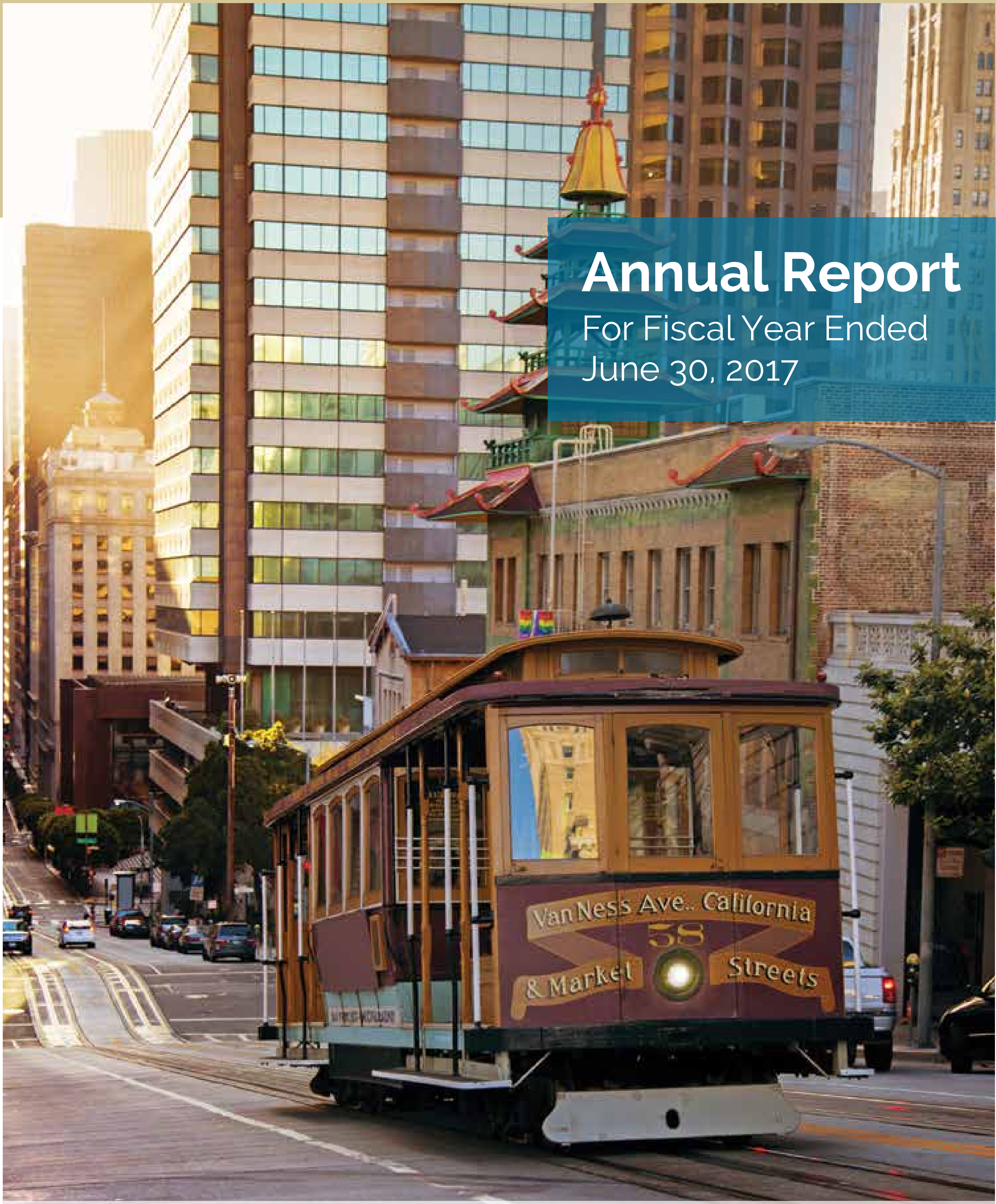
Annual Report
For Fiscal Year Ended
June 30, 2017



SFERS
San Francisco Employees' Retirement System

Table of Contents

Introductory Section

LETTER OF TRANSMITTAL

March 14, 2018

San Francisco Employees' Retirement System
1145 Market Street, 5th Floor
San Francisco, CA 94103

On behalf of the Retirement Board and Retirement System staff, we are pleased to present the San Francisco Employees' Retirement System Annual Report for Fiscal Year 2016-17.

ABOUT SFERS

The Retirement System

Initially established by approval of City voters on November 2, 1920 and the California State Legislature on January 12, 1921, the San Francisco Employees' Retirement System ("Retirement System" or "SFERS") is deeply rooted in the history and culture of the City and County of San Francisco and is committed to serving the retirement needs of its members. Originally established as a fund to assist families and orphans of firefighters and police, today the Retirement System serves more than 70,900 active, vested and retired employees of the City and County of San Francisco and their survivors.

Under the direction of the Executive Director, the System's management team administers two employee benefit programs for eligible City and County employees:

- City and County of San Francisco Employees' Retirement System pension plan, a defined benefit plan.
- San Francisco Deferred Compensation Plan, an IRC §457(b) deferred compensation plan.

Specific San Francisco City Charter sections and/or Administrative Code provisions mandate each of these benefit plans.

Our Mission

The San Francisco City and County Employees' Retirement System is dedicated to securing, protecting and prudently investing the pension trust assets, administering mandated benefit programs, and providing promised benefits to the active and retired members of the City and County of San Francisco.

The Pension Plan

The SFERS Pension Plan is a tax-qualified defined benefit plan that provides for the following benefits upon separation: service and disability retirement, refund or vesting allowance, and pre and post-retirement death benefits to beneficiaries. Defined benefit plans are funded through employee and employer contributions and investment earnings. SFERS has a reciprocity agreement with CalPERS, California county retirement systems covered by the County Employees Retirement Law of 1937, and certain other local, independent retirement systems that have a reciprocity contract with CalPERS (listed on the CalPERS website).

As of June 30, 2017, the Fund was valued at $22.4 billion returning 13.81% for the fiscal year. Over the same time period, the median return for public pension plans with assets of $1 billion or more was 12.66%. SFERS outperformed our peers by 1.15%.

Annual benefit payments totaled $1.265 billion paid to over 29,100 retirees and their beneficiaries.

The San Francisco 457(b) Deferred Compensation Plan

The San Francisco Deferred Compensation Plan (SFDCP), a voluntary IRC §457(b) plan, was adopted in 1976, and allows eligible City employees to elect to voluntarily defer receipt and taxation of a portion of their regular earnings until after they retire or separate from service. The SFDCP also offers a Roth after-tax contribution option. These options offer eligible employees an opportunity to supplement pension income during retirement.

In Fiscal Year 2016-17, the SFDCP introduced a number of educational seminars for current and prospective participants, demonstrating tools and strategies that support saving for retirement.

Our Members

In Fiscal Year 2016-17, SFERS enrolled 4,457 new members and added 1,201 new retirees. SFERS members include eligible employees of the City and County of San Francisco, the San Francisco Unified School District, the San Francisco Community College District, and the San Francisco Trial Courts. Uniformed employees working for the City's Police and Fire Departments are covered by the SFERS Safety Plans. Eligible civilian (non-Safety) employees of the City are covered by the SFERS Miscellaneous Plan.

Sheriff, Undersheriff, and deputized personnel of the Sheriff's Department hired after January 7, 2012 are covered by the SFERS Sheriff's Plan. Probation Officers, District Attorney Investigators and Juvenile Court Counselors hired after January 7, 2012 are covered by the SFERS Miscellaneous Safety Plan.

SFERS Administration

The Executive Director leads a team of senior managers who oversee each of the functional areas in the department. The leadership team manages the day-to-day activities of the System including:

- Member services, communication and benefits administration
- Retirement Board administration, including preparation of meeting materials, minutes and public notice requirements for Board and committee meetings
- Responding to Public Records Requests in accordance with the City's Sunshine Act, State of California Public Records Act, and Federal Freedom of Information Act
- Accounting and financial reporting
- Actuarial services
- Investment activities
- Recruitment and personnel management
- Records management and systems administration

The Retirement Board

The Retirement System and its members benefit greatly from the leadership of an experienced and knowledgeable Retirement Board. Within the scope of its fiduciary duties, the Board establishes and follows policies governing the administration, management, and operation of the City's retirement plans; manages the investment of the Retirement System's assets; approves disability benefit determinations; and approves actuarial assumptions used to fund long-term benefit promises of the SFERS Pension Plan.

The Retirement Board generally meets once each month to review and to approve important elements of Retirement System business. The Retirement Board is composed of seven members: three members elected by the active and retired members of SFERS; three members appointed by the Mayor in accordance with §12.100, the San Francisco City Charter; and one member of the Board of Supervisors appointed by the President of the Board of Supervisors.

FINANCE AND FUNDING

Financial Reporting

The accounting policies followed in preparing the SFERS financial statements by the City's auditors Marcias, Gini & O'Connell, LLP, conform to standards prescribed by the Governmental Accounting Standards Board (GASB). The audited Statements of Fiduciary Net Position and Statements of Changes in Fiduciary Net Position provide a general overview of the City and County of San Francisco Employees' Retirement System's finances for the fiscal year ended June 30, 2017.

Financial highlights and analysis can be found in the SFERS Discussion and Analysis preceding the financial statements. This transmittal letter, when taken into consideration with the Financial Section of this report, provides an enhanced picture of the activities of the organization.

Readers who have questions regarding the financial information provided in this report are encouraged to visit the SFERS website at www.mysfers.org to view the full set of audited Financial Statements and Required Supplemental Information as prepared by the City's independent auditors, Macias Gini & O'Connell, LLP.

Actuarial Services and Funding

The Retirement Board contracts with a consulting actuarial firm to produce and report to the Retirement Board and Retirement System staff, actuarial information related to the benefit structure and funding status of the Retirement System. The Retirement Board's current consulting actuarial firm is Cheiron. The Retirement Board also employs an Actuarial Services Coordinator to coordinate the work of the consulting actuary, participate in the presentation of actuarial reports to the Retirement Board, and provide other in-house actuarial services.

The consulting actuarial firm conducts annual actuarial valuations of the Retirement System's assets and liabilities in order to assess its funded status and to determine the appropriate level of employer contributions to the Fund. Each year, the Retirement Board looks to the consulting actuary and staff Actuarial Services Coordinator to recommend appropriate actuarial assumptions to provide the required funding for the promised benefits. The recommendations are based on results from economic experience analyses conducted each year, as well as demographic experience analyses conducted approximately every five years. The actuarial assumptions are included in the Actuarial Section of this report.

Sponsoring employers of the Retirement System are required to contribute 100% of the actuarially determined contribution approved by the Retirement Board. A 10-year chart of employer contributions may be found in the Required Supplementary Information found in the Financial Section.

The consulting actuarial firm also calculates the total pension liability and net pension liability as required by GASB Statement No. 67. At the June 30, 2017 fiscal year-end measurement date, the fiduciary net position as a percentage of total pension liability is 81.8% based on total pension liability of $27.4 billion and fiduciary net position of $22.4 billion. The net pension liability at June 30, 2017 is $5.0 billion. Details may be found in Note 10 of the Notes to the Basic Financial Statements and also in the Required Supplementary Information.

INVESTMENTS

The Retirement System's investment objective is to maximize long-term rates of return on investments within prudent guidelines.

The professional Investment Staff, supported by a group of professional consulting firms hired by the Retirement Board, analyzes, develops and recommends asset allocation mixes, manages investment portfolios, and monitors the activities and performance of external investment managers. For Fiscal Year 2017, the investment portfolio returned 13.81%.

Under the authorization of the Retirement Board and in line with the 2017 Annual Investment Plan, the investment team committed a total of $3.2 billion in new investments: $855 million in Private Equity, $680 million in the Real Assets portfolio, $1.1 billion in Absolute Return, $200 million in Public Equity, and $367 million in fixed income.

Over the past two years we have made important changes to our investment strategy, for both asset allocation and each asset class. Regarding asset allocation, we have reduced our exposure to long-only public equity and fixed income, increased our allocation to private equity and real assets, and adopted an allocation to absolute return.

Regarding the asset classes, in fixed income, we reduced our exposure to credit and increased our exposure to high quality debt and private debt. In private equity, we have reduced our exposure to large cap buyout and increased our allocation to country, regional, and sector specialists. In real assets, we broadened our exposure from a real estate focus to include natural resources.

ACKNOWLEDGEMENTS

We would like to express our personal appreciation to the Retirement Board members who, without compensation, have provided the leadership, direction and support that have made all of our achievements possible. SFERS members and the citizens of the City and County have been well-served by their leadership.

Finally, we would like to thank the SFERS staff for their hard work to support our mission.

Respectfully submitted,

Jay Huish
Executive Director

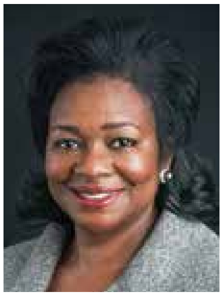
Malia Cohen
President

The SFERS Retirement Board

THE RETIREMENT SYSTEM ORGANIZATION FOR FISCAL YEAR 2017

President
Malia Cohen
Member, Board of Supervisors
Ex-Officio Member
Term Expires: 01/20/2018

Vice President
Brian Stansbury
Officer
San Francisco Police Department
Elected Member
Term Expires: 02/20/2020



Leona Bridges
Former Managing Director
Barclays Global Investors
Appointed Member
Term Expires: 02/20/2018

Victor Makras
President
Makras Real Estate
Appointed Member
Term Expires: 02/20/2019

Croce Alexander ("Al") Casciato
Retiree
Elected Member
Term Expires: 02/20/2022

Wendy Paskin-Jordan
Chief Executive Officer
Paskin Capital Advisers, LLC
Appointed Member
Term Expires: 02/20/2019

Joseph D. Driscoll, CFA
Captain, Fire Department
Elected Member
Term Expires: 02/20/2021

SFERS Leadership Team

Jay Huish
Executive Director

Caryn Bortnick
Deputy Executive Director

William J. Coaker, Jr., CFA
Chief Investment Officer

Janet Brazelton, FSA, EA
Actuarial Services Coordinator

Ellen Brownell
Managing Director, Asset Allocation,
Risk Management and Innovative Solutions

Jim Burruel
Finance Manager

Diane Chui Justen
Deferred Compensation Manager

Chris Colandene
Retirement Services Administrator

David Francl
Managing Director, Absolute Return

Alison Johnson
Communications Manager

Craig Lee
Information Systems Director

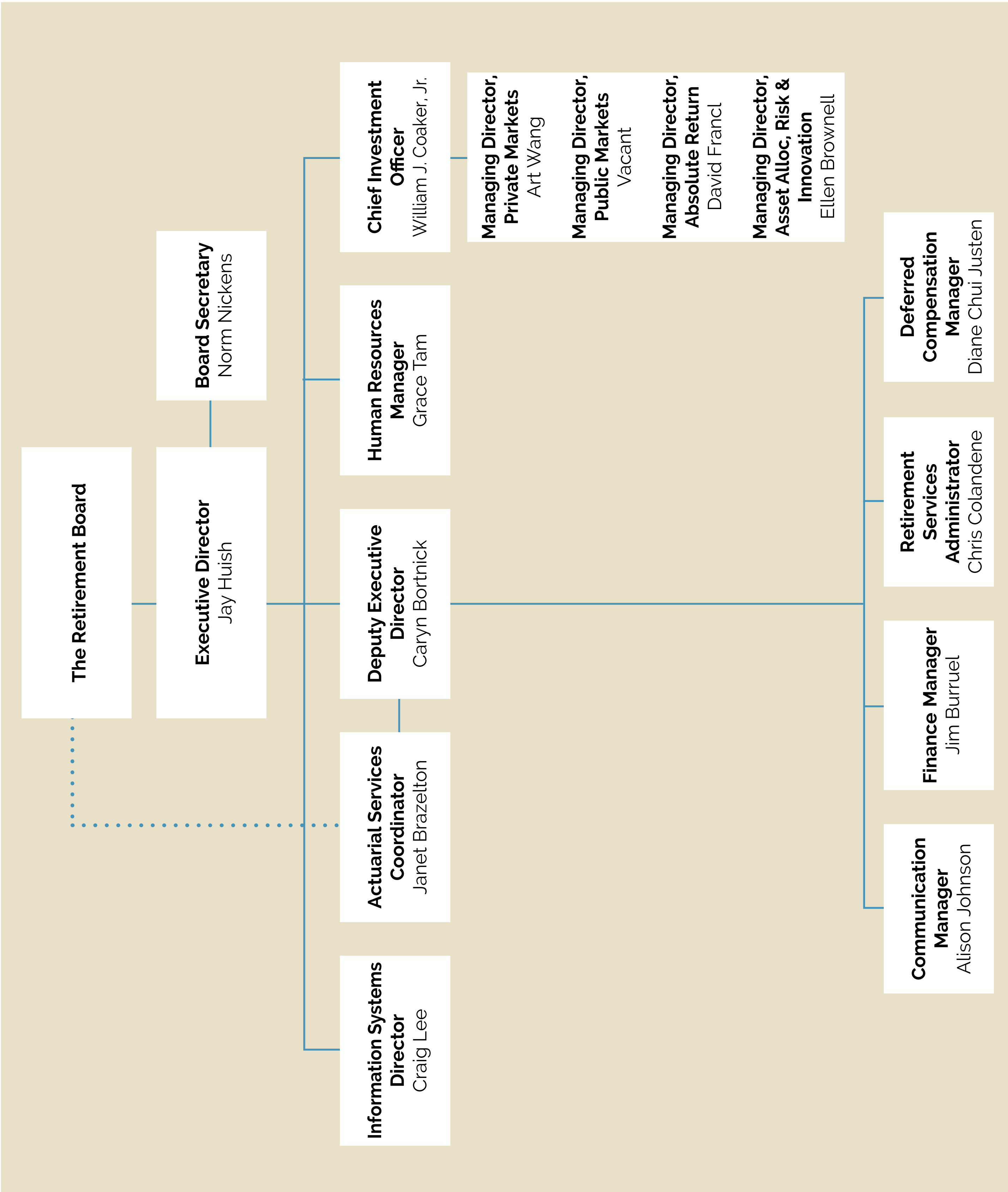
Norm Nickens
Board Secretary

Grace Tam
Human Resources Manager

Art Wang
Managing Director, Private Markets

Vacant
Managing Director, Public Markets

SFERS ORGANIZATIONAL CHART - JUNE 30, 2017



Professional Consultants

Consulting Actuary

- Cheiron, Inc.

Investment Consultants

- NEPC, LLC
- Callan Associates, Inc.
- Cambridge Associates, LLC
- Torrey Cove Capital Partners, LLC

Governance Consultants

- Institutional Shareholder Services, Inc.
- Nossaman, LLP

Financial Section

SFERS DISCUSSION AND ANALYSIS

The management of the City and County of San Francisco Employees' Retirement System is pleased to provide this overview and analysis of the financial activities of its cost-sharing multiple-employer defined benefit pension plan (the "Plan") for the fiscal year ended June 30, 2017. We encourage readers to consider the information presented here in conjunction with the Basic Financial Statements and Required Supplementary Information which follow this discussion.

