning June 30, 2016

The Investment Rate of Return was adjusted from 7.50% to 7.25%. The inflation assumption was decreased from 3.00% to 2.75%.

Salary growth changed from an effective average of 5.50%, which was comprised of inflation of 3.00%, real wage growth and for merit or seniority increases of 2.50%, to an effective average of 5.00%, comprised of inflation of 2.75% and 2.25% for real wage growth and for merit or seniority increases.

Mortality rates were modified from the RP-2000 Combined Healthy Annuitant Tables (male and female) with age set back 3 years for both males and females to the RP-2014 Mortality Tables for Males and Females, adjusted to reflect PSERS' experience and projected using a modified version of the MP-2015 Mortality Improvement Scale. For disabled annuitants the RP-2000 Combined Disabled Tables (male and female) with age set back 7 years for males and 3 years for females to the RP-2014 Mortality Tables for Males and Females, adjusted to reflect PSERS' experience and projected using a modified version of the MP-2015 Mortality Improvement Scale.

Method and assumptions used in calculations of actuarially determined contributions

The actuarially determined contributions are calculated as of the June 30 preceding the fiscal year in which contributions are made. That is, the contribution calculated as of the June 30, 2016 actuarial valuation will be made during the fiscal year ended June 30, 2018. The following actuarial methods and assumptions were used to determine contribution rates reported in that schedule:

- Investment return - 7.25%, includes inflation at 2.75% and the real rate of return 4.50%.
- Salary growth - Effective average of 5.00%, which reflects an allowance for inflation of 2.75%, real wage growth and merit or seniority of 2.25%.
- Benefit payments - no postretirement benefit increases assumed in the future.
- Mortality rates were based on the RP-2014 Mortality Tables for Males and Females, adjusted to reflect PSERS' experience and projected using a modified version of the MP-2015 Mortality Improvement Scale.

10-year reporting requirements

Required Supplementary Schedules 1-3 and 7, as related to pensions, are intended to show information for 10 years. Additional years will be displayed as they become available.

The Accounting Valuation
The GASB 67 accounting valuation can be found on PSERS' website at www.psers.pa.gov.

Notes to Required Supplementary Information
for the Years Ended June 30, 2014 thru June 30, 2017

OPEB

Changes in benefit terms
None

Changes in assumptions used in measurement of the Total OPEB Liability beginning June 30, 2017

The Discount Rate increased from 2.71% to 3.13%.

Changes in assumptions used in measurement of the Total OPEB Liability beginning June 30, 2016

Salary growth changed from an effective average of 5.50%, which was comprised of inflation of 3.00%, real wage growth and for merit or seniority increases of 2.50%, to an effective average of 5.00%, comprised of inflation of 2.75% and 2.25% for real wage growth and for merit or seniority increases.

Mortality rates were modified from the RP-2000 Combined Healthy Annuitant Tables (male and female) with age set back 3 years for both males and females to the RP-2014 Mortality Tables for Males and Females, adjusted to reflect PSERS' experience and projected using a modified version of the MP-2015 Mortality Improvement Scale. For disabled annuitants the RP-2000 Combined Disabled Tables (male and female) with age set back 7 years for males and 3 years for females to the RP-2014 Mortality Tables for Males and Females, adjusted to reflect PSERS' experience and projected using a modified version of the MP-2015 Mortality Improvement Scale.

Method and assumptions used in calculations of actuarially determined contributions

The actuarially determined contributions are calculated as of the June 30 preceding the fiscal year in which contributions are made. That is, the contribution calculated as of the June 30, 2016 actuarial valuation will be made during the fiscal year ended June 30, 2018. The following actuarial methods and assumptions were used to determine contribution rates reported in that schedule:

- Investment return - 3.13% - 20 year S&P Municipal Bond Rate.
- Salary growth - Effective average of 5.00%, which reflects an allowance for inflation of 2.75%, real wage growth and merit or seniority of 2.25%.
- Benefit payments - no postretirement benefit increases assumed in the future.
- Mortality rates were based on the RP-2014 Mortality Tables for Males and Females, adjusted to reflect PSERS' experience and projected using a modified version of the MP-2015 Mortality Improvement Scale.
- Assumed Healthcare cost trends were applied to retirees with less than $1,200 in premium assistance per year.

10-year reporting requirements
Required Supplementary Schedules 4-7, as related to OPEB, are intended to show information for 10 years. Additional years will be displayed as they become available.

The Accounting Valuation
The GASB 74 accounting valuation can be found on PSERS' website at www.psers.pa.gov.