Financial Highlights of Fiscal Year 2017

- The Plan held $22.4 billion of net position restricted for pension benefits at the close of the year ended June 30, 2017. All of the net position is available to meet the Retirement System's ongoing obligations to plan participants and their beneficiaries.
- The Retirement System's funding objective is to meet long term benefit obligations through contributions and investment income. The Retirement System's fiduciary net position as a percentage of the total pension liability should be considered when evaluating the Retirement System's financial health. Based on the June 30, 2017 measurement date, the fiduciary net position was 81.8% of the total pension liability.
- For the year ended June 30, 2017, the Retirement System's net investment income of $2.7 billion represents 13.3% of fiduciary net position as of the beginning of the fiscal year. Specifically, net appreciation in fair value of investments totaled $2.4 billion as a result of strong returns in all asset classes.
- Total net position held in trust for pension benefits increased by $2.3 billion, or 11.2%, primarily as a result of strong investment returns which were slightly reduced by the net difference between contributions received by the Plan and increased benefit payments made from the Plan.
- Members' contributions to the Plan totaled $316.8 million, a decrease of $5.9 million or 1.8% from the prior year. This decrease is primarily a result of lower employee contribution rates in fiscal year 2016-17 offset by increases in the number of active employees contributing to the Plan. Employee contribution rates in fiscal year 2016-17 ranged from 7.5% - 12.0%, while employee contribution rates from fiscal year 2015-16 ranged from 7.5% - 13.0%.
- In order to maintain the fiscal soundness of the Plan, required employer contributions to the Plan totaled $551.8 million, an increase of $25.0 million or 4.7% from the prior year.
- Total deductions from the Plan were $1,296.3 million, an increase of 1.8% from the prior year due to the increase in benefits paid during the current fiscal year.

Overview of Financial Statements

The following discussion and analysis are intended to serve as an introduction to the Retirement System's financial statements, which are comprised of the following components:

1. ***Statements of Fiduciary Net Position*** are snapshots of account balances as of the close of the fiscal years – June 30, 2017 and 2016. They indicate the total assets, total liabilities, and the net position restricted for future payment of retirement benefits and operating expenses as of June 30, 2017 and 2016.

2. ***Statements of Changes in Fiduciary Net Position*** provide a view of additions to and deductions from the Plan during the fiscal years ended June 30, 2017 and 2016.

3. ***Notes to Financial Statements*** provide additional information that is essential to a full understanding of the data provided in the financial statements.

The statements of fiduciary net position and the statements of changes in fiduciary net position report information about the Retirement System's financial activities, prepared using the accrual basis of accounting. Contributions to the Plan are recognized when due pursuant to legal requirements and benefits and refunds are recognized when currently due and payable in accordance with the terms of the Plan.

Investments are reported at fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Securities that do not have an established market are reported at estimated fair value derived from third party pricing services. Purchases and sales of investments are recorded on a trade date basis. Private equity investments represent the Retirement System's interest in limited partnerships. The fair values of the Retirement System's partnership interests and real estate investments are based on net asset values provided by the general partners and investment managers.

Investments in forward currency contract investments are commitments to purchase and sell stated amounts of foreign currency. Changes in fair value of open contracts are immediately recognized as gains or losses. The fair value of forward currency contracts are determined by quoted currency prices from national exchanges.

Additional information on the Retirement System's investments can be found in Notes 4 and 5 to the Basic Financial Statements of this report.

Financial Analysis

The Plan's net position may serve over time as a useful indication of the Plan's financial position. The assets of the Plan exceeded its liabilities at June 30, 2017 and 2016. All of the Plan's net position is restricted to meet the Retirement System's ongoing obligation to Plan participants and their beneficiaries.

The Plan's net positions as of June 30, 2017, 2016, and 2015 are represented in the table below:

Net Position Summary – June 30, 2017, 2016, and 2015

(Dollars in thousands)

	2017	2016	2015
Other assets	$ 256,857	$ 164,233	$ 305,801
Investments at fair value	22,319,815	20,980,136	21,540,021
Total assets	$ 22,576,672	$ 21,144,369	$ 21,845,822
Total liabilities	166,322	989,866	1,417,753
Fiduciary Net position	$ 22,410,350	$ 20,154,503	$ 20,428,069

As of June 30, 2017, the Plan's total net position held in trust for pension benefits increased by $2.3 billion or 11.2% for the year, primarily due to strong investment returns as a result of the improvement in financial market conditions. Payables to brokers increased by $39.6 million and payables to borrowers of securities decreased by $863.4 million due to the timing of investment trades and lending activities.

The Retirement Board believes that the Plan remains in a strong financial position to meet its obligations to the Plan members and beneficiaries. For fiscal year 2016-17, although the Fed raised rates three times, both it and international central banks remain quite accommodative, helping support strong equity gains globally. U.S. equities posted their eighth consecutive positive year with a +17.9% return as measured by the S&P 500 Index. International developed-markets equities outperformed domestic equities by 2.4% as European equity returns overcame political uncertainty and reflected signs of economic recovery. Emerging markets equities outperformed both U.S. and developed-international equities by 5.8% and 3.4% respectively. U.S. high quality fixed income investments produced a negative return (-0.3%), measured by the Bloomberg Barclays U.S. Aggregate Bond Index, driven lower by 10 year U.S. Treasury yields spiking in the wake of U.S. elections. High quality global bonds declined -4.1% on a U.S. dollar basis.

As fiduciaries to the Plan members and beneficiaries, the Retirement Board, Retirement System staff, and our investment consultants continuously monitor the Plan's investment strategies, which comply with a "prudent expert" standard, to secure and maintain the sustainability of the Plan.

Highlights of Changes in Net Position – Years ended June 30, 2017, 2016, and 2015

(Dollars in thousands)

	2017	2016	2015
Additions:			
Member contributions	$ 316,844	$ 322,764	$ 301,682
Employer contributions	551,809	526,805	592,643
Interest	159,065	188,292	209,520
Dividends	209,951	219,529	214,636
Net appreciation (depreciation) in fair value of investments	2,356,332	(216,852)	378,519
Securities lending income	9,004	7,562	4,869
Investment expenses	(47,395)	(47,026)	(44,911)
Securities lending borrower rebates and expenses	(3,489)	(1,315)	796
Total additions	$ 3,552,121	$ 999,759	$ 1,657,754
Deductions:			
Benefits	$ 1,264,633	$ 1,243,260	$ 1,118,691
Refunds of contributions	13,507	12,886	12,339
Administrative expenses	16,586	16,079	18,108
Other administrative expenses - OPEB	1,548	1,100	1,154
Total deductions	$ 1,296,274	$ 1,273,325	$ 1,150,292
Change in fiduciary net position	$ 2,255,847	$ (273,566)	$ 507,462
Fiduciary net position - beginning of the year	20,154,503	20,428,069	19,920,607
Fiduciary net position - end of the year	$ 22,410,350	$ 20,154,503	$ 20,428,069

Highlights of Changes during Fiscal Year 2017

- Members' contributions to the Plan totaled $316.8 million for the year ended June 30, 2017, which is a decrease of $5.9 million or 1.8% from the prior year. This decrease is primarily a result of lower employee contribution rates in fiscal year 2016-17 offset by an increase in the number of active employees contributing to the Plan. Employee contribution rates in fiscal year 2016-17 ranged from 7.5% - 12.0%, while employee contribution rates in fiscal year 2015-16 ranged from 7.5% - 13.0%.

- In order to maintain the fiscal soundness of the Plan, $551.8 million in required employer contributions were made during the year ended June 30, 2017. The increase of $25.0 million in required employer contributions reflects the increase in active members and covered payroll offset by a decrease in the employer contribution rates, which ranged from 17.90% to 21.40% in fiscal year 2016-17 and 18.30% to 22.80% in fiscal year 2015-16.

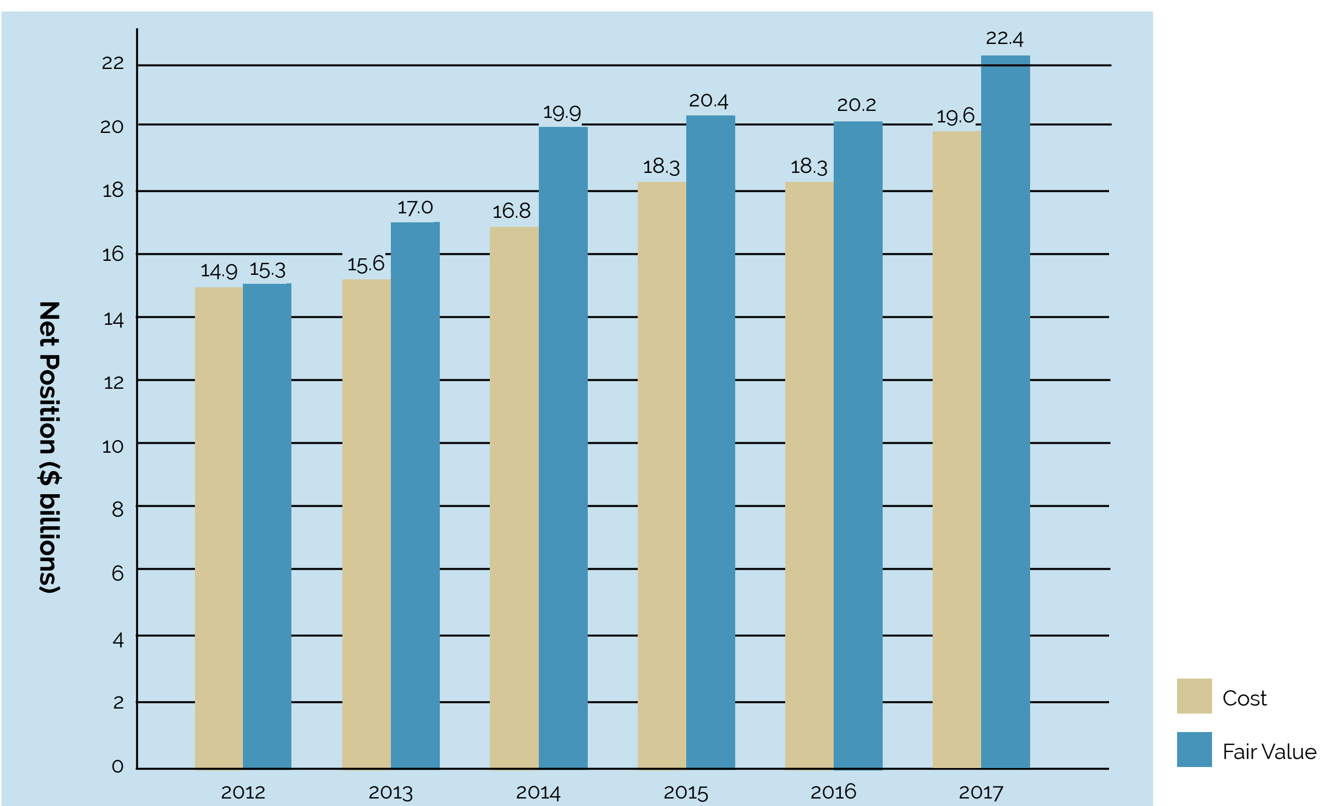
- Net investment income increased by $2.5 billion from the prior year. The majority of the increase is attributed to the $2.6 billion increase in net appreciation in fair value of investments primarily due to strong investment returns in all of the asset classes that the Retirement System invests in. Interest income decreased by $29.2 million, due mainly to the domestic fixed income market.

- Benefit payments to Plan participants increased by $21.4 million or 1.7%, primarily due to new retirements and cost-of-living increases. The increase over fiscal year 2015-16 benefit payments is modest because fiscal year 2015-16 payments included one-time retroactive Supplemental COLAs paid as a result of the Court decision that removed the "fully funded" requirement for certain SFERS retired members.

- Accrued DROP retirement benefits decreased by $300 thousand reflecting the wind down of the program as a result of the program being closed to new participants as of July 1, 2011.

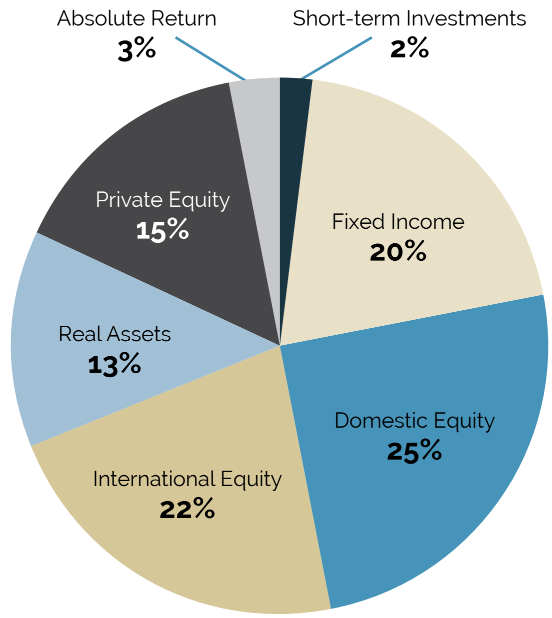
Fiduciary net position as of June 30, 2012 through 2017 expressed at cost and fair value are represented in the chart below:

Plan Net Position as of June 30 ($ billions)



The asset allocation at fair value based on holdings (excluding securities lending collateral and foreign currency contracts) as of June 30, 2017 is represented in the chart below:

Asset Allocation as of June 30, 2017 - Fair Value



Currently Known Facts and Events Affecting Next Year

The Retirement System's funding objective is to meet long-term benefit obligations through contributions and investment income. The Retirement Board believes that the Retirement System remains in a strong financial position to meet its obligations to Plan participants and beneficiaries.

Requests for information

This financial report is designed to provide a general overview of the Retirement System's finances for the year ended June 30, 2017. Questions regarding any of the information provided in this report or requests for additional financial information should be addressed to:

Jay Huish, Executive Director
San Francisco City and County Employees' Retirement System
1145 Market Street – 5th floor
San Francisco, CA 94103

Statements of Fiduciary Net Position

June 30, 2017 and 2016

(Dollars in thousands)

	2017	2016
Assets		
Deposits	$ 65,697	$ 43,521
Contributions Receivable – Members	$ 11,594	$ 10,908
Investment Income Receivable:		
Interest	$ 20,988	$ 21,831
Dividends	$ 12,496	$ 20,643
Securities Lending	$ 287	$ 641
Receivable from Brokers, General Partners, Others	$ 145,795	$ 66,689
Investments at Fair Value:		
Short-Term Investments	$ 347,744	$ 1,009,676
City Investment Pool	11,800	6,656
Debt Securities:		
U. S. Government And Agency Securities	1,555,180	1,648,271
Other Debt Securities	2,891,222	3,068,745
Equity Securities:		
Domestic	5,666,244	4,970,838
International	4,891,772	4,304,025
Real Assets	2,975,974	2,341,500
Private Equity	3,401,547	2,750,619
Absolute Return	577,967	--
Foreign Currency Contracts, Net	164	14,125
Invested Securities Lending Collateral	201	865,681
Total Investments	$ 22,319,815	$ 20,980,136
Total Assets	$ 22,576,672	$ 21,144,369
Liabilities		
Payable to Brokers	$ 147,095	$ 107,444
DROP (Deferred Retirement Option Program)	313	613
Other	18,808	18,273
Payable to Borrowers of Securities	106	863,536
Total Liabilities	$ 166,322	$ 989,866
Fiduciary Net Position – restricted for pension benefits	**$ 22,410,350**	**$ 20,154,503**

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

Statements of Changes in Fiduciary Net Position

Years Ended June 30, 2017 and 2016
(Dollars in thousands)

	2017	2016
Additions:		
Member Contributions:		
Miscellaneous	$ 262,647	$ 266,929
Police	31,085	32,345
Firefighter	23,112	23,490
Total Member Contributions	$ 316,844	$ 322,764
Employer Contributions:		
Miscellaneous	$ 465,671	$ 442,184
Police	49,640	49,164
Firefighter	36,498	35,457
Total Employer Contributions	$ 551,809	$ 526,805
Investment Income (Expenses):		
Interest	$ 159,065	$ 188,292
Dividends	209,951	219,529
Net Appreciation (Depreciation) in Fair Value of Investments	2,356,332	(216,852)
Securities Lending Income	9,004	7,562
Investment Expenses	(47,395)	(47,026)
Securities Lending Borrower Rebates and Expenses	(3,489)	(1,315)
Net Investment Income	$ 2,683,468	$ 150,190
Total Additions	$ 3,552,121	$ 999,759
Deductions:		
Benefits	$ 1,264,633	$ 1,243,260
Refunds of Contributions	13,507	12,886
Administrative Expenses	16,586	16,079
Other Administrative Expenses - OPEB	1,548	1,100
Total Deductions	$ 1,296,274	$ 1,273,325
Net (Decrease)/Increase	**$ 2,255,847**	**$ (273,566)**
Fiduciary Net Position – restricted for pension benefits:		
Beginning of Year	20,154,503	20,428,069
End of Year	$ 22,410,350	$ 20,154,503

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

Notes to the Basic Financial Statements

The Notes below provide a summary of the complete Notes found in SFERS' 2017 audited financial statements dated December 29, 2017.

(1) Plan Description

(a) General

The San Francisco City and County Employees' Retirement System (the Retirement System) administers a cost-sharing multiple employer defined benefit pension plan (the Plan) established to provide pension benefits for substantially all employees of the City and County of San Francisco (the City and County), certain classified and certificated employees of the Community College and Unified School Districts, and San Francisco Trial Court employees other than judges. The Retirement System provides service retirement, disability, and death benefits based on specified percentages of defined final average monthly salary and annual cost of living adjustments after retirement. While the Plan is not subject to the provisions of the Employee Retirement Income Security Act of 1974 (ERISA), it is a tax-qualified plan under Internal Revenue Code provisions. The City and County Charter (the Charter) and the Administrative Code are the authorities that establish and amend the benefit provisions and employer and member obligations to the Plan.

The Retirement System is considered to be a part of the City and County's financial reporting entity and is included in the City and County's basic financial statements as a pension trust fund. The financial statements of the Retirement System are intended to present only the fiduciary net position and changes in fiduciary net position of the Retirement System. They do not purport to, and do not, present fairly the financial position of the City and County as of June 30, 2017 and 2016, and the changes in its financial position for the years then ended in conformity with accounting principles generally accepted in the United States of America. The City and County's basic financial statements can be obtained from City Hall, Room 316, 1 Dr. Carlton B. Goodlett Place, San Francisco, CA 94102.

The Retirement System is administered by the Executive Director, an employee of the City and County, in accordance with the provisions of the Charter and Administrative Code, and the policies and regulations of the Retirement Board. The Retirement Board is composed of seven members: three members elected by the active and retired members of the Retirement System; three members appointed by the Mayor in accordance with Section 12.100 of the San Francisco City Charter; and one member of the Board of Supervisors appointed by the President of the Board of Supervisors.

The Retirement System pays benefits according to the category of employment and the type of benefit coverage provided by the City and County. The four main categories of Plan membership are:

- **Miscellaneous Non-Safety Members** – staff, operational, supervisory, and all other eligible employees who are not in special membership categories.
- **Sheriff's Department and Miscellaneous Safety Members** – sheriffs assuming office on and after January 7, 2012, and undersheriffs, deputized personnel of the sheriff's department, and miscellaneous safety employees hired on and after January 7, 2012.
- **Firefighter Members** – firefighters and other employees whose principal duties are in fire prevention and suppression work or who occupy positions designated by law as firefighter member positions.
- **Police Members** – police officers and other employees whose principal duties are in active law enforcement or who occupy positions designated by law as police member positions.

(b) Service Retirement

Membership Group	Service Retirement Benefit
Miscellaneous Old Plan A8.509 - Miscellaneous employees who became members before November 2, 1976	2.3% @ age 62; maximum benefit 75% of average monthly compensation (12 mo. avg.)
Miscellaneous New Plan Tier I A8.587 - Miscellaneous employees who became members on or after November 2, 1976	2.3% @ age 62; maximum benefit 75% of average monthly compensation (12 mo. avg.)
Miscellaneous New Plan Tier II Plan A8.600 - Miscellaneous employees who became members on or after July 1, 2010 and before January 7, 2012	2.3% @ age 62; maximum benefit 75% of average monthly compensation (24 mo. avg.)
Miscellaneous New Plan Tier III Plan A8.603 - Miscellaneous employees who became members on or after January 7, 2012	2.3% @ age 65; maximum benefit 75% of average monthly compensation (36 mo. avg.)
Police Old Plan A8.595 - Police officers who became members before November 2, 1976 and elected Proposition H benefits effective January 1, 2003	3.0% @ age 55; maximum benefit 90% of average monthly compensation (12 mo. avg.)
Police New Plan Tier I A8.597 - Police officers who became members on or after November 2, 1976 and were eligible for Proposition H benefits effective January 1, 2003	3.0% @ age 55; maximum benefit 90% of average monthly compensation (12 mo. avg.)
Police New Plan Tier II A8.602 - Police officers who became members on or after July 1, 2010 and before January 7, 2012	3.0% @ age 55; maximum benefit 90% of average monthly compensation (24 mo. avg.)
Police New Plan Tier III A8.605 - Police officers who became members on or after January 7, 2012	3.0% @ age 58; maximum benefit 90% of average monthly compensation (36 mo. avg.)
Firefighter Old Plan A8.588 - Firefighters who were members on January 1, 2003, who did not elect Proposition H	2.7% @ age 55; maximum benefit 75% of average monthly compensation (12 mo. avg.)
Firefighter Old Plan A8.596 - Firefighters who became members before November 2, 1976 and elected Proposition H benefits effective January 1, 2003	3.0% @ age 55; maximum benefit 90% of average monthly compensation (12 mo. avg.)
Firefighter New Plan Tier I A8.598 - Firefighters who became members on or after November 2, 1976 and were eligible for 2002 Proposition H benefits effective January 1, 2003	3.0% @ age 55; maximum benefit 90% of average monthly compensation (12 mo. avg.)
Firefighter New Plan Tier II A8.601 - Firefighters who became members on or after July 1, 2010 and before January 7, 2012	3.0% @ age 55; maximum benefit 90% of average monthly compensation (24 mo. avg.)
Firefighter New Plan Tier III A8.604 - Firefighters who became members on or after January 7, 2012	3.0% @ age 58; maximum benefit 90% of average monthly compensation (36 mo. avg.)
Sheriffs Plan A8.608 - Sheriffs, undersheriffs and all deputized personnel of the Sheriff's Department hired on or after January 7, 2012	3.0% @ age 58; maximum benefit 90% of average monthly compensation (36 mo. avg.)
Miscellaneous Safety Plan A8.610 - Probation Officers, District Attorney Investigators and Juvenile Court Counselors who hired on or after January 7, 2012	2.7% @ age 58; maximum benefit 90% of average monthly compensation (36 mo. avg.)

(c) Disability Retirement

All members are eligible to apply for a disability retirement benefit, regardless of age, when they have 10 or more years of credited service and they sustain an injury or illness that prevents them from performing their duties. Safety members are eligible to apply for an industrial disability retirement benefit from their first day on the job if their disability is caused by an illness or injury that they receive while performing their duties.

(d) Separation and Death Benefits

Upon separation from employment, members may either elect to withdraw their accumulated contributions from the Plan or, if they have 5 or more years of credited service, elect to leave their accumulated contribution in the Plan and receive a vesting benefit that is first payable at or after age 50 for Safety members or members hired prior to January 7, 2012 or at or after age 53 for non-Safety members hired on or after January 7, 2012.

Prior to retirement, qualified surviving spouses or qualified domestic partners receive death benefits based upon a percentage of the service retirement benefit. Prior to eligibility for service retirement, a lump sum death payment equal to 6 months' earnable salary plus the member's accumulated contributions is payable to the members' named beneficiary or estate. For Safety members whose death is due to injury or illness caused by performance of duty, salary continuance is provided until the date member would have been eligible for service retirement.

Death benefits after retirement are contingent upon the form of annuity payment selected by the member.

(e) Cost of Living Adjustments (COLA)

Basic COLA: All retired members receive a benefit adjustment each July 1. The majority of adjustments are determined by changes in CPI with increases capped at 2%. Old Plan Police and Firefighter members receive benefit adjustments based upon 50% of either the actual dollar or the percentage change in the salary of the rank or position on which the member's retirement benefit is based. Although decreases are possible in a given year, a negative adjustment cannot reduce a member's monthly benefit below the initial pension amount.

Supplemental COLA: The Plan provides for a Supplemental COLA in years when there are sufficient "excess" investment earnings in the Plan. Effective July 1, 2012, voters approved changes in the criteria for payment of the Supplemental COLA benefit. Certain provisions of the voter approved proposition were challenged in the Courts. A decision by the California Courts modified the interpretation of the proposition. Effective July 1, 2012, SFERS members who retired before November 6, 1996 will receive a Supplemental COLA when there are sufficient "excess" investment earnings in the Plan and the Plan is also fully funded on a market value of assets basis. The "full funding" requirement does not apply to SFERS members who retired on or after November 6, 1996 and were hired before January 7, 2012. For members who were hired before January 7, 2012, all Supplemental COLAs paid to them in retirement benefits will continue into the future even where an additional Supplemental COLA is not payable in any given year. For members who are hired on and after January 7, 2012, a Supplemental COLA will be paid to retirees when there are sufficient "excess" investment earnings in the Plan and the Plan is also fully funded on a market value of assets basis. For this group, Supplemental COLAs will not be permanent adjustments to retirement benefits. In years when a Supplemental COLA is not paid, all previously paid Supplemental COLAs will expire.

Ad-hoc COLA: There is no authority for granting ad-hoc COLA increases.

(f) Deferred Retirement Option Program

In February 2008, the voters of the City and County approved a Charter amendment to provide a Deferred Retirement Option Program (DROP) for certain Police members of the Plan to be effective July 1, 2008. An eligible police officer could elect to participate in DROP for a specified period of time up to a maximum of three years depending on the rank of the police officer. While participating in DROP, the police officer continues to work and receive pay as a police officer and accrues monthly DROP distributions posted to a nominal account maintained by the Retirement System. The monthly DROP distribution is equal to the participant's monthly service retirement allowance calculated as of the participant's entry into DROP. Interest at an annual effective rate of 4% and applicable COLAs are posted to the participant's DROP account during participation in DROP. Upon exiting from DROP, the participant receives a lump sum distribution from his or her DROP account and begins to receive a monthly service retirement allowance calculated using age, covered compensation, and service frozen as of the date of his or her entry into DROP. DROP was closed to new applicants on June 30, 2011.

The Retirement System held $313 thousand pursuant to the DROP as of June 30, 2017.

(g) Membership

Total membership in the Retirement System as of July 1, 2017 is as follows:

	Police[1]	Fire	Miscellaneous	Total
Active members (including DROP)	2,293	1,609	29,545	33,447
Terminated members entitled to but not yet receiving benefits	199	75	8,146	8,420
Retirees and beneficiaries currently receiving benefits	2,647	2,075	24,399	29,121
Total	**5,139**	**3,759**	**62,090**	**70,988**

[1] Police counts include Sheriff and Miscellaneous Safety.

(2) Summary of Significant Accounting Policies

(a) Basis of Presentation

The accompanying financial statements are prepared on the accrual basis of accounting in accordance with accounting principles generally accepted in the United States of America as promulgated by the Governmental Accounting Standards Board (GASB).

Member contributions are recognized in the period in which the contributions are due. Employer contributions and member contributions made by the employer to the Plan are recognized when due pursuant to legal requirements. Benefits and refunds are recognized when currently due and payable in accordance with the terms of the Plan.

(b) Investments

Investments are reported at fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Securities that do not have an established market are reported at estimated fair value derived from third party pricing services. Purchases and sales of investments are recorded on a trade date basis.

The fair values of the Retirement System's real estate investments are based on net asset values provided by the investment managers. Partnership financial statements are audited annually as of December 31 and net asset values are adjusted monthly or quarterly for cash flows to/from the Retirement System, investment earnings and expenses, and changes in fair value. The Retirement System has established leverage limits for each investment style based on the risk/return profile of the underlying investments. The leverage limits for core and value-added real estate investments are 40% and 65%, respectively. The leverage limits for high return real estate investments depend on each specific offering. Outstanding mortgages for the Retirement System's real estate investments were $7.4 million as of June 30, 2017. The underlying real estate holdings are valued periodically based on appraisals performed by independent appraisers in accordance with Uniform Standards of Professional Appraisal Practice (USPAP). Such fair value estimates involve subjective judgments of unrealized gains and losses, and the actual market price of the real estate can only be determined by negotiation between independent third parties in a purchase and sale transaction.

Private equity investments represent the Retirement System's interest in limited partnerships. The fair values of private equity investments are based on net asset values provided by the general partners. Partnership financial statements are audited annually as of December 31 and net asset values are adjusted monthly or quarterly for cash flows to or from the Retirement System, investment earnings and changes in fair value. Such fair value estimates involve subjective judgments of unrealized gains and losses, and the actual market price of the investments can only be determined by negotiation between independent third parties in a purchase and sale transaction.

The Absolute Return Program invests in limited partnerships and other alternative investment vehicles. The most common investment strategies include, but are not limited to Equity, Credit, Macro, Emerging Markets, Quantitative, Multi-Strategy, Special Situations, and Commodities. These investments are valued using their respective Net Asset Value (NAV), and are audited annually. The most significant input into the NAV of such an entity is the fair value of its investment holdings. These holdings are typically valued on a monthly basis by each fund's independent administrator and for certain illiquid investments, where no market exists, the General Partner may provide pricing input.

The management assumptions are based upon the nature of the investment and the underlying business. Investments have the potential to become illiquid under stressed market conditions and, in certain circumstances, investors may be subject to redemption restrictions which can impede the timely return of capital. The valuation techniques vary based upon investment type, but are predominantly derived from observed market prices.

The Charter and Retirement Board policies permit the Retirement System to use investments of the Plan to enter into securities lending transactions – loans of securities to broker dealers and other entities for collateral with a simultaneous agreement to return the collateral for the same securities in the future. The collateral may consist of cash or non-cash; non-cash collateral is generally U.S. Treasuries or other U.S. government obligations. The Retirement System's securities custodian is the agent in lending the Plan's domestic securities for collateral of 102% and international securities for collateral of 105%. Contracts with the lending agent require them to indemnify the Retirement System if the borrowers fail to return the securities (and if the collateral were inadequate to replace the securities lent) or fail to pay the Retirement System for income distributions by the securities' issuers while the securities are on loan. Non-cash collateral cannot be pledged or sold unless the borrower defaults, and therefore, is not reported in the Retirement System's financial statements.

All securities loans can be terminated on demand by either the Retirement System or the borrower, although the average term of the loans as of June 30, 2017 was 31 days. All cash collateral received was invested in a separately managed account by the lending agent using investment guidelines developed and approved by the Retirement System. As of June 30, 2017, the weighted average maturity of the reinvested cash collateral account was 1 day. The term to maturity of the loaned securities is generally not matched with the term to maturity of the investment of the said collateral. Cash collateral may also be invested separately in term loans, in which case the maturity of the loaned securities matches the term of the loan.

Cash collateral invested in the separate account managed by the lending agent is reported at fair value. Payable to borrowers of securities in the statements of fiduciary net position represents the cash collateral received from borrowers. Additionally, the income and costs of securities lending transactions, such as borrower rebates and fees, are recorded respectively as revenues and expenses in the statements of changes in fiduciary net position.

(c) Administrative Expenses

All costs to administer the Retirement System are borne by the Retirement System.

(d) Use of Estimates

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

(e) Implementation of GASB Statement

The Retirement System adopted GASB Statement No. 72, Fair Value Measurement and Application. This Statement addresses accounting and financial reporting issues related to fair value measurements. GASB Statement No. 72 requires the Retirement System to use valuation techniques that are appropriate under the circumstances and for which sufficient data are available to measure fair value. The techniques should be consistent with one or more of the following approaches: the market approach, the cost approach, or the income approach. This Statement establishes a three-tier hierarchy of inputs to valuation techniques used to measure fair value:

- Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2 inputs are inputs, other than quoted prices included within Level 1, that are observable for the asset or liability, either directly or indirectly.
- Level 3 inputs are all inputs that are unobservable.

The Retirement System's implementation of this Statement effective July 1, 2015 has no material impact on the financial statements. The additional disclosures and related notes are presented in Note 5.

(3) Deposits

Deposits are carried at cost, which approximates fair value. Deposits in bank accounts were $65.7 million as of June 30, 2017. Deposit and investment risk disclosures for the pooled funds with the City and County Treasurer are discussed in the City and County's basic financial statements.

Custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, a government may not be able to recover its deposits or may not be able to recover collateral securities that are in the possession of an outside party. The Retirement System does not have a specific policy addressing custodial credit risk for deposits. As of June 30, 2017, the Retirement System's deposits in bank accounts were not exposed to custodial credit risk.

(4) Investments

The Retirement System's investments are invested pursuant to investment policy guidelines as established by the Retirement Board. The objective of the policy is to maximize the expected return of the fund at an acceptable level of risk. The Retirement Board has established percentage guidelines for types of investments to ensure the portfolio is diversified.

Investment managers are required to diversify by issue, maturity, sector, coupon, and geography. Investment managers retained by the Retirement System follow specific investment guidelines and are evaluated against specific market benchmarks that represent their investment style. Any exemption from general guidelines requires approval from the Retirement Board.

The Retirement System invests in securities with contractual cash flows, such as asset backed securities, commercial mortgage backed securities, and collateralized mortgage obligations. The value, liquidity, and related income of these securities are sensitive to changes in economic conditions, including real estate values, delinquencies or defaults, or both, and may be affected by shifts in the market's perception of the issuers and changes in interest rates.

The investment policy permits investments in domestic and international debt and equity securities; real estate; securities lending; foreign currency contracts, derivative instruments, and private equity investments, which include investments in a variety of commingled partnership vehicles.

The Retirement Board's asset allocation policy for the year ended June 30, 2017 is as follows:

Asset Class	Target Allocation
Global Equity	40.0%
Fixed Income	20.0%
Private Equity	18.0%
Real Assets	17.0%
Hedge Funds/Absolute Returns	5.0%
	100.0%

The Retirement System is not directly involved in repurchase or reverse repurchase agreements. However, external investment managers retained by the Retirement System may employ repurchase arrangements if the securities purchased or sold comply with the manager's investment guidelines. The Retirement System monitors the investment activity of its investment managers to ensure compliance with guidelines. In addition, the Retirement System's securities lending cash collateral separately managed account is authorized to use repurchase arrangements. As of June 30, 2017, zero (or none of the reinvested cash collateral) consisted of such agreements.

The Retirement System maintains its operating fund cash in the City and County's investment pool. The City's pool is invested pursuant to investment policy guidelines established by the City Treasurer, subject to review by the Treasury Oversight Committee. The Treasury Oversight Committee, established under California Government Code Sections 27130 to 27137, is composed of various City officials and representatives of agencies with large cash balances in the pool. The policy addresses soundness of financial institutions in which the City will deposit funds, types of investment instruments as permitted by the California Government Code, and the percentage of the portfolio which may be invested in certain instruments with longer terms to maturity. The provisions of the City's investment policy also address interest rate risk, credit risk, and concentration of credit risk and provide for additional restrictions related to investments. The notes to the basic financial statements of the City provide more detailed information concerning deposit and investment risks associated with the City's pool of cash and investments at June 30, 2017.

(a) Interest Rate Risk

Interest rate risk is the risk that changes in interest rates may adversely affect the fair value of an investment. The Retirement System does not have a specific policy to manage interest rate risk.

The table below depicts the segmented time distribution for fixed income investments based upon the expected maturity (in years) as of June 30, 2017.

Fixed Income Investments at Fair Value as of June 30, 2017

(Dollars in thousands)

		Maturities			
Investment Type	**Fair Value**	**Less than 1 year**	**1-5 years**	**6-10 years**	**10+ years**
Asset Backed Securities	$ 163,350	$ -	$ 69,301	$ 8,992	$ 85,057
Bank Loans	148,645	1,870	79,302	67,473	-
City Investment Pool	11,800	-	11,800	-	-
Collateralized Bonds	184	-	-	-	184
Commercial Mortgage-Backed	425,755	-	5,124	4,298	416,333
Commingled and Other Fixed Income Funds	373,993	387,199	1,084	117	(14,407)
Corporate Bonds	1,421,430	532,928	401,830	321,188	165,484
Corporate Convertible Bonds	189,953	7,342	105,315	42,489	34,807
Foreign Currencies and Cash Equivalents	134,745	134,745	-	-	-
Government Agencies	371,575	360,801	-	544	10,230
Government Bonds	1,116,583	44,633	876,704	47,440	147,806
Government Mortgage Backed Securities	144,202	11	10,387	4,210	129,594
Municipal/Provincial Bonds	33,513	2,618	3,052	1,551	26,292
Non-Government Backed Collateralized Mortgage Obligations	55,790	3	2,511	1	53,275
Options	(12)	(12)	-	-	-
Short Term Investment Funds	212,999	212,999	-	-	-
Swaps	1,441	1,034	11	271	125
Total	**$ 4,805,946**	**$ 1,686,171**	**$ 1,566,421**	**$ 498,574**	**$ 1,054,780**

(b) Credit Risk – Investments

Credit risk is the risk that an issuer or other counterparty to an investment may not fulfill its obligations. Fixed income investment managers retained by the Retirement System follow specific investment guidelines and are evaluated against specific market benchmarks that represent their investment style. Fixed income managers typically are limited within their portfolios to no more than 5% exposure in any single security, with the exception of United States Treasury and government agency securities. The Retirement System's credit risk policy is embedded in the individual investment manager agreements as prescribed and approved by the Retirement Board.

Investments are classified and rated using the lower of (1) Standard & Poor's (S&P) rating or (2) Moody's Investors Service (Moody's) rating corresponding to the equivalent S&P rating. If only a Moody's rating is available, the rating equivalent to S&P is used for the purpose of this disclosure.

The credit rating of the United States remains a point of concern for investors. In 2011, S&P lowered the credit rating for U.S. long-term debt to AA+ from AAA and continues to maintain that posture. Moody's and Fitch, the other two large credit rating agencies, continue to maintain a AAA rating for U.S. long-term debt, although Fitch placed the U.S. on negative watch in October 2013 – indicating the potential for a credit downgrade. The ongoing concern by the credit rating agencies about the credit worthiness of U.S. government debt has an impact on the credit risk and value of the Retirement System's investments in U.S. government agency securities, U.S. government bonds, and U.S. government mortgage-backed securities.

The following table illustrates the Retirement System's exposure to credit risk as of June 30, 2017. Investments issued or explicitly guaranteed by the U.S. government of $1,021.7 million as of June 30, 2017 are exempt from the credit rating disclosures and are excluded from the table to follow.

Credit Ratings of Fixed Income Investments as of June 30, 2017
(Dollars in thousands)

Credit Rating	Fair Value	Fair Value as a Percentage of Total
AAA	$ 166,573	4.4%
AA	46,442	1.2%
A	203,966	5.4%
BBB	708,834	18.7%
BB	239,996	6.3%
B	252,346	6.7%
CCC	53,906	1.4%
CC	2,424	0.1%
C	2,279	0.1%
D	1,766	0.0%
Not Rated	2,105,738	55.7%
Total	$ 3,784,270	100.0%

The securities listed as "Not Rated" include short-term investment funds, government mortgage backed securities, and investments that invest primarily in rated securities, such as commingled funds and money market funds, but do not themselves have a specific credit rating. Excluding these investments, the "not rated" component of credit would be approximately 20.2% for 2017.

(c) Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the magnitude of the Retirement System's investment in a single issuer. Guidelines for investment managers typically restrict a position to become no more than 5% (at fair value) of the investment manager's portfolio. Securities issued or guaranteed by the U.S. government or its agencies are exempt from this limit.

As of June 30, 2017, the Retirement System had no investments of a single issuer that equaled or exceeded 5% of total Retirement System's investments or net position.

(d) Custodial Credit Risk

Custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, a government may not be able to recover the value of investment or collateral securities that are in the possession of an outside party. The Retirement System does not have a specific policy addressing custodial credit risk for investments, but investments are generally insured, registered, or held by the Retirement System or its agent in the Retirement System's name. As of June 30, 2017, $759.6 million of the Retirement System's investments were exposed to custodial credit risk because they were not insured or registered in the name of the Retirement System, and were held by the counterparty's trust department or agent but not in the Retirement System's name.