Supplementary Schedule 1
Schedule of Administrative and Investment Expenses
Year Ended June 30, 2017
(Dollar Amounts in Thousands)

	Administrative Expenses			
	Pension	**Post-employment Healthcare (1)**	**Investment Expenses (2)**	**Total**
Personnel costs:				
Salaries and wages	$ 15,202	$ 1,355	$ 5,509	**$ 22,066**
Employee benefits	10,075	745	2,946	**13,766**
Total personnel costs	25,277	2,100	8,455	**35,832**
Operating costs:				
Investment managers' fees	-	-	454,744	**454,744**
Custodian fees	-	-	2,476	**2,476**
Specialized services	779	36,223	812	**37,814**
Rental of real estate, electricity	2,087	186	210	**2,483**
Consultant and legal fees	2,922	605	4,484	**8,011**
Treasury and other Commonwealth services	1,646	-	192	**1,838**
Postage	1,192	-	-	**1,192**
Contracted maintenance and repair services	1,809	-	18	**1,827**
Office supplies	115	-	4	**119**
Rental of equipment and software	3,683	-	219	**3,902**
Printing	154	-	-	**154**
Travel and training	216	4	29	**249**
Telecommunications	402	-	23	**425**
Equipment (non-capital assets)	365	-	-	**365**
Miscellaneous expenses	50	-	1,630	**1,680**
Total operating costs	15,420	37,018	464,841	**517,279**
Other charges:				
Depreciation	1,820	-	-	**1,820**
Total Administrative and Investment Expenses Before Pension Expense	42,517	39,118	473,296	**554,931**
Pension expense (3)	2,610	192	1,195	**3,997**
Total Administrative and Investment Expenses	$ 45,127	$ 39,310	$ 474,491	**$ 558,928**

(1) Administrative expenses for Postemployment Healthcare includes $2,239 related to Premium Assistance and $37,071 related to Healthcare Health Options Program for the fiscal year ended June 30, 2017.

(2) Includes investment expenses of $24 related to Postemployment Healthcare Premium Assistance and $26 related to Health Options Program for the fiscal year ended June 30, 2017 and does not include $3,961 in capitalized broker commissions for the fiscal year ended June 30, 2017.

(3) Total GASB 68 pension expense is $9.9 million and is reflected under Employee benefits and Pension expense. Employer contributions of $5.9 million are included as Employee benefits under Personnel costs and $4.0 million is reflected as Pension expense.

Supplementary Schedule 2
Summary of Investment Expenses*
Year Ended June 30, 2017
(Dollar Amounts in Thousands)

	Investment Management			
	Base	**Performance**	**Other Expenses**	**Total**
External management:				
Domestic equity	$ 1,494	$ 1,490	$ -	**$ 2,984**
International equity	19,771	5,392	-	**25,163**
Fixed income	87,464	21,061	-	**108,525**
Real estate	50,609	-	-	**50,609**
Alternative investments	102,714	-	-	**102,714**
Absolute return	78,202	50,784	-	**128,986**
Commodities	4,132	-	-	**4,132**
Master limited partnership	8,295	238	-	**8,533**
Risk parity	19,632	3,466	-	**23,098**
Total external management	372,313	82,431		**454,744**
Total internal management	-	-	12,787	**12,787**
Total investment management	372,313	82,431	12,787	**467,531**
Custodian fees	-	-	2,476	**2,476**
Consultant and legal fees	-	-	4,484	**4,484**
Total investment expenses	$ 372,313	$ 82,431	$ 19,747	**$ 474,491**

* External investment management fees classified on an asset allocation basis.

Supplementary Schedule 3
Schedule of Payments to Non-Investment Consultants
Year Ended June 30, 2017
(Dollar Amounts Greater than $100,000)

Consultant	Fees	Services Provided
Coresource, Inc.	$ 26,093,049	Postemployment healthcare benefits administration and claims adjudication
Optum, RX, Inc.	6,741,479	Administration of postemployment healthcare benefits and prescription drug plan
ViTech Systems Group, Inc.	5,500,000	Pension administration system services
The Segal Company	3,649,567	Actuarial services and consulting for HOP and prescription drug plan
Unisys Corporation	1,360,638	Server maintenance
Healthways, Inc.	763,843	Administration of the Silver Sneakers Fitness Program
Conduent HR Services	629,815	Pension benefit actuarial services
Independent Pharmaceutical Consultants, Inc.	565,944	Pharmacy benefit consulting services
OST, Inc.	520,367	Webmaster consulting