For fiscal year 2017, cash received as securities lending collateral is invested in a separate account managed by the lending agent using investment guidelines approved by the Retirement System and held by the custodial bank. Securities in this separately managed account are not exposed to custodial credit risk.

(e) Foreign Currency Risk

The Retirement System's exposure to foreign currency risk derives from its positions in foreign currency denominated cash, equity, fixed income, private equity investments, real assets, and swap investments. The Retirement System's investment policy allows international managers to enter into foreign exchange contracts, which are limited to hedging currency exposure existing in the portfolio. Derivatives are considered investments, rather than hedges, for accounting and financial reporting purposes.

The Retirement System's net exposures to foreign currency risk as of June 30, 2017 are as follows:

Foreign Currency Risk Analysis as of June 30, 2017

(Dollars in thousands)

Currency	Cash	Equities	Fixed Income	Private Equities	Real Assets	Foreign Currency Contracts	Total
Australian dollar	$ -	$ 103,293	$ -	$ 10,641	$ -	$ 2,650	$ 116,584
Brazilian real	-	26,060	19,870	-	-	(5,475)	40,455
British pound sterling	-	533,900	12,635	-	18,874	(45,288)	520,121
Canadian dollar	-	69,595	6,851	-	-	30,932	107,378
Chilean peso	-	2,012	-	-	-	94	2,106
Chinese yuan renminbi	-	-	-	-	-	(1,582)	(1,582)
Colombian peso	-	-	5,451	-	-	1,872	7,323
Czech koruna	-	337	-	-	-	(101)	236
Danish krone	-	39,117	-	-	-	(1,423)	37,694
Euro	-	745,340	108,816	148,583	39,685	(66,038)	976,386
HK offshore Chinese Yuan Renminbi	-	-	-	-	-	(1,052)	(1,052)
Hong Kong dollar	-	162,696	-	-	-	3,862	166,558
Hungarian forint	-	327	-	-	-	2,515	2,842
Indian rupee	-	-	-	-	-	564	564
Indonesian rupiah	-	11,124	10,163	-	-	1,100	22,387
Japanese yen	89	532,090	-	-	23,343	98,308	653,830
Malaysian ringgit	-	20,648	6,628	-	-	4,087	31,363
Mexican peso	-	34,580	9,098	-	-	4,764	48,442
New Israeli shekel	-	9,684	-	-	-	5,513	15,197
New Romanian leu	-	-	2,138	-	-	(740)	1,398
New Taiwan dollar	-	66,010	-	-	-	(2,758)	63,252
New Zealand dollar	-	3,173	-	-	-	53,079	56,252
Norwegian krone	-	11,965	-	-	-	(1,661)	10,304
Peruvian nuevo sol	-	-	2,398	-	-	(319)	2,079
Philippine peso	-	2,641	811	-	-	(272)	3,180
Polish zloty	-	-	9,510	-	-	2,280	11,790
Qatari rial	-	5,448	-	-	-	-	5,448
Russian ruble	-	-	5,857	-	-	721	6,578
Singapore dollar	-	14,748	-	-	-	3,074	17,822
South African rand	-	24,765	8,183	-	-	2,250	35,198
South Korean won	-	98,501	-	-	-	(75)	98,426
Swedish krona	-	65,241	-	-	-	9,961	75,202
Swiss franc	-	192,496	147	-	-	(33,363)	159,280
Thai baht	-	7,354	2,198	-	-	6,696	16,248
Turkish lira	-	10,286	17,013	-	-	(7,381)	19,918
United Arab Emirates dirham	-	5,893	-	-	-	-	5,893
Grand Total	**$ 89**	**$ 2,799,324**	**$ 227,767**	**$ 159,224**	**$ 81,902**	**$ 66,794**	**$ 3,335,100**

(f) Unfunded Investments Commitments

The Retirement System has unfunded commitments to contribute capital for real assets in the amount of $2,072.5 million, private equities in the amount of $2,595.8 million, private credit Investments (formerly known as opportunistic fixed income) in the amount of $571.6 million, and absolute return in the amount of $73.8 million totaling $5,313.7 million as of June 30, 2017.

(g) Derivative Instruments

The Retirement System reports its derivative instruments under the provisions of GASB Statement No. 53, Accounting and Financial Reporting for Derivative Instruments. Pursuant to the requirements of this statement, the Retirement System has provided a summary of derivative instrument activities during the reporting periods presented and the related risks.

As of June 30, 2017, the derivative instruments held by the Retirement System are considered investments and not hedges for accounting purposes. The gains and losses arising from this activity are recognized as incurred in the statement of changes in fiduciary net position. All investment derivatives discussed below are included within the investment risk schedules, which precede this subsection. Investment derivative instruments are disclosed separately to provide a comprehensive and distinct view of this activity and its impact on the overall investment portfolio.

Valuation methods used by the Retirement System are described in more detail in Note 2(b). The fair value of the exchange traded derivative instruments, such as futures, options, rights, and warrants are based on quoted market prices. The fair values of forward foreign currency contracts are determined using a pricing service, which uses published foreign exchange rates as the primary source. The fair values of swaps are determined by the Retirement System's investment managers based on quoted market prices of the underlying investment instruments.

The table below presents the notional amounts, the fair values, and the related net appreciation (depreciation) in the fair value of derivative instruments that were outstanding at June 30, 2017:

Derivative Instruments as of and for the Year Ended June 30, 2017

(Dollars in thousands)

Derivative Type / Contracts	Notional Amount	Fair Value	Net Appreciation (Depreciation) in Fair Value
Forwards			
Foreign Exchange Contracts	(a)	$ 167	$ 167
Other Contracts	(a)	(153)	(151)
Options			
Foreign Exchange Contracts	$ 3,900	(12)	76
Swaps			
Credit Contracts	5,000	(45)	73
Interest Rate Contracts	46,632	253	326
Rights/Warrants	80	1,233	1,233
Equity Contracts	12,458 shares	76	(2,306)
Total		**$ 1,519**	**$ (582)**

(a) SFERS' investment managers enter into a wide variety of forward foreign exchange and other contracts, which frequently do not involve the US dollar. As a result, a US dollar-based notional value is not included.

All investment derivatives are reported as investments at fair value in the statement of fiduciary net position. Rights and warrants are reported in equity securities. Foreign exchange contracts are reported in foreign currency contracts, which also include spot contracts that are not derivatives. All other derivative contracts are reported in other debt securities. All changes in fair value are reported as net appreciation (depreciation) in fair value of investments in the statements of changes in fiduciary net position.

Counterparty Credit Risk

The Retirement System is exposed to credit risk on non-exchange traded derivative instruments that are in asset positions. As of June 30, 2017, the fair value of forward currency contracts in asset positions (including foreign exchange contract options) to purchase and sell international currencies were $967,000 and $811,000, respectively. The Retirement System's counterparties to these contracts held credit ratings of A or better on 85.3% and credit ratings of B on 14.0% of the positions, as assigned by one or more of the major credit rating organizations (S&P, Moody's and/or Fitch), while 0.7% was not rated.

Custodial Credit Risk

The custodial credit risk disclosure for exchange traded derivative instruments is made in accordance with the custodial credit risk disclosure requirements of GASB Statement No. 40. At June 30, 2017, all of the Retirement System's investments in derivative instruments are held in the Retirement System's name and are not exposed to custodial credit risk.

Interest Rate Risk

The table below describes the maturity periods of the derivative instruments exposed to interest rate risk at June 30, 2017.

Derivative Interest Rate Risk as of June 30, 2017

(Dollars in thousands)

		Maturities			
Derivative Type / Contracts	**Fair Value**	**Less than 1 year**	**1-5 years**	**6-10 years**	
Forwards					
Foreign Exchange Contracts	$ 167	$ 178	$ (11)	$ -	$ -
Options					
Foreign Exchange Contracts	(12)	(12)	-	-	-
Swaps					
Credit Contracts	(45)	18	(63)	-	-
Interest Rate Contracts	253	(217)	74	271	125
Total Return Contracts	1,233	1,233	-	-	-
Total	**$ 1,596**	**$ 1,200**	**$ -**	**$ 271**	**$ 125**

The following table details the reference rate, notional amount, and fair value of interest rate swaps that are highly sensitive to changes in interest rates as of June 30, 2017:

Derivative Instruments Highly Sensitive to Interest Rate Changes as of June 30, 2017

(Dollars in thousands)

Investment Type	Reference Rate	Notional Value	Fair Value
Interest Rate Swap	Receive Fixed 1.93%, Pay Variable 6-Month THB	$311	$2
Interest Rate Swap	Receive Fixed 2.015%, Pay Variable 6-Month THB	589	6
Interest Rate Swap	Receive Fixed 2.115%, Pay Variable 6-Month THB	1,027	11
Interest Rate Swap	Receive Fixed 2.12%, Pay Variable 6-Month THB	386	5
Interest Rate Swap	Receive Fixed 2.175%, Pay Variable 6-Month THB	665	10
Interest Rate Swap	Receive Fixed 2.19%, Pay Variable 6-Month THB	206	3
Interest Rate Swap	Receive Fixed 2.22%, Pay Variable 6-Month THB	412	6
Interest Rate Swap	Receive Fixed 2.25%, Pay Variable 1-Day WIBOR	836	(6)
Interest Rate Swap	Receive Fixed 2.505%, Pay Variable 6-Month THB	321	7
Interest Rate Swap	Receive Fixed 2.56%, Pay Variable 6-Month THB	689	14
Interest Rate Swap	Receive Fixed 2.58%, Pay Variable 6-Month THB	386	10
Interest Rate Swap	Receive Fixed 2.625%, Pay Variable 6-Month THB	645	20
Interest Rate Swap	Receive Fixed 2.78%, Pay Variable 6-Month THB	27	1
Interest Rate Swap	Receive Fixed 5.23%, Pay Variable 3-Month CIBR	118	1
Interest Rate Swap	Receive Fixed 5.32%, Pay Variable 3-Month CIBR	540	6
Interest Rate Swap	Receive Fixed 5.33%, Pay Variable 3-Month CIBR	547	6
Interest Rate Swap	Receive Fixed 5.61%, Pay Variable 28-Day MXIBR	431	(17)
Interest Rate Swap	Receive Fixed 5.63%, Pay Variable 28-Day MXIBR	1,028	(42)
Interest Rate Swap	Receive Fixed 5.84%, Pay Variable 28-Day MXIBR	348	(11)
Interest Rate Swap	Receive Fixed 6.12%, Pay Variable 3-Month CIBR	107	3
Interest Rate Swap	Receive Fixed 6.20%, Pay Variable 3-Month CIBR	98	3
Interest Rate Swap	Receive Fixed 6.24%, Pay Variable 28-Day MXIBR	138	(2)
Interest Rate Swap	Receive Fixed 6.49%, Pay Variable 28-Day MXIBR	315	(13)
Interest Rate Swap	Receive Fixed 6.80%, Pay Variable 28-Day MXIBR	133	(1)
Interest Rate Swap	Receive Fixed 7.38%, Pay Variable 28-Day MXIBR	1,293	26
Interest Rate Swap	Receive Fixed 7.50%, Pay Variable 3-Month JIBAR	2,313	13
Interest Rate Swap	Receive Fixed 7.75%, Pay Variable 3-Month JIBAR	664	8
Interest Rate Swap	Receive Fixed 7.86%, Pay Variable 28-Day MXIBR	1,022	54
Interest Rate Swap	Receive Fixed 8.00%, Pay Variable 3-Month JIBAR	53	1
Interest Rate Swap	Receive Fixed 8.25%, Pay Variable 3-Month JIBAR	229	4
Interest Rate Swap	Receive Fixed 8.28%, Pay Variable 28-Day MXIBR	215	17
Interest Rate Swap	Receive Fixed 8.31%, Pay Variable 28-Day MXIBR	88	7
Interest Rate Swap	Receive Fixed 8.32%, Pay Variable 28-Day MXIBR	663	56
Interest Rate Swap	Receive Fixed 8.50%, Pay Variable 3-Month JIBAR	481	18
Interest Rate Swap	Receive Fixed 8.75%, Pay Variable 3-Month JIBAR	38	2

Derivative Instruments Highly Sensitive to Interest Rate Changes as of June 30, 2017 (cont.)

(Dollars in thousands)

Investment Type	Reference Rate	Notional Value	Fair Value
Interest Rate Swap	Receive Fixed 9.50%, Pay Variable 3-Month JIBAR	244	25
Interest Rate Swap	Receive Fixed 9.76%, Pay Variable 1-Day BIDOR	15	(1)
Interest Rate Swap	Receive Fixed 10.30%, Pay Variable 1-Day BIDOR	211	(4)
Interest Rate Swap	Receive Fixed 11.33%, Pay Variable 1-Day BIDOR	1,088	58
Interest Rate Swap	Receive Fixed 11.35%, Pay Variable 1-Day BIDOR	2,151	99
Interest Rate Swap	Receive Fixed 11.38%, Pay Variable 1-Day BIDOR	1,766	68
Interest Rate Swap	Receive Fixed 12.20%, Pay Variable 1-Day BIDOR	1,071	79
Interest Rate Swap	Receive Fixed 12.28%, Pay Variable 1-Day BIDOR	636	84
Interest Rate Swap	Receive Fixed 12.44%, Pay Variable 1-Day BIDOR	1,854	91
Interest Rate Swap	Receive Fixed 15.96%, Pay Variable 1-Day BIDOR	884	148
Interest Rate Swap	Receive Fixed 16.40%, Pay Variable 1-Day BIDOR	1,722	561
Interest Rate Swap	Receive Fixed 16.95%, Pay Variable 1-Day BIDOR	80	31
Interest Rate Swap	Receive Variable 1-Day BIDOR, Pay Fixed 11.16%	93	1
Interest Rate Swap	Receive Variable 1-Day BIDOR, Pay Fixed 11.26%	724	(38)
Interest Rate Swap	Receive Variable 1-Day BIDOR, Pay Fixed 12.06%	244	(16)
Interest Rate Swap	Receive Variable 1-Day BIDOR, Pay Fixed 12.44%	5,070	(248)
Interest Rate Swap	Receive Variable 1-Day BIDOR, Pay Fixed 12.86%	630	(5)
Interest Rate Swap	Receive Variable 1-Day BIDOR, Pay Fixed 15.50%	1,088	(85)
Interest Rate Swap	Receive Variable 1-Day BIDOR, Pay Fixed 15.77%	1,581	(135)
Interest Rate Swap	Receive Variable 1-Day BIDOR, Pay Fixed 15.96%	4,017	(671)
Interest Rate Swap	Receive Variable 1-Day BIDOR, Pay Fixed 16.15%	229	(71)
Interest Rate Swap	Receive Variable 28-Day MXIBR, Pay Fixed 4.65%	431	9
Interest Rate Swap	Receive Variable 28-Day MXIBR, Pay Fixed 6.50%	249	18
Interest Rate Swap	Receive Variable 28-Day MXIBR, Pay Fixed 6.71%	751	35
Interest Rate Swap	Receive Variable 3-Month CIBR, Pay Fixed 6.42%	69	(3)
Interest Rate Swap	Receive Variable 3-Month CIBR, Pay Fixed 6.43%	31	(1)
Interest Rate Swap	Receive Variable 3-Month JIBAR, Pay Fixed 8.09%	511	(3)
Interest Rate Swap	Receive Variable 3-Month JIBAR, Pay Fixed 8.25%	1,120	(18)
Interest Rate Swap	Receive Variable 3-Month JIBAR, Pay Fixed 8.50%	168	(6)
Interest Rate Swap	Receive Fixed 2.81%, Pay Return THB	542	23
Total Interest Rate Swaps		**$ 46,632**	**$ 253**

Foreign Currency Risk

At June 30, 2017, the Retirement System is exposed to foreign currency risk on its investments in forwards, rights, warrants, and swaps denominated in foreign currencies.

Derivative Instruments Foreign Currency Risk Analysis as of June 30, 2017

(Dollars in thousands)

Currency	Forwards	Rights/ Warrants	Swaps	Total
Argentine peso	$ 149	$ -	$ -	$ 149
Australian dollar	-	6	25	31
Brazilian real	(10,598)	-	(55)	(10,653)
British pound sterling	(6,219)	-	-	(6,219)
Canadian dollar	747	-	-	747
Chilean peso	(241)	-	-	(241)
Colombian peso	1,342	-	16	1,358
Czech koruna	1,273	-	-	1,273
Euro	(36,771)	41	567	(36,163)
Offshore Chinese yuan renminbi	(1,285)	-		(1,285)
Hong Kong dollar	(36)	-	-	(36)
Hungarian forint	2,166	-	-	2,166
Indian rupee	764	-	-	764
Indonesian rupiah	2,846	-	-	2,846
Japanese yen	(1,096)	-	-	(1,096)
Malaysian ringgit	1,807	-	-	1,807
Mexican peso	5,867	-	135	6,002
New Romanian Leu	262	-	-	262
New Russian ruble	36	-	-	36
New Taiwan dollar	(2,332)	-	-	(2,332)
Peruvian nuevo sol	168	-	-	168
Philippine peso	(57)	-	-	(57)
Polish zloty	5,790	-	(6)	5,784
Singapore dollar	(592)	-	-	(592)
South African rand	(997)	-	45	(952)
South Korean won	(732)	-	-	(732)
Swedish krona	-	-	399	399
Swiss franc	(117)	-	243	126
Thai baht	9,928	-	118	10,046
Turkish lira	4,753	-	-	4,753
Total	**$ (23,175)**	**$ 47**	**$ 1,487**	**$ (21,641)**

Contingent Features

At June 30, 2017, the Retirement System held no positions in derivatives containing contingent features.

(5) Fair Value Measurement of Investments

In Fiscal Year 2016, the Retirement System adopted GASB Statement No. 72, Fair Value Measurement and Application. The Retirement System categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles

The Retirement System has the following recurring fair value measurements as of June 30, 2017:

As of June 30, 2017	Total	Quoted Prices in Active Markets for Identical Assets (Level One)	Significant Other Observable Inputs (Level Two)	Unobservable Inputs (Level Three)
Investments by fair value level				
Short-term investments	$ 329,587	$ -	$ 2,967	$ 326,620
Debt securities:				
U.S. government and agency securities	1,194,634	-	1,194,634	-
Other debt securities	2,004,564	-	1,940,027	64,537
Equity securities:				
Domestic	4,749,997	4,654,187	203	95,607
International	3,770,343	3,764,376	4,084	1,883
Foreign currency contracts, net	164	-	-	164
Invested securities lending collateral	201	-	-	201
Total investments by fair value level	$ 12,049,490	$ 8,418,563	$ 3,141,915	$ 489,012
Investments measured at the net asset value (NAV)				
Short-term investments	18,157			
Fixed income funds invested in:				
U.S. government and agency securities	360,546			
Other debt Securities	886,658			
Equity funds invested in:				
Domestic	916,247			
International	1,121,429			
Real assets	2,975,974			
Private Equity	3,401,547			
Absolute return	577,967			
Total investments measured at the NAV	10,258,525			
Investments not subject to the fair value hierarchy				
City investment pool	11,800			
Total investments measured at fair value	$ 22,319,815			

Investments, at Fair Value

Equity securities classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets. Debt and equity securities classified in Level 2 of the fair value hierarchy are valued using prices determined by the use of matrix pricing techniques maintained by the various pricing vendors for these securities. Debt securities including short-term instruments are priced based on evaluated prices. Such evaluated prices may be determined by factors which include, but are not limited to, market quotations, yields, maturities, call features, ratings, institutional size trading in similar groups of securities and developments related to specific securities. For equity securities not traded on an active exchange, or if the closing price is not available, corroborated indicative quotes obtained from pricing vendors are generally used. Debt and equity securities classified in Level 3 of the fair value hierarchy are securities whose stated market prices are unobservable by the market place. Many of these securities are priced using uncorroborated indicative quotes, adjusted prices based on inputs from different sources, or evaluated prices using unobservable inputs, such as extrapolated data, proprietary models, and indicative quotes from pricing vendors.

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. In some cases, a valuation technique may have multiple inputs used to measure fair value, and each input might fall into a different level of the fair value hierarchy. The level in the fair value hierarchy within which a fair value measurement falls in its entirety is determined based on the lowest level input that is significant to the measurement. The prices used in determining the fair value hierarchy are obtained from various pricing sources by the Retirement System's custodian bank.

Investments, at Net Asset Value (NAV)

The equity and debt funds are commingled funds that are priced at net asset value by industry vendors and fund families. NAV is the market value of all securities owned by a fund, minus its total liabilities, divided by the number of shares issued and outstanding. The NAV of an open-end fund is its price.

The fair value of the Retirement System's investments in Private Credit investments, Opportunistic Public Equity, Real Assets, Private Equity, and Absolute Return investments are based on net asset values provided by the investment managers and general partners (hereinafter collectively referred to as the "General Partners"). Such value generally represents the Retirement System's proportionate share of the net assets of the limited partnerships. The partnership financial statements are audited annually as of December 31 and the net asset value are adjusted by additional contributions to and distributions from the partnership, the Retirement System's share of net earnings and losses, and unrealized gains and losses resulting from changes in fair value, as determined by the General Partners.

The General Partners may use one or more valuation methodologies outlined in FASB ASC 820, Fair Value Measurement. For some investments, little market activity may exist. The General Partners' determination of fair value is then based on the best information available in the circumstances and may involve subjective assumptions and estimates, including the General Partners' assessment of the information that market participants would use in valuing the investments. The General Partners may take into consideration a combination of internal and external factors, including but not limit to, appropriate risk adjustments for nonperformance and liquidity. Such fair value estimates involve subjective judgments of unrealized gains and losses.

The values provided by the General Partners may differ significantly from the values that would have been used had a ready market existed for these investments.

Private Credit investments are held in commingled funds. These investments are mostly illiquid with distributions received over the life of the investments. They are typically not redeemed, nor do they have set redemption schedules. Two Opportunistic Public Equity investments, valued at $4.2 million, are currently being liquidated. These proceeds are expected to be received over the next 3-5 years. The remaining Opportunistic Public Equity investments are subject to a 2-year lock up with liquidity provided every December 31 with 60 days' notice. The Real Asset holdings are illiquid. Distributions are received over the life of the investments, which could equal or exceed ten years. They are not redeemed, nor do they have set redemption schedules. Private Equity investment strategies include buyout, venture capital, growth capital, and special situations. Investments in the asset class are achieved primarily through commingled fund and separate account partnerships, but may also include direct and co-investment opportunities. Private Equity investments are illiquid and distributions are received over the life of the investments, which could equal or exceed ten years. These investments are not typically redeemed, nor do they have set redemption schedules.

Absolute Return investment strategies include Equity, Credit, Macro, Emerging Markets, Quantitative, Multi-Strategy, Special Situations, and Commodities. Investments are achieved through limited partnerships. The table below provides a summary of the terms and conditions upon which the Retirement System may redeem its Absolute Return investments. Investments have the potential to become illiquid under stressed market conditions and, in certain circumstances, investors may be subject to redemption restrictions that differ from the standard terms and conditions summarized here, which can impede the return of capital according to those terms and conditions.

Absolute Return Investment Measured at NAV as of June 30, 2017

% of NAV	Redemption Frequency	Redemption Notice Period
25%*	Quarterly	65-95 days
46%	Semi-annually	95 days
10%	Annually	95 days
19%	Greater than Annually	95 days
100%		

* 5% subject to a lock-up that expires as of April 1, 2018

(6) Securities Lending

The Retirement System lends U.S. government obligations, domestic and international bonds, and equities to various brokers with a simultaneous agreement to return collateral for the same securities plus a fee in the future. The securities lending agent manages the securities lending program and receives securities and cash as collateral. Cash and non-cash collateral is pledged at 102% and 105% of the fair value of domestic securities and international securities lent, respectively. There are no restrictions on the number of securities that can be lent at one time. However, starting in the year ended June 30, 2009, the Retirement System engaged in a systematic reduction of the value of securities on loan with a target of no more than ten percent (10%) of total fund assets on loan at any time. The term to maturity of the loaned securities is generally not matched with the term to maturity of the investment of the corresponding collateral. On April 12th, 2017, the Retirement Board authorized Investment Staff to discontinue the Securities Lending Program in an orderly fashion.

The Retirement System does not have the ability to pledge or sell collateral securities unless a borrower defaults. The securities collateral is not reported on the statements of fiduciary net position. As of June 30, 2017, the Retirement System has no credit risk exposure to borrowers because the amounts the Retirement System owes them exceed the amounts they owe the Retirement System. As with other extensions of credit, the Retirement System may bear the risk of delay in recovery or of rights in the collateral should the borrower of securities fail financially. However, the lending agent indemnifies the Retirement System against all borrower defaults.

As of June 30, 2017, the Retirement System has lent $259,000 in securities and received collateral of $106,000 and $160,000 in cash and securities, respectively, from borrowers. The cash collateral is invested in a separate account managed by the lending agent using investment guidelines approved by the Retirement Board. Due to the increase in the fair value of assets held in the separately managed account, the Retirement System's invested cash collateral was valued at $201,000. The net unrealized gain of $95,000 is presented as part of the net appreciation (depreciation) in fair value of investments in the statement of changes in fiduciary net position in the year in which the unrealized gains and losses occur. The Retirement System is exposed to investment risk including the possible loss of principal value in the separately managed securities lending account due to the fluctuation in the fair value of the assets held in the account.

The Retirement System's securities lending transactions as of June 30, 2017 are summarized in the following table.

Securities Lending as of June 30, 2017

(Dollars in thousands)

Investment Type	Fair Value of Loaned Securities	Cash Collateral	Fair Value of Non-Cash Collateral
Securities on Loan for Cash Collateral			
U.S. Corporate Fixed Income	$ 103	$ 106	$ -
Securities on Loan for Non-Cash Collateral			
U.S. Corporate Fixed Income	156	-	160
	$ 259	$ 106	$ 160

The following table presents the segmented time distribution and credit risk for the reinvested cash collateral account based upon the expected maturity (in years) as of June 30, 2017.

Fair Value and Credit Rating of Cash Collateral Account as of June 30, 2017

(Dollars in thousands)

Investment Type	Credit Rating	Fair Value	Maturity Less Than 1 Year
Short Term Investment Funds	AA	$ 201	$ 201

(7) Investments in Real Assets

Real assets investments represent the Retirement System's interests in real assets limited partnerships and separate accounts. The change in these investments during the year ended June 30, 2017 is summarized as follows:

(Dollars in thousands)

	2017
Investments:	
Beginning of the year	$ 2,341,500
Capital investments	1,434,150
Equity in net earnings	26,959
Net appreciation in fair value	232,967
Capital distributions	(1,059,602)
End of the year	$ 2,975,974

(8) Benefits

Allowances and benefits incurred during the year are summarized as follows:

(Dollars in thousands)

	2017
Service retirement benefits	$ 994,408
Disability retirement benefits	184,376
Death benefits	11,163
COLA benefit adjustments	74,980
Adjustment to accrued DROP benefits	(294)
Total	$ 1,264,633

(9) Funding Policy

Employer and employee (member) contributions are mandated by the Charter. The Charter specifies that employer contributions are determined as normal cost plus an amortization of the unfunded liability over a period not to exceed 20 years. Retirement Board policy determines the actual amortization period subject to the Charter limitation. Schedules of both employer and employee contribution rates may be found in the Statistical Section of this report. A ten-year schedule of funding progress may be found in the Actuarial Section, while a ten-year schedule of actuarially determined employer contributions is in the Required Supplemental Information subsection of this Financial Section.

(10) Net Pension Liability of Employers

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

(Dollars in thousands)

	June 30, 2017
Total pension liability	$ 27,403,715
Plan fiduciary net position	$ 22,410,350
Net pension liability	$ 4,993,365
Plan fiduciary net position as a percentage of total pension liability	81.8%

(a) Actuarial Assumptions

The total pension liabilities as of June 30, 2017 were determined by an actuarial valuation as of July 1, 2016 rolled forward to June 30, 2017 using standard roll forward procedures.

The following is a summary of actuarial methods and assumptions used at the June 30, 2017 measurement date:

Inflation	3.25%
Salary Increases	3.75% plus merit component based on employee classification and years of service
Investment rate of return	7.50%, net of pension plan investment expense, including inflation

Mortality rates for active members and healthy annuitants were based upon adjusted Employee and Healthy Annuitant CalPERS mortality tables projected generationally from the 2009 base year using a modified version of the MP-2015 projection scale.

The actuarial assumptions used at the June 30, 2017 measurement date were based upon the results of a demographic experience study for the period July 1, 2009 through June 30, 2014 and an economic experience study as of July 1, 2016.

The Supplemental COLA assumption as of June 30, 2017 was developed based upon the probability and amount of Supplemental COLA for each future year. The tables below show the net assumed Supplemental COLA for members at sample years.

Assumed Future Supplemental COLA for Members Retiring Before 11/6/1996 or Hired After Prop C

July 1	Old Miscellaneous and all New Plans	Old Police & Fire, pre-7/1/75 Retirements	Old Police & Fire A8.595, A8.596, Retirements
2017	0.000%	0.000%	0.000%
2018	0.000%	0.000%	0.000%
2023	0.294%	0.160%	0.040%
2028	0.345%	0.180%	0.050%
2033+	0.375%	0.200%	0.050%

Assumed Future Supplemental COLA for Members Retiring After 11/6/1996 and Hired Before Prop C

July 1	Old Miscellaneous and all New Plans	Old Police & Fire
2017	1.500%	3.5% less assumed Basic COLA
2018+	0.750%	½ x (3.5% less assumed Basic COLA)

The long-term expected rate of return on pension plan investments was 7.50%. It was set by the Retirement Board after consideration of both expected future returns and historical returns experienced by the Retirement System. Expected future returns were determined by using a building-block method in which best-estimate ranges of expected future real rates of return were developed for each major asset class. These ranges were combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

The target allocation and best estimates of geometric long-term expected real rates of return (expected returns, net of pension plan investment expense and inflation) for each major asset class are summarized in the following table as of June 30, 2017:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Global Equity	40.0%	5.3%
Fixed Income	20.0%	1.6%
Private Equity	18.0%	6.5%
Real Assets	17.0%	4.6%
Hedge Funds/Absolute Return	5.0%	3.6%
	100.0%	

(b) Discount Rate

The discount rate used to measure the total pension liability at June 30, 2017 was 7.50%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will continue to be made at the rates specified in the Charter. Employer contributions were assumed to be made in accordance with the contribution policy in effect for the July 1, 2014 actuarial valuation. While the contributions and measure of actuarial liability in the funding valuation do not anticipate any future Supplemental COLAs, the projected contributions for the determination of the discount rate include the anticipated future amortization payments on future Supplemental COLAs for current members when they are expected to be granted. The projection of benefit payments to current members for determining the discount rate includes the payment of anticipated future Supplemental COLAs.

As of June 30, 2017, the System's fiduciary net position was projected to be available to make projected future benefit payments for current members until FY 2095-96 when only a portion of the projected benefit payments are expected to be made from the projected fiduciary net position. Projected benefit payments are discounted at the long-term expected return on assets of 7.50% to the extent the fiduciary net position is available to make the payments and at the municipal bond rate of 3.58% to the extent that they are not available. The single equivalent rate used to determine the total pension liability as of June 30, 2017 rounded to four decimals is 7.50%.

The municipal bond rate of 3.58% used to determine the above discount rate represents the yield available at June 30, 2017 on the Bond Buyer 20-Bond GO Index.

(c) Sensitivity of the net pension liability to changes in the discount rate

The following presents the net pension liability, calculated using the discount rate of 7.50%, as well as what the total net pension liability would be if it were calculated using a discount rate that is one percentage-point lower (6.50%) or one -percentage-point higher (8.50%) than the current rate:

Sensitivity of the net pension liability to changes in the discount rate

(Dollars in thousands)

	Net Pension Liability June 30, 2017
1% Decrease	$ 8,554,436
Current Discount Rate	$ 4,993,365
1% Increase	$ 2,046,840

(d) Money Weighted Rate of Return

For the year ended June 30, 2017, the annual money-weighted rate of return on pension plan investments, net of investment expenses, adjusted for the changing amounts actually invested, was 13.52%.

(11) Postemployment Healthcare Plan

(a) Health Care Benefits

Health care benefits of the Retirement System's employees, retired employees and their beneficiaries are financed by the City and County through the City and County of San Francisco Health Service System (Health Service System). OPEB expense for these Retirement System employees is included in other administrative expenses. The City and County issues a publicly available financial report that includes the complete note disclosures and required supplementary information related to the City and County's postemployment health care obligations. The report may be obtained by writing to the City and County of San Francisco, Office of the Controller, 1 Dr. Carlton B. Goodlett Place, Room 316, San Francisco, California 94102, or by calling (415) 554-7500.

(12) Contingencies

Proposition C, a pension reform Charter amendment approved by voters in November 2011, included changes in the calculation of certain supplemental cost of living adjustments and was intended to reduce pension costs. These Proposition C changes in the calculation of certain supplemental cost of living adjustments were the subject of litigation and a decision of the California Court of Appeals. The California Court of Appeals held that the changes to the supplemental cost of living adjustments in Proposition C could not be applied to retirees who retired after November 1996. That decision was appealed to the California Supreme Court. The California Supreme Court denied review of the Court of Appeals decision. On October 25, 2015, the San Francisco Superior Court entered an amended judgment consistent with the Court of Appeals decision.

After due consideration and in consultation with Board legal counsel, at its July 2016 regular Board meeting, the Retirement Board determined, in light of the conclusions recited in the Court of Appeals decision, Proposition C should be interpreted to provide payment of the supplemental cost of living adjustments to pre-1996 retirees without a "fully funded" precondition to payment. On September 19, 2016, the City and County of San Francisco and the Controller filed an action against the Retirement Board and the Retirement System's Executive Director, seeking to permanently enjoin the Retirement System from paying supplemental COLA benefits to pre-1996 retirees on the same basis that those benefits have been paid to the post-1996 retirees in accordance with the Court's decision in Protect Our Benefits v. City and County of San Francisco. The San Francisco Superior Court granted the City's request for a permanent injunction. The Retirement Board and the Retirement System's Executive Director have appealed that decision, and it is pending before the California Court of Appeals. The amount of the retroactive adjustments to be paid to eligible retirees and beneficiaries if the Court of Appeals overturns the Superior Court decision cannot be reasonably estimated at this time.

REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Changes in Net Pension Liability

(Dollars in thousands)

Year ended June 30	2017	2016	2015	2014
Total pension liability				
Service cost	$ 644,277	$ 567,576	$ 523,644	$ 509,200
Interest	1,924,206	1,669,996	1,621,582	1,542,266
Changes of benefit terms	0	1,293,714	0	0
Differences between expected and actual experience	57,911	(119,270)	(197,981)	0
Changes of assumptions	88,180	1,087,309	216,845	(73,315)
Benefit payments, including refunds of member contributions	(1,278,140)	(1,256,146)	(1,131,030)	(1,072,526)
Net change in total pension liability	**$ 1,436,434**	**$ 3,243,179**	**$ 1,033,060**	**$ 905,625**
Total pension liability—beginning	**25,967,281**	**22,724,102**	**21,691,042**	**20,785,417**
Total pension liability—ending, (a)	**$ 27,403,715**	**$ 25,967,281**	**$ 22,724,102**	**$ 21,691,042**
Plan fiduciary net position				
Contributions—employer	$ 551,809	$ 526,805	$ 592,643	$ 532,882
Contributions—employee	316,844	322,764	301,682	289,020
Net investment income	2,683,468	150,190	763,429	3,175,431
Benefit payments, including refunds of member contributions	(1,278,140)	(1,256,146)	(1,131,030)	(1,072,526)
Administrative expenses	(18,134)	(17,179)	(19,262)	(15,745)
Net change in plan fiduciary net position	**$ 2,255,847**	**$ (273,566)**	**$ 507,462**	**$ 2,909,062**
Plan fiduciary net position—beginning	**20,154,503**	**20,428,069**	**19,920,607**	**17,011,545**
Plan fiduciary net position—ending, (b)	**$ 22,410,350**	**$ 20,154,503**	**$ 20,428,069**	**$ 19,920,607**
Net pension liability—ending, (a) – (b)	**$ 4,993,365**	**$ 5,812,778**	**$ 2,296,033**	**$ 1,770,435**

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

Schedule of Net Pension Liability
(Dollars in thousands)

Year ended June 30	6/30/2017	6/30/2016	6/30/2015	6/30/2014
Total pension liability	$ 27,403,715	$ 25,967,281	$ 22,724,102	$ 21,691,042
Plan fiduciary net position	(22,410,350)	(20,154,503)	(20,428,069)	(19,920,607)
Net pension liability	$ 4,993,365	$ 5,812,778	$ 2,296,033	$ 1,770,435
Plan fiduciary net position as a percentage of the total pension liability	81.8%	77.6%	89.9%	91.8%
Covered payroll	$ 3,041,818	$ 2,836,498	$ 2,642,752	$ 2,507,162
Net pension liability as a percentage of covered payroll	164.2%	204.9%	86.9%	70.6%

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

Schedule of Employer Contributions
(Dollars in thousands)

Year Ended June 30	Actuarially Determined Contribution (ADC)	Contributions in Relation to the ADC	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a Percentage of Covered Payroll
2008	134,060	134,060	-	2,376,221*	5.6%
2009	119,751	119,751	-	2,457,196*	4.9%
2010	223,614	223,614	-	2,544,939*	8.8%
2011	308,823	308,823	-	2,398,823*	12.9%
2012	410,797	410,797	-	2,360,413*	17.4%
2013	442,870	442,870	-	2,448,734	18.1%
2014	532,882	532,882	-	2,507,162	21.3%
2015	592,643	592,643	-	2,642,752	22.4%
2016	526,805	526,805	-	2,836,498	18.6%
2017	551,809	551,809	-	3,041,818	18.1%

*Covered compensation from actuarial projection.

Schedule of Money-Weighted Rate of Return

Year Ended June 30	Money-Weighted Rate of Return
2008	(4.09)%
2009	(22.28)%
2010	14.53%
2011	22.65%
2012	0.81%
2013	13.91%
2014	19.10%
2015	4.03%
2016	0.96%
2017	13.52%

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

Note to Schedules of Changes in Net Pension Liability and Schedules of Net Pension Liability

The total pension liability contained in the schedule was determined by the Retirement System's actuary, Cheiron, Inc. The net pension liability is measured as the total pension liability less the amount of the fiduciary net position of the Retirement System. The June 30, 2016 total pension liability includes an adjustment for the October 2015 State Appeals Court determination that the "full funding" requirement for Supplemental COLAs of Proposition C does not apply to members who retired on or after November 6, 1996 and were hired prior to January 7, 2012. The restoration of and the resulting increased expectation of future Supplemental COLAs are accounted for as a change in benefits in the measurement of the total pension liability as of June 30, 2016.

A summary of assumptions may be found in Note 10 to the financial statements. A complete description of methods and assumptions may be found in the Retirement System's GASB 67/68 Report for the corresponding fiscal years. The discount rates were 7.50% as of both June 30, 2016 and 2017, 7.46% as of June 30, 2015, 7.58% as of June 30, 2014, and 7.52% as of June 30, 2013.

Note to Schedule of Employer Contributions for FY 2016-2017

Valuation date	July 1, 2015
Timing	Actuarially determined contribution rates are calculated based on the actuarial valuation one year prior to the beginning of the plan year
Actuarial cost method	Entry age normal
Asset valuation method	5-year recognition of the difference between the actual investment earnings and the expected return on the actuarial value of assets
Amortization method	Benefit changes made prior to July 1, 2014 are amortized over closed 20-year periods as a level percentage of payroll. The UAL as of July 1, 2013 not attributable to benefit changes was amortized over a closed 19-year period starting July 1, 2014. Assumption changes and experience gains and losses are amortized over a closed 20-year period as a level percentage of payroll. Increases in the UAL due to Supplemental COLAs are amortized over a closed 5-year period.
Discount rate	7.50%
Salary increases	3.75% plus merit component based on employee classification and years of service
Amortization payment growth rate	3.75%
Price inflation	3.25%
Mortality	For healthy annuitants, the sex distinct 2009 CalPERS healthy annuitant mortality table, adjusted 1.014 for females and 0.909 for males. For active members, the sex distinct 2009 CalPERS employee mortality tables, adjusted 0.918 for females and 0.948 for males. All rates are projected generationally from the base year using a modified version of the MP-2015 projection scale.

A complete description of the methods and assumptions used to determine contribution rates for the fiscal year ending June 30, 2016 can be found in the July 1, 2014 actuarial valuation report.

Table of Key Assumptions for Schedule of Employer Contributions

Year Ended June 30	Valuation Date	Investment return	Salary Increase/ Amortization Growth	Mortality	Change in Funding Methods or Assumption from Prior Year
2008	7/1/2006	8.00%	4.50%	1994 GAM	None
2009	7/1/2007	8.00%	4.50%	1994 GAM	None
2010	7/1/2008	7.75%	4.50%	1994 GAM	Investment return
2011	7/1/2009	7.75%	4.50%	1994 GAM	None
2012	7/1/2010	7.75%	4.00%	RP2000 Mortality projected with Scale AA	Wage inflation and demographic assumptions including salary merit increases based upon experience study
2013	7/1/2011	7.66%	3.91%	RP2000 Mortality projected with Scale AA	Investment return and wage inflation assumptions
2014	7/1/2012	7.66%	3.83%	RP2000 Mortality projected with Scale AA	Investment return and wage inflation assumptions
2015	7/1/2013	7.66%	3.83%	RP2000 Mortality projected with Scale AA	None
2016	7/1/2014	7.50%	3.75%	RP2000 Mortality projected with Scale AA	Investment return and wage inflation assumptions
2017	7/1/2015	7.50%	3.75%	Adj. 2009 CalPERS Mortality Tables projected generationally with mod. MP-2015	Demographic assumptions including rates of retirement, termination, refund, disability and mortality and salary merit based upon experience study

Complete descriptions of the methods and assumptions used to determine contribution rates can be found in each applicable actuarial valuation report.

Salary increase assumptions in above table are shown before the addition of merit components based upon employee classification and years of service.

Summaries of plan provisions used in each valuation can be found in each applicable actuarial valuation report.

OTHER SUPPLEMENTARY INFORMATION

Pension Fund Net Investment Income

Fiscal Year 2016-17

(Dollars in thousands)

	Realized Gain/Loss	Unrealized Gain/Loss	Total
Income			
Interest Earned			$ 159,065
Dividends Earned			209,951
Securities Lending Income-Net			5,515
Recaptured Commission Income			44
Real Assets Income			26,959
Private Equities Income			(31,179)
Public Equity Opportunistic			(453)
Investment Expenses			(47,395)
Total Income[1]			**$ 322,507**
Net Appreciation in Fair Values			
Short-Term Securities	$ (117,050)	$ 82,922	$ (34,128)
Equities	572,481	1,101,311	1,673,792
Debt Securities	42,364	(5,086)	37,278
Real Assets	152,248	163,870	316,118
Private Equities	260,437	151,463	411,900
Absolute Returns	-0-	26,784	26,784
Other Assets	(35,395)	(35,388)	(70,783)
Total Net Appreciation	**$ 875,085**	**$ 1,485,876**	**$ 2,360,961**
Total Net Investment Income (including Net Appreciation)			**$ 2,683,468**

[1] Total investment income excludes employee and employer contributions.

Pension Fund Disbursements

Fiscal Year 2016-17

(Dollars in thousands)

Payments/Expenses	Amount
Service Retirement Payments	$ 994,408
Disability Retirement Payments	184,376
Cost of Living Adjustments	74,980
Death Allowance Payments	4,634
Death Benefits	2,586
Retired Annuitant Rolls (Option 1 Death Benefit)	3,943
DROP Program Accrued Retirement Benefits	(294)
Refunds of Contributions – Death Benefits	3,906
Refunds of Contributions – Other than Death Benefits	9,601
Administrative Expenses: Retirement Services/Administration	18,134
Total Payments & Expenses, FY 2016-17	**$ 1,296,274**
Total Payments & Expenses, FY 2015-16	**$ 1,273,325**
Increase From FY 2015-16:	**$ 22,949**

Comparison of Contributions

Employer Contributions

(Dollars in thousands)

Member Plan	2016-17	2015-16	2014-15
Miscellaneous Plans	$ 465,671	$ 442,184	$ 494,353
Police Plans	49,640	49,164	57,950
Firefighter Plans	36,498	35,457	40,340
Total	**$ 551,809**	**$ 526,805**	**$ 592,643**

Employee Contributions

(Dollars in thousands)

Member Plan	2016-17	2015-16	2014-15
Miscellaneous Plans	$ 262,647	$ 266,929	$ 248,084
Police Plans	31,085	32,345	30,977
Firefighter Plans	23,112	23,490	22,621
Total	**$ 316,844**	**$ 322,764**	**$ 301,682**

Comparison of Actual Administrative Expenditures

Retirement Services & Administration Divisions
(Dollars in thousands)

Description of Expenditures	2016-17	2015-16	2014-15
Personnel Services	$ 10,329	$ 10,954	$ 10,879
Equipment Purchase	131	96	344
Materials and Supplies	101	135	228
Services of Other Departments	3,320	3,495	5,494
Other Services	2,705	2,499	2,317
Total	**$ 16,586**	**$ 17,179**	**$ 19,262**

Investment Division
(Dollars in thousands)

Description of Expenditures	2016-17	2015-16	2014-15
Personnel Services	$ 5,142	$ 3,756	$ 2,442
Equipment Purchase	0	169	400
Materials and Supplies	8	9	9
Services of Other Departments	1,782	2,733	1,587
Other Services	40,463	40,359	40,473
Total	**$ 47,395**	**$ 47,026**	**$ 44,911**

Investment Section

STATEMENT FROM THE CHIEF INVESTMENT OFFICER

Overview

The Retirement System's investment strategies and its asset allocation have changed considerably over the years as the public and private equity, venture capital, real estate, natural resources, and bond markets have constantly evolved. For example, the number of publicly traded U.S. companies in the past 20 years has declined sharply from about 8,000 to around 4,000. Also, over the past 30 years interest rates have declined significantly, while private equity and other new asset classes emerged.

Even as the markets are constantly evolving, the Retirement System's investment objective has essentially remained the same: to maximize long-term rates of return on investments within prudent guidelines. To achieve its investment objective, in February 2015 the Retirement Board approved the following asset allocation policy:

Asset Class	Policy Target
Public Equity	40.0%
Fixed Income	20.0%
Private Equity	18.0%
Real Assets	17.0%
Absolute Return	5.0%
Cash	0.0%

Total Plan

For the fiscal year ended June 30, 2017, SFERS returned 13.81%. Comparatively, the median public pension with $1 billion or more in assets returned 12.66%.

Over the past three years our investments returned 6.19% annualized, while over the past five years they have gained 9.98% per year. The past ten years our portfolio has returned 5.40% while over the past twenty years it has gained 7.46%, both annualized.

In FY 2016-17 we ranked in the 22nd percentile versus our peers, and in the past three and five years we have ranked in the top 3% and 6%, respectively. Over the past ten years, our returns rank in the 20th percentile.

Asset Classes

Public Equity

The public equity portfolio consists of investments in publicly traded stocks in the U.S., international developed markets, and emerging markets. Public equity investments provide long-term capital appreciation as well as liquidity.

Over the past year our public equity portfolio gained a robust 20.15%. Our public equity policy index returned 19.02%, meaning we topped our benchmark by 1.13%.

Over the past five years our public equity investments have gained 11.44% annualized while our policy index returned 10.75%, an outperformance of 0.69% per year.

In the past ten years our public equity portfolio has returned only 4.27% annualized, and our policy index has gained just 4.36% per year. The disappointing ten-year returns are due to the large loss incurred during the Global Financial Crisis, which took place from August 2007 to February 2009.

Fixed Income

The fixed income portfolio consists of investments in publicly traded and privately held bonds. Fixed income investments provide regular income, protection of capital in down markets, and liquidity.

In the fiscal year ended June 30, 2017 our fixed income portfolio returned 3.44%, solidly outperforming the median public pension return of 0.91%. Bond returns have been held down due to ultra-low interest rates, which government policy makers have kept very low to boost economic growth.

Over the past five years, our fixed income portfolio has returned 4.40% annualized, solidly outperforming the median large public pension plan which returned 3.31% and ranking in the 24th percentile versus our peers. Over the past ten years, our bond investments have gained 5.06% annualized.

Private Equity

Core private equity strategies include buyouts, venture capital, growth capital and special situations. Other investment strategies that can be pursued opportunistically include co-investments, secondary transactions, and other credit strategies such as mezzanine financing. Private equity provides long-term capital appreciation.

In the fiscal year ended June 30, 2017, our private equity portfolio returned 12.78%, solidly outperforming our peers who returned 9.87%. Over the past three years our private equity investments have ranked in the 14th percentile, returning 12.99% annualized.

In the past five years, our private equity portfolio returned 14.40% annualized and ranking in the 11th percentile compared to our peers. For the past ten years, our private equity investments have returned 10.83% annualized, ranking in the top 8% versus other large pension plans.

Real Assets

The real assets portfolio consists of private real estate and natural resources investments. Real assets investments provide income from property lease payments or the extraction / harvesting of commodities, long-term capital appreciation from rising property, land and asset values, and inflation protection.

For the fiscal year ended June 30, 2017 our real assets portfolio gained 14.77%, substantially outperforming our peers whose median return was 6.27%.

For the past five years, our real assets portfolio has also posted very strong returns, earning 12.97% annualized. For the past ten years, our real assets investments have gained 5.55% annualized, outperforming our peers who returned 4.19% per year.

Our private equity and real assets returns consistently rank near the top versus our peers across all time periods.

Absolute Return

Our Absolute Return strategy was approved in February 2015 and SFERS began making investments in October 2016. The strategy includes investing long and short in equities, bonds, currencies, interest rates, and macroeconomic trends and forecasts. Absolute return provides higher returns than bonds, better protection in down markets than stocks, attractive returns in relation to its volatility, and better liquidity than private investments. In its first nine months, the Absolute Return portfolio returned 6.47%, outperforming its benchmark which returned 4.12% and ranking in the 27th percentile versus other large pension plans.

Investment Returns – June 30, 2017

(Net of fees and expenses)

Description	1-Year			5-Years			10-Years			20-Years		
	Returns	Peer Rank	Quartile Rank	Returns	Peer Rank	Quartile Rank	Returns	Peer Rank	Quartile Rank	Returns	Peer Rank	Quartile Rank
Total Plan	**13.81%**	**22**	**1**	**9.98%**	**6**	**1**	**5.40%**	**20**	**1**	**7.46%**	**1**	**1**
Median Peers	12.66%			8.58%			4.76%			633%		
Over (Under) vs. Peers	1.15%			140%			0.64%			1.13%		
Public Equity	**20.15%**	**62**	**3**	**11.44%**	**58**	**3**	**4.27%**	**75**	**3**	**6.72%**	**31**	**2**
Median Peers	20.64%			11.60%			4.88%			6.30%		
Over (Under) vs. Peers	-0.49%			-0.16%			-0.61%			0.42%		
Fixed Income	**3.44%**	**64**	**3**	**4.40%**	**24**	**1**	**5.06%**	**62**	**3**	**5.99%**	**13**	**1**
Median Peers	4.67%			3.31%			5.37%			5.85%		
Over (Under) vs. Peers	-1.23%			1.09%			-031%			0.17%		
Absolute Return (1)	**6.47%**	**27**	**2**	N/A			N/A			N/A		
Median Peers	5.06%											
Over (Under) vs. Peers	1.41%											
Private Equity	**12.78%**	**28**	**2**	**14.40%**	**11**	**1**	**10.83%**	**8**	**1**	**14.58%**	**1**	**1**
Median Peers	9.87%			9.99%			7.31%			11.66%		
Over (Under) vs. Peers	2.91%			4.41%			3.52%			2.92%		
Real Assets	**14.77%**	**1**	**1**	**12.97%**	**5**	**1**	**5.55%**	**17**	**1**	**10.57%**	**1**	**1**
Median Peers	6.27%			10.63%			4.15%			7.52%		
Over (Under) vs. Peers	8.50%			2.34%			1.40%			3.05%		

Note 1: SFERS Absolute Return Program began October 1, 2016. The returns noted for the program are for the period October 1, 2016 to June 30, 2017.

Source: Northern Trust for SFERS returns; NEPC for Median Peers Returns and Rank by Peer Group and Quartile Group

Discussion of Returns

Our investment return of 13.81% this past year was boosted by many positive factors: solid economic growth in the U.S., improving economic conditions in Developed International and Emerging Markets, strong earnings growth, benign inflation, low interest rates, low unemployment, and positive consumer sentiment. Returns were especially strong in our international equity portfolio, which gained 21.27%, and our U.S. equity portfolio also did very well, returning 19.07%. While public equity returns were especially strong, all risk-oriented assets also did very well, with private equity gaining 12.78% and real assets returning 14.77%.

While equity investments had very strong returns in FY 2016-17, bond returns were very low, as they have been for the past several years, due to record low bond yields. Since the Global Financial Crisis, the Federal Reserve has kept interest rates at historic lows in an effort to boost lending, consumer demand, and business investment.

Investment Team

The investment team consists of 17 investment professionals with uniquely deep experience as well as diverse backgrounds. Four of the five members of the senior investment team have 20 or more years of experience, and all five have more than 10 years of experience. Further, 14 members of the investment division have at least 10 years of experience, and nine have at least 20 years of experience.

The team also has a comprehensive background in terms of its experience and professional accreditations. In the aggregate the investment team holds 18 graduate degrees and 12 advanced certifications. Their backgrounds include prior tenures at organizations such as the Albourne Partners, Dartmouth College, the Federal Reserve Bank of New York, Goldman Sachs, Hall Capital, Intel Corporation, Makena Capital, the Missouri State Employees Retirement System, New York State Common, and the University of California.

Recent Initiatives

As the financial markets have become more complex and the pace of technology and innovation has accelerated, in the past three years the Retirement Board and investment staff have implemented a series of initiatives, including the following:

- Reduced our allocation to long-only public equity, to increase diversification and reduce the potential for a large loss
- Reduced our allocation to bonds, due to low yields and low expected future returns
- Increased our allocation to private equity, to increase our expected returns
- Increased our allocation to real assets, to further broaden diversification
- Initiated an allocation to absolute return, to further diversify plan assets, reduce the potential for a large loss, and increase the plan's risk-adjusted returns
- Designed and implemented a differentiated investment strategy for each asset class, with an objective to increase portfolio returns
- Implemented a comprehensive analytics platform, to better evaluate our portfolio exposures and risks, liquidity, and attribution of returns, as well as conduct more comprehensive historical, what-if, and scenario-based modeling

The overall objective of these initiatives is to maximize total plan returns while prudently taking investment risk.

Regards,

William J. Coaker, Jr.
Chief Investment Officer

SUMMARY OF INVESTMENTS

As of June 30, 2017, approximately 5.7% of SFERS' trust assets were managed internally, consisting of $1.3 billion in domestic equities. The balance of the portfolio was managed by external investment management firms that specialized in specific asset classes – including global equities, global fixed-income, private equity, real assets and absolute return.

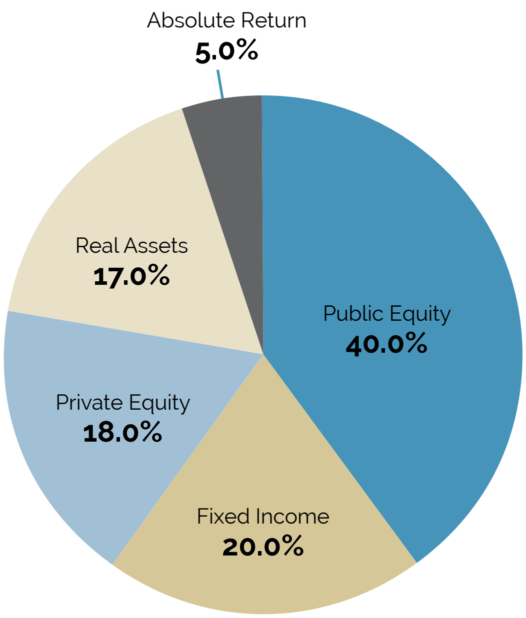
	2017		2016	
Asset Class	**Market Value *($thousands)***	**% of Portfolio**	**Market Value *($thousands)***	**% of Portfolio**
Public Equity	**$ 10,680,079**	**48.0%**	**$ 9,486,642**	**47.6%**
Fixed Income	**$ 4,457,944**	**20.0%**	**$ 4,654,925**	**23.3%**
Absolute Return	**$ 577,978**	**2.6%**	**$ 0**	**0.0%**
Private Equity	**$ 3,297,907**	**14.8%**	**$ 2,695,048**	**13.5%**
Real Assets	**$ 3,108,591**	**14.0%**	**$ 2,344,822**	**11.8%**
Cash	**$ 125,415**	**0.6%**	**$ 760,536**	**3.8%**
Total Investment Portfolio	**$ 22,247,914**	**100.0%**	**$ 19,941,973**	**100.0%**

Investment portfolio totals are net of management fees and expenses and therefore does not track to pension net assets reported in SFERS audited financial statements.

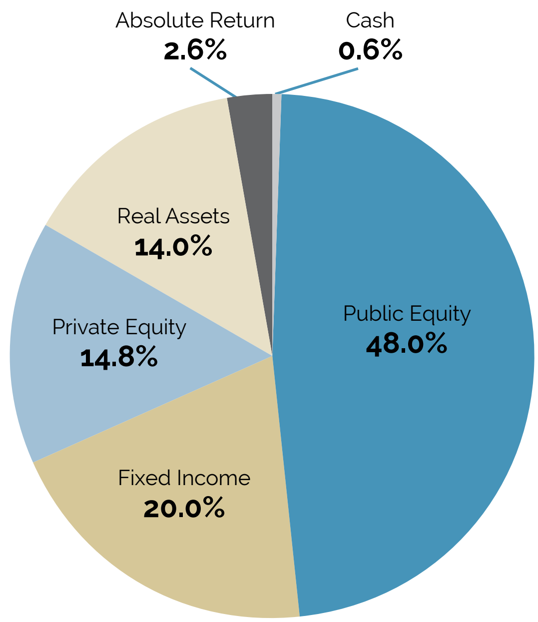
Asset Allocation

The Retirement Board has approved the asset allocation policy as noted below. The charts also show the plan's actual asset allocation at June 30, 2017:

Approved Asset Allocation Policy



Asset Allocation – June 30 2017



INVESTMENT PORTFOLIO PERFORMANCE

For the fiscal year ended June 30, 2017, the investment portfolio of the Retirement System returned 13.81%. The table below shows annualized returns for major categories of investments compared to benchmarks for various return periods:

Annualized Returns for the Periods ending 6/30/2017

(Net of fees and expenses)

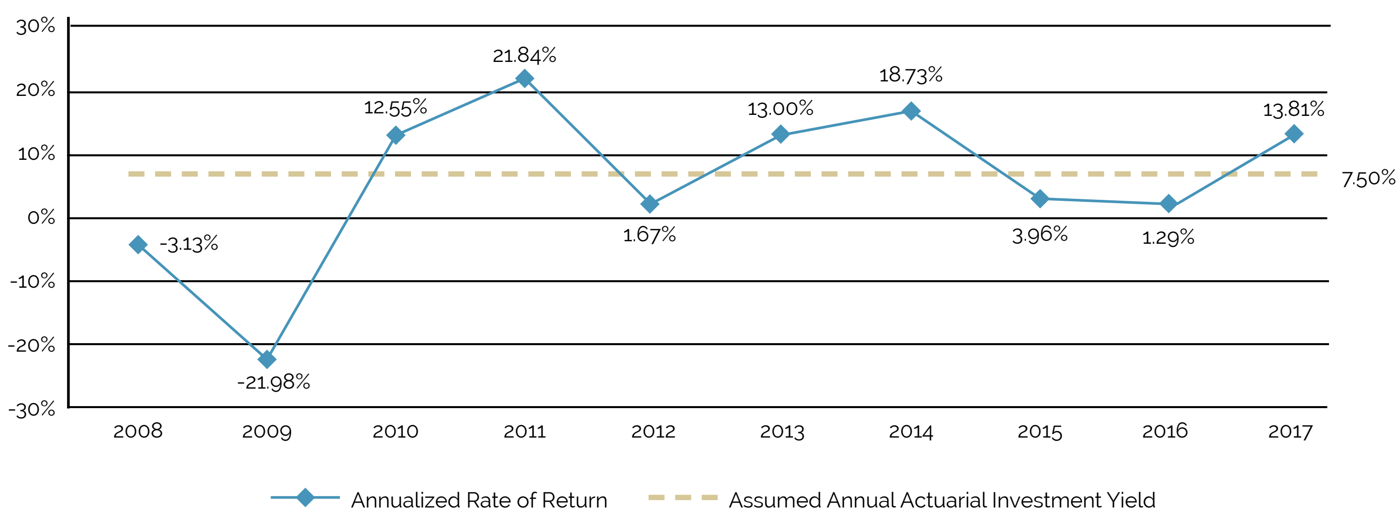
Description	1-Year	3-Years	5-Years	10-Years	20-Years
Global Equity	**20.15%**	**5.27%**	**11.44%**	**4.27%**	**6.46%**
Benchmark: Global Equity Policy[1]	19.02%	4.87%	10.75%	4.36%	6.22%
Global Fixed Income	**3.44%**	**2.90%**	**4.40%**	**5.06%**	**5.99%**
Benchmark: Fixed Income Policy[2]	0.91%	2.76%	2.73%	4.72%	5.43%
Absolute Return[3]	**6.47%**	N/A	N/A	N/A	N/A
Benchmark: Absolute Return Policy[4]	4.12%				
Private Equity	**12.78%**	**12.99%**	**14.40%**	**10.83%**	**14.58%**
Benchmark: Alternative Investments Policy[5]	23.68%	15.05%	20.29%	12.52%	12.78%
Real Assets	**14.77%**	**12.79%**	**12.97%**	**5.55%**	**10.57%**
Benchmark: Real Assets Policy[6]	8.00%	8.00%	8.00%	5.73%	9.82%
Total Fund	**13.81%**	**6.19%**	**9.98%**	**5.40%**	**7.46%**
Weighted Policy Benchmark[7]	13.63%	6.42%	9.95%	6.18%	7.08%

Source: BNY Mellon

1. Global Equity Policy consists of 100% MSCI ACWI IMI (ND) from 09/30/08 through current, 100% MSCI ACWI Ex-US (ND) from 01/31/2001 through 09/30/2008, 100% MSCI ACWI Ex-US (GD) previous to 01/31/2001.
2. Total Fixed Income Policy consists of 100% BC Universal from 6/30/07 through current, 75% BC Universal/25% BC Global Aggregate from 9/30/05 to 6/30/07, 80%/20% from 9/30/02 to 9/30/05, 100% BC Universal 9/30/00 to 9/30/02, and 100% BC Aggregate previous to 9/30/00.
3. Absolute Return performance begins 10/01/2016.
4. Absolute Return Policy consists of the 90 Day T-Bill + 500bps.
5. Alt. Inv. Policy consists of the S&P500 + 500 bps 1/1/03 through current; + 600 bps through 12/31/02.
6. The Real Assets Policy consists of NPI (NCREIF Property Index) +1.5% from inception to 09/30/2011 and a flat 8% thereafter.
7. The current SFERS weighted policy consists of 47% MSCI ACWI IMI (ND), 25% BC US Universal, 12% SFERS Real Estate Benchmark and 16% SFERS Alternative Investment Benchmark.

Annual Rates of Return Last Ten Years

Periods ending June 30



SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

July 1, 2016 Actuarial Valuation

Actuarial assumptions and methods are adopted by the Retirement Board with input from the consulting actuary. Key economic assumptions are reviewed annually, while demographic assumptions are studied every five years. The current demographic assumptions are based upon the June 2015 Demographic Experience Study for the period covering July 1, 2009 through June 30, 2014. The study covered rates of retirement, termination, refund, disability, and mortality in addition to merit salary increases, final year salary increase, administrative expenses, and family composition.

Actuarial Asset Valuation Method for Funding Policy

The assets were valued using a 5-year phase-in of investment return greater than or less than the assumed investment return. This actuarial value is calculated by recognizing 20% of each of the past five years of actual investment experience relative to the expected return on the actuarial asset value. The expected return on actuarial value of assets is determined using actual cash flows and the assumed investment return. The balance of the actual investment experience is recognized in a similar fashion in future years.

This asset smoothing method started with the market value as of July 1, 2004. The Retirement Board adopted the method upon recommendation from the actuarial audit of 2005.

Actuarial Cost Method

The individual Entry Age Normal actuarial cost method was used for active employees, whereby the normal cost is computed as the level annual percentage of pay required to fund the retirement benefits between each member's date of hire and assumed termination of employment. The actuarial liability is the difference between the present value of future benefits and the present value of future normal costs. Actuarial gains or losses which arise from the deviation of actual experience from expected experience lead to decreases or increases in the unfunded actuarial liability.

This cost method meets the Charter requirement that normal cost be determined as a level percent of pay.

Amortization Method for Funding Policy

The Charter specifies that the amortization period shall not exceed 20 years. The Retirement Board's funding policy specifies the period over which different components of the unfunded actuarial liability must be amortized.

The Retirement Board adopted the following amortization methods beginning with the July 1, 2014 actuarial funding valuation:

- 20-year closed periods for net actuarial gains and losses
- 20-year closed periods for assumption changes
- 15-year closed periods for Charter amendments (five-year closed periods for retirement incentive programs and amendments for inactive members)

- 5-year closed periods for supplemental COLAs
- The portion of the unfunded actuarial liability not attributable to Charter amendments as of July 1, 2013 was re-amortized over a closed 19-year period as of July 1, 2014.

Charter amendments prior to July 1, 2014 are amortized over 20 years from the date they were first recognized in the valuation. Prior to July 1, 2014, the portion of the unfunded actuarial liability not attributable to Charter amendments was amortized over a rolling 15-year period.

The amortization payment on the July 1, 2015 assumption changes is being phased in over a five-year period.

As of July 1, 2016, the unfunded actuarial liability attributable to the 2013 supplemental COLA is amortized over a closed 17-year period; and the unfunded actuarial liability attributable to the 2014 supplemental COLA is amortized over a closed five-year period.

All amortization schedules are determined on a level percent of pay basis which means that for the duration of the amortization schedule, payments increase each year at the assumed wage inflation rate.

Investment Return Assumption

SFERS' assets are assumed to earn 7.50% net of investment expenses. This assumption was adopted beginning with the July 1, 2014 valuation.

Supplemental Cost-of-Living Increases

No future supplemental COLAs are assumed in the actuarial funding valuation. An assumption for future supplemental COLAs is included in the financial reporting valuation; see Note 10 to the Basic Financial Statements found in the Financial Section.

The July 1, 2016 valuation reflects changes to the supplemental COLAs resulting from the October 25, 2015 San Francisco Superior Court judgment. This judgment affirmed that the voter-approved Proposition C Charter amendments from November 2011 could not be applied to certain retirees. As a result, retroactive supplemental COLAs were granted to those retirees as of July 1, 2013 and July 1, 2014. The bulk of the retroactive benefit payments were paid in January and February of 2016 with ongoing amounts commencing at the same time the retroactive amounts were paid.

Future Interest Crediting Rate on Member Contributions

4.5% compounded annually.

Administrative Expense Assumption

There is a 0.60% of Payroll assumption included in the normal cost rates for administrative expenses.

Cost-of-Living Increase in Benefits

Old Plans - Police and Fire, Charters 8.559 and 8.585	4.40% per year
Old Plans - Police and Fire, Charters 8.595 and 8.596	3.30% per year
Old Plans - Police and Fire, pre-7/1/75 DOR	2.70% per year
Old Plans - Miscellaneous	2.00% per year
New Plans - Police, Fire and Miscellaneous	2.00% per year

Salary Increase Rate

- Wage inflation component: 3.75%
- The additional merit component at selected years of service:

Years of Service	Police	Fire	Muni Drivers	Craft	Misc.
0	8.00%	15.00%	15.00%	3.50%	5.25%
5	3.50	2.25	0.00	0.55	1.25
10	1.80	1.60	0.00	0.15	0.50
15	1.50	1.50	0.00	0.00	0.25

Extra covered wages in the last year before service retirement are assumed to be as follows:

Safety	3.5% per year
Muni Drivers	4.5% per year
Craft Workers	4.5% per year
Other Miscellaneous	2.5% per year

Member Refunds

Non-vested terminated members are assumed to receive a refund of their contributions with interest. The rates of refund for terminated vested members in the year of termination are shown below at selected ages.

	Rates of Refund for Vested Terminated Members	
Age	Police & Fire	Misc.
Under 25	50.0%	60.0%
30	30.0	37.5
40	15.0	22.5
50	0.0	5.0

In estimating refund amounts, it is assumed that employee contribution rates are, on average, not changed by the cost-sharing provisions of the November 2011 Proposition C.

Family Composition

The percentage assumed to be married (including assumption for Domestic Partners, 1994 Proposition H) is shown in the table below. Spouses of male members are assumed to be four years younger than the member and spouses of female members are assumed to be two years older than the member.

	Percentage Married
Safety Males	85%
Safety Females	55
Miscellaneous Males	75
Miscellaneous Females	52

Rates of Termination of Employment

Sample rates of termination by age and service for Miscellaneous (excluding Muni drivers and Craft) members are shown below:

	Years of Service		
Age	0	3	5+
20	37.5%	12.0%	6.5%
30	24.0	9.0	5.5
40	17.5	6.0	3.0
50	15.0	4.5	2.6
60	15.0	4.5	5.0

Sample rates of termination by service for Police, Fire, Muni Drivers and Craft members are shown below:

Service	Police	Fire	Muni Drivers	Craft
0	10.00%	4.00%	12.00%	10.00%
5	0.75	1.50	3.25	3.25
10	0.75	0.75	3.00	1.75
15	0.50	0.50	3.00	1.75
20	0.50	0.50	3.00	1.75

20% of terminating employees are assumed to subsequently work for a reciprocal employer and receive pay increases equal to the wage inflation assumption.

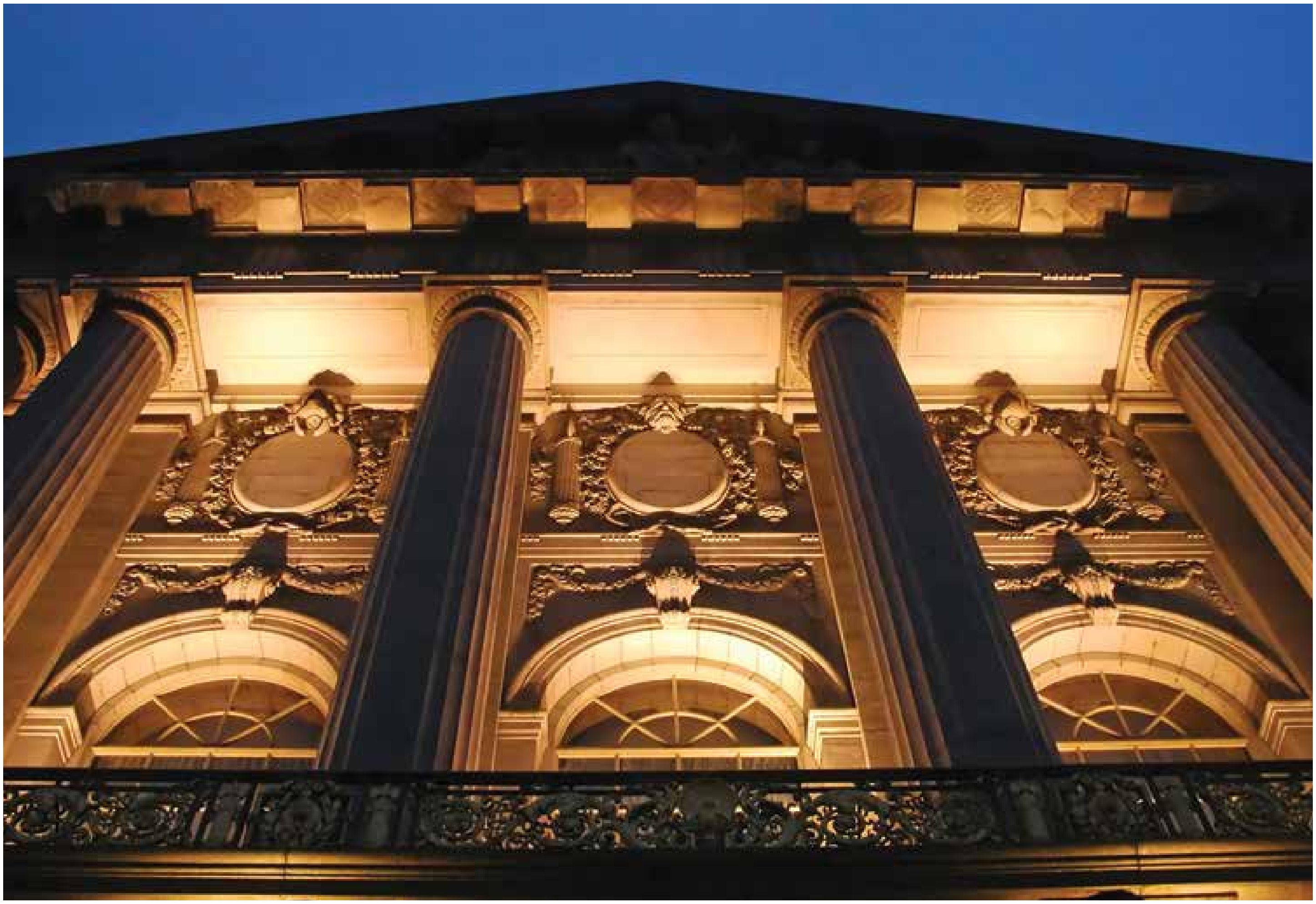
In estimating termination benefits for Miscellaneous members, it is assumed that employee contribution rates are, on average, not changed by the cost-sharing provisions of the November 2011 Proposition C.

Rates of Disability

Sample disability rates of active participants are provided below:

Age	Police	Fire	Muni Drivers	Craft	Misc. Females	Misc. Males
30	0.05%	0.06%	0.01%	0.01%	0.01%	0.01%
40	0.16	0.38	0.11	0.12	0.10	0.08
50	0.79	1.20	0.75	0.44	0.55	0.30
60	6.10	12.75	0.00	0.00	0.00	0.00

100% of safety and 0% of miscellaneous disabilities are assumed to be duty related. If projected disability occurs prior to service retirement eligibility, the level of duty disability is assumed to 55% of pay for Police and 55% of pay for Fire.



Rates of Retirement

Rates of retirement are based upon years of service and age. Members hired on or after January 7, 2012 (Tier III Plans) reach the highest benefit multiplier at later ages than the other members and have separate assumed rates of retirement. Sample retirement rates for active participants are provided in the following two tables:

Old Plans and New Plans' Tiers I and II

	Years of Service		
Age	19 or less (24 or less for Safety)	20-29 (25-29 for Safety)	30 or more
Muni Drivers			
55	0.0000	0.0500	0.1500
60	0.1000	0.1000	0.2000
65	0.2750	0.3500	0.4500
Craft			
55	0.0000	0.0400	0.0750
60	0.1000	0.1000	0.3750
65	0.1500	0.2750	0.3000
Other Misc.			
55	0.0000	0.0400	0.0550
60	0.1050	0.1150	0.3750
65	0.2375	0.3000	0.3250
Police			
55	0.0700	0.2400	0.4000
60	0.0900	0.3400	0.5000
65	1.0000	1.0000	1.0000
Fire			
55	0.0750	0.2250	0.3500
60	0.2000	0.3500	0.3500
65	1.0000	1.0000	1.0000

Tier III Plans (includes Sheriffs Plan and Miscellaneous Safety Plan)

	Years of Service		
Age	19 or less (24 or less for Safety)	20-29 (25-29 for Safety)	30 or more
Muni Drivers			
55	0.0000	0.0300	0.1000
60	0.0500	0.1000	0.1500
65	0.2500	0.3000	0.5000
Craft			
55	0.0000	0.0300	0.0500
60	0.0500	0.0750	0.2000
65	0.2000	0.3250	0.4000
Other Misc.			
55	0.0000	0.0400	0.0400
60	0.0750	0.1000	0.1500
65	0.3000	0.4000	0.4000
Police			
55	0.0700	0.2000	0.3500
60	0.0900	0.3400	0.5000
65	1.0000	1.0000	1.0000
Fire			
55	0.0750	0.1750	0.2500
60	0.2000	0.3500	0.3500
65	1.0000	1.0000	1.0000

The assumed retirement age is 55 for Safety Tier III and Miscellaneous inactive terminated vested members and for Miscellaneous actives expected to terminate. It is age 51 for other Safety inactive terminated vested members and also for Safety actives expected to terminate.

Rates of Mortality for Healthy Lives

Mortality rates for non-disabled members are based upon adjusted Employee and Healthy Annuitant CalPERS mortality tables projected generationally from the 2009 base year using a modified version of the MP-2015 projection scale as described below.

The table below provides a sample of these rates prior to any projection for mortality improvements.

	Actives			Annuitants	
Age	Male	Female	Age	Male	Female
25	0.04%	0.02%	55	0.58%	0.47%
35	0.06	0.03	65	0.96	0.76
45	0.11	0.07	75	2.71	2.22
55	0.23	0.14	85	8.57	6.77
65	0.48	0.30	95	23.01	21.14

For active members, 25% of Safety deaths and 0% of Miscellaneous deaths are assumed to be duty related.

Rates of Mortality for Retired Disabled Lives

Mortality rates for disabled Safety members are based upon adjusted CalPERS' Industrial Disability mortality tables projected generationally from the 2009 base year. Rates for disabled Miscellaneous members are based upon the RP-2014 Disabled Retiree Tables projected generationally from the 2006 base year. The projection scale is the same as used for healthy mortality and is described below.

The table below provides a sample of these rates prior to any projection for mortality improvements.

	Police and Fire		All Miscellaneous	
Age	Male	Female	Male	Female
55	0.58%	0.45%	2.34%	1.60%
65	1.30	1.05	3.42	2.70
75	3.49	2.90	6.31	5.24
85	9.44	7.82	12.92	11.57
95	23.01	20.50	26.34	24.16

Mortality Projection Scale

The mortality rates shown in the base tables above are projected generationally from the base year using a modified version of the MP-2015 projection scale. The scale was modified using the Society of Actuaries' model implementation tool with rates converging to the ultimate rate in 2017 (instead of 2029) and an ultimate rate of improvement of 0.85% (instead of 1.0%) up to age 85 decreasing to 0.70% (instead of 0.85%) at age 95.

Sample rates of improvement are shown in the table below.

	Females			Males		
Age	2009	2013	2017+	2009	2013	2017+
30	-0.0064	0.0031	0.0085	0.0066	0.0132	0.0085
50	0.0036	0.0101	0.0085	0.0167	0.0170	0.0085
70	0.0211	0.0146	0.0085	0.0227	0.0140	0.0085
90	0.0145	0.0113	0.0078	0.0158	0.0120	0.0078

Recent Changes

The July 1, 2016 valuation reflects changes to the Supplemental COLAs resulting from the October 25, 2015 San Francisco Superior Court judgment. This judgment affirmed that the voter-approved Proposition C Charter amendments from November 2011 could not be applied to certain retirees. As a result, retroactive supplemental COLAs were granted to those retirees as of July 1, 2013 and July 1, 2014. The bulk of the retroactive benefit payments were paid in January and February of 2016 with ongoing amounts commencing at the same time the retroactive amounts were paid. There have been no other significant changes in plan provisions reflected since the July 1, 2015 valuation.

There have been no significant changes in actuarial assumptions or methods reflected since the July 1, 2015 valuation.

There have been no changes in retained actuary or actuarial firm.

Plan Provisions and Contribution Information

A brief summary of the plan provisions may be found in the Notes to the Basic Financial Statements found in the Financial Section. A detailed summary of plan provisions may be found in the July 1, 2016 actuarial funding report issued in February 2017. A discussion of the funding policy may also be found in the Notes. A ten-year schedule of employer contributions may be found in the Required Supplementary Information of the Financial Section. Information on rates of employer and member contributions based on covered payroll may be found in the Statistical Section.

Total Pension Liability for GASB 67 Financial Reporting

The Actuarial Accrued Liability of this Actuarial Section differs from the Total Pension Liability found in Note 10 of the Basic Financial Statements and the Required Supplementary Information of the Financial Section in three ways:

- The Actuarial Accrued Liability (AAL) developed for the funding valuation does not include an assumption of future supplemental COLAs. The AAL does include all liabilities for supplemental COLAs that have already occurred as of the valuation date. Total Pension Liability incorporates the probability that future supplemental COLAs may occur in years after the valuation date.

- The census date of the AAL is the same as the valuation date of July 1. The census date for the June 30 fiscal year-end Total Pension Liability is as of previous July 1 valuation date. The Total Pension Liability is a roll-forward liability using standard roll-forward procedures, adjusted for significant changes during the fiscal year.
- The AAL is valued at a discount rate equal to the assumed investment return, while the Total Pension Liability is valued at a discount rate that may differ from the assumed investment return.

Note 10 contains further information about the assumed probabilities of future supplemental COLAs, the roll-forward of liabilities, and the assumed discount rate for GASB 67 financial reporting.

ACTUARIAL ANALYSIS OF FINANCIAL EXPERIENCE

The analysis of financial experience is a gain/loss analysis of changes in the unfunded actuarial accrued liability (UAAL) that considers variances between actual experience and assumed experience. The net expected changes in the UAAL from one year to the next include the sum of the additional benefits accrued during the year (the normal cost) and the interest accrual on the UAAL reduced by the payment of employer contributions.

The analysis also shows the impact on the UAAL due to changes in benefits due to voter-approved propositions and supplemental COLAs and also due to changes in assumptions such as mortality, investment return, or salary merit scale. Changes in the UAAL due to asset returns include the impacts of the five-year smoothing of investment returns inherent in the actuarial asset valuation method.

(Dollars in millions)

As of July 1	2016	2015	2014	2013	2012
Prior Valuation Unfunded Actuarial Accrued Liability	$ 3,317.60	$ 3,110.5	$ 3,921.4	$ 3,366.2	$ 2,285.6
Expected change from Prior Valuation	(25.2)	(70.7)	(98.6)	(80.1)	(58.3)
Expected Unfunded Actuarial Liability as of Valuation Date	$ 3,292.4	$ 3,039.8	$ 3,822.8	$ 3,286.1	$ 2,227.3
Changes in Benefits due to Propositions and/or Supplemental COLAs	429.3	0.0	0.0	0.0	0.0
Changes in Assumptions	0.0	1,084.4	153.1	0.0	135.5
Salary Increases Greater/(Less) than Expected	4.9	(79.9)	(214.6)	(a)	(173.7)
Asset Return Less/(Greater) than Expected	51.5	(545.5)	(749.2)	579.6	1,135.0
All Other Experience	(28.9)	(145.2)	98.4	55.7	42.1
Unfunded Actuarial Accrued Liability as of Valuation Date	**$ 3,749.2**	**$ 3,317.6**	**$ 3,110.5**	**$ 3,921.4**	**$ 3,366.2**

(a) Salary experience included with all other experience

SCHEDULE OF FUNDING PROGRESS

The schedule below presents valuation results for the last 10 years based upon actuarial methods and assumptions used for funding purposes.

(Dollars in millions)

Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b)-(a)	Funded Ratio (a)/(b)	Covered Payroll[1]	UAAL as a % of Covered Payroll
7/01/2007	14,929,287	13,541,388	(1,387,899)	110.3%	2,376,221	(58.4%)
7/01/2008	15,941,390	15,358,824	(582,566)	103.8%	2,457,196	(23.7%)
7/01/2009	16,004,730	16,498,649	493,919	97.0%	2,544,939	19.5%
7/01/2010	16,069,058	17,643,394	1,574,336	91.1%	2,398,823	65.6%
7/01/2011	16,313,120	18,598,728	2,285,608	87.7%	2,360,413	96.8%
7/01/2012	16,027,683	19,393,854	3,366,171	82.6%	2,393,842	140.6%
7/01/2013	16,303,397	20,224,777	3,921,380	80.6%	2,535,963	154.6%
7/01/2014	18,012,088	21,122,567	3,110,479	85.3%	2,640,153	117.8%
7/01/2015	19,653,339	22,970,892	3,317,553	85.6%	2,820,968	110.5%
7/01/2016	20,654,703	24,403,882	3,749,179	84.6%	3,062,422	122.4%

1 Covered payroll based upon actuarial projection of annualized pay for the year beginning on the valuation date.

ACTUARIAL SOLVENCY TEST

The solvency test compares aggregate actuarial liabilities by various categories with the plan's present assets. Category (A), active member contributions, includes both employee contributions and earned interest. Category (B) includes all liabilities for members no longer working, both retirees and beneficiaries who are receiving payments and also other inactives entitled to future payments. Category (C) includes the actuarial accrued liability for active members in excess of the active member contributions.

The table below shows a 100% funded status over the last ten years for employee contributions with interest (Category A) and for members who have terminated service with rights to future payments (Category B). The liabilities for service already rendered by active members (Category C) is not fully funded for valuations after July 1, 2008. The decline in funding percentages for Category C reflects both the 2008-2009 financial crisis and the lowering of the discount rate over the last ten years from 8.00% at July 1, 2007 to 7.50% at July 1, 2016. The decline in Category C funding percentages also reflects revisions in actuarial assumptions including the adoption of a generational projection of mortality improvements at July 1, 2015.

(Dollars in millions)

	Actuarial Accrued Liability (AAL)				Percentage of AAL Covered by Assets		
Valuation Date	Active Member Contributions (A)	Retirees, Beneficiaries, and Inactives (B)	Employer Financed Portion of Active Members (C)	Actuarial Value of Assets	(A)	(B)	(C)
7/1/2007	2,252*	7,424*	3,866*	14,929	100%	100%	100%
7/1/2008	2,298	8,013*	5,047*	15,941	100%	100%	100%
7/1/2009	2,376	9,028	5,095	16,005	100%	100%	90%
7/1/2010	2,331	10,171	5,141	16,069	100%	100%	69%
7/1/2011	2,364	10,987	5,248	16,313	100%	100%	56%
7/1/2012	2,451	11,658	5,285	16,028	100%	100%	36%
7/1/2013	2,633	12,257	5,335	16,303	100%	100%	26%
7/1/2014	2,825	12,901	5,397	18,012	100%	100%	42%
7/1/2015	2,995	13,931	6,045	19,653	100%	100%	45%
7/1/2016	3,175	14,941	6,288	20,655	100%	100%	40%

* Inactive liabilities are included in Categories (A) and (C) for 7/1/2007 and in Category (C) for 7/1/2008. The percentages of AAL covered by assets are unaffected as all three categories are at 100% at those two valuation dates.

SCHEDULE OF ACTIVE MEMBER VALUATION DATA

Valuation Date	Plan Type	Count[1]	Annual Covered Pay[1]	Average Annual Covered Pay	% Increase in Average Covered Pay
7/1/2007	General	26,608	2,008,192,000	75,473	–
	Safety	3,582	361,846,000	101,018	–
7/1/2008	General	26,878	2,059,587,819	76,627	1.5%
	Safety	3,772	397,608,369	105,410	2.6%
7/1/2009	General	26,205	1,981,788,543	75,626	(1.3)%
	Safety	3,714	402,975,857	108,502	2.9%
7/1/2010	General	24,689	1,915,169,605	77,572	2.6%
	Safety	3,533	400,262,779	113,293	4.4%
7/1/2011	General	24,701	1,883,122,340	76,237	-1.7%
	Safety	3,255	380,458,039	116,884	3.2%
7/1/2012	General	24,878	1,928,148,586	77,504	1.7%
	Safety	3,219	395,842,540	122,971	5.2%
7/1/2013	General	25,392	2,031,987,811	80,025	3.3%
	Safety	3,325	417,543,208	125,577	2.1%
7/1/2014	General	26,053	2,109,100,013	80,954	1.2%
	Safety	3,463	429,618,756	124,060	(1.2)%
7/1/2015	General	27,233	2,259,320,255	82,963	2.5%
	Safety	3,604	441,419,658	122,480	(1.3)%
7/1/2016	General	28,623	2,439,969,498	85,245	2.8%
	Safety	3,783	462,752,871	122,324	(0.1)%

1 July 1, 2007 through July 1, 2010 include DROP members. DROP members are excluded from July 1, 2011 forward. There are no active DROP members as of July 1, 2016. Annual Covered Pay represents the sum of the annualized valuation salary for the prior fiscal year for each active member as of the July 1 valuation date.

RETIREES AND BENEFICIARIES IN PAYEE STATUS

	Added to Rolls		Removed from Rolls		Rolls at End of Year			
Fiscal Year	Member Count	Annual Allowance	Count	Annual Allowance	Member Count	Annual Allowance	% Increase in Annual Allowance	Average Annual Allowance
2006-07	N/A	N/A	N/A	N/A	21,116	683,909,608	–	32,388
2007-08	1,269	44,225,244	881	23,553,431	21,514	691,842,055	1.2%	32,158
2008-09	1,545	60,356,100	765	20,550,523	22,294	755,029,081	9.1%	33,867
2009-10	2,004	85,601,938	798	22,483,938	23,500	834,425,915	10.5%	35,507
2010-11	1,672	66,575,560	880	24,641,442	24,292	905,053,471	8.5%	37,257
2011-12	1,769	70,868,367	871	26,958,609	25,190	982,250,287	8.5%	38,994
2012-13	1,577	66,437,220	733	22,406,077	26,034	1,045,547,799	6.4%	40,161
2013-14	1,588	65,923,470	770	25,170,856	26,852	1,103,959,803	5.6%	41,113
2014-15	1,564	63,136,134	931	29,314,643	27,485	1,157,081,680	4.8%	42,099
2015-16	1,657	72,049,646	856	30,384,191	28,286	1,247,230,245	7.8%	44,094

Statistical Section

The Statistical Section provides financial and operational information in further detail to assist users in understanding trends in the basic financial statements, notes to basic financial statements, and required supplemental information.

Financial Information

- ***Additions to Pension Plan by Source*** reflects the various sources of income to SFERS
- ***Deductions to Pension Plan by Type*** reflects the major expenses to SFERS which are benefits paid to members, refunds of employee contributions to members, and administrative expenses
- ***Changes in Fiduciary Net Position*** shows the changes in net position during each of the last 10 fiscal years
- ***Benefit Expenses of Pension Plan by Type*** details the benefits paid during the fiscal year due to retirements, disability, death, newly granted COLAs, and accruals for DROP

Operational Information

- ***Average Pension Benefit Payments*** highlights benefit levels paid to newly retired and disabled members with differing amounts of credited service
- ***Active Members by Employer*** shows the active member counts for each SFERS cost-sharing employer
- ***Employer Contribution Rates*** details the components that comprise the employer contribution rates
- ***Employer Contribution Rates for Fiscal Year 2016-17*** details the contribution rates for various member classes after cost-sharing provisions of 2011 Proposition C
- ***Employee Contribution Rates for Fiscal Year 2016-17*** shows the contribution rates for various member classes with the cost-sharing provisions of 2011 Proposition C

ADDITIONS TO PENSION PLAN BY SOURCE

(Dollars in thousands)

Fiscal Year Ending June 30	Member Contributions	Employer Contributions	Gross Return on Investments	Investment Expenses	Total
2008	185,123	134,060	(3,475,740)	(51,079)	(3,193,785)
2009	192,964	126,101[1]	(684,353)	(37,110)	(416,249)
2010	189,948	223,614	1,699,307	(44,206)	2,068,663
2011	181,755	308,823	2,932,154	(44,579)	3,378,153
2012	198,160	410,797	124,942	(44,540)	689,359
2013	258,726	442,870	2,106,204	(41,654)	2,766,146
2014	289,020	532,882	3,223,030	(47,599)	3,997,333
2015	301,682	592,643	808,340	(44,911)	1,657,754
2016	322,764	526,805	197,216	(47,026)	999,759
2017	316,844	551,809	2,730,863	(47,395)	3,552,121

1 Includes $6,350,000 transfer from CalPERS

DEDUCTIONS TO PENSION PLAN BY TYPE

(Dollars in thousands)

Fiscal Year Ending June 30	Benefits Paid	Refunds of Contributions	Administrative Expenses	Total
2008	682,230	8,449	12,594	703,273
2009	732,342	6,714	12,951	752,007
2010	792,776	11,997	13,833	818,606
2011	889,744	11,548	14,808	916,100
2012	968,528	11,030	14,916	994,474
2013	1,023,354	9,453	15,518	1,048,325
2014	1,062,229	10,297	15,745	1,088,271
2015	1,118,691	12,339	19,262	1,150,292
2016	1,243,260	12,886	17,179	1,273,325
2017	1,264,633	13,507	18,134	1,296,274

Together, the above two tables present the changes in plan net position during each of the last 10 fiscal years. Total additions less total deductions equal the net increase or decrease in fiduciary net position.

CHANGES IN FIDUCIARY NET POSITION

(Dollars in thousands)

Fiscal Year Ending June 30	Additions	Deductions	Net Change	Fiduciary Net Position	
				Beginning of Year	End of Year
2008	(416,249)	703,273	(1,119,522)	16,952,043	15,832,521
2009	(3,193,785)	752,007	(3,945,792)	15,832,521	11,886,729
2010	2,068,663	818,606	1,250,057	11,886,729	13,136,786
2011	3,378,153	916,100	2,462,053	13,136,786	15,598,839
2012	689,359	994,474	(305,115)	15,598,839	15,293,724
2013	2,766,146	1,048,325	1,717,821	15,293,724	17,011,545
2014	3,997,333	1,088,271	2,909,062	17,011,545	19,920,607
2015	1,657,754	1,150,292	507,462	19,920,607	20,428,069
2016	999,759	1,273,325	(273,566)	20,428,069	20,154,503
2017	3,552,121	1,296,274	2,255,847	21,154,503	22,410,350

BENEFIT PAYMENTS OF PENSION PLAN BY TYPE

(Dollars in thousands)

Fiscal Year	Retirement Benefits	Disability Benefits	Death Benefits	COLA Benefit Adjustments	DROP Accrued Retirement	Total
2008	500,398	132,134	11,721	37,977	0	682,230
2009	539,917	140,804	11,031	36,447	4,143	732,342
2010	593,048	149,122	8,325	35,287	6,994	792,776
2011	662,277	154,631	8,234	48,514	16,088	889,744
2012	716,744	161,782	8,198	57,234	24,570	968,528
2013	770,521	168,365	8,387	54,816	21,265	1,023,354
2014	827,311	172,619	7,998	53,098	1,203	1,062,229
2015	878,834	175,620	7,492	51,447	5,298	1,118,691
2016	937,388	179,056	8,990	118,012	(186)	1,243,260
2017	994,408	184,376	11,163	74,890	(294)	1,264,260

Fiscal year 2016 COLA benefits were higher than in fiscal year 2017 due to retroactive supplemental COLA benefits for 2013 and 2014 paid after the October 2015 Superior Court judgment. See Note (11)(b) of the Basic Financial Statements in the Financial Section for additional information. Benefit payments for the most recent fiscal year are provided in further detail in the Financial Section under Other Supplementary Information.

AVERAGE PENSION BENEFIT PAYMENT FOR RETIRED AND DISABLED MEMBERS

	Years of Credited Service					
Retirement Effective Dates	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30+
07/1/11 to 6/30/12						
Average Mo. Benefit	$ 899	$ 1,769	$ 2,675	$ 3,373	$ 5,084	$ 7,308
Average Final Comp.	$ 7,543	$ 7,050	$ 7,044	$ 7,099	$ 8,258	$ 9,405
Number	138	228	179	207	235	331
07/1/12 to 6/30/13						
Average Mo. Benefit	$ 909	$ 1,776	$ 2,792	$ 3,579	$ 5,720	$ 7,340
Average Final Comp.	$ 7,225	$ 6,982	$ 7,409	$ 7,564	$ 8,699	$ 9,758
Number	116	195	120	193	253	275
07/1/13 to 6/30/14						
Average Mo. Benefit	$ 980	$ 1,971	$ 2,812	$ 3,826	$ 5,720	$ 6,927
Average Final Comp.	$ 7,866	$ 7,214	$ 7,530	$ 7,905	$ 8,656	$ 9,143
Number	138	181	170	155	212	257
7/1/14 to 6/30/15						
Average Mo. Benefit	$ 969	$ 1,817	$ 2,930	$ 4,321	$ 5,237	$ 6,654
Average Final Comp.	$ 6,627	$ 6,844	$ 7,759	$ 8,267	$ 7,977	$ 8,827
Number	109	177	163	165	187	245
7/1/15 to 6/30/16						
Average Mo. Benefit	$ 1,051	$ 2,077	$ 2,906	$ 4,071	$ 5,716	$ 6,514
Average Final Comp.	$ 7,363	$ 8,266	$ 7,485	$ 8,404	$ 9,534	$ 9,016
Number	110	184	196	175	211	291
7/1/16 to 6/30/17						
Average Mo. Benefit	$ 1,113	$ 2,057	$ 3,184	$ 4,657	$ 6,138	$ 7,275
Average Final Comp.	$ 8,182	$ 7,989	$ 8,106	$ 9,205	$ 9,455	$ 9,651
Number	129	197	211	167	199	263

ACTIVE MEMBERS BY EMPLOYER

Employer	July 1, 2017	Percentage of System	July 1, 2012	Percentage of System
City and County of San Francisco[1]	30,980	92.6%	26,001	91.9%
San Francisco Unified School District	1,386	4.1%	1,180	4.2%
San Francisco Community College District	629	1.9%	686	2.4%
San Francisco Trial Courts	452	1.4%	415	1.5%
Total	**33,447**	**100.0%**	**28,282**	**100.0%**

1 Includes active DROP

EMPLOYER CONTRIBUTION RATES

Before Cost-Sharing Provisions[1]

Fiscal Year	Normal Cost	Remaining Cost of Propositions	Other UAL	Employee Contributions	Administrative Expenses	Total
2008	16.60%	3.52%	(7.15%)	(7.51%)	0.45%	5.91%
2009	16.19%	3.42%	(7.55%)	(7.52%)	0.45%	4.99%
2010	18.16%	5.41%	(7.03%)	(7.50%)	0.45%	9.49%
2011	18.18%	5.53%	(3.09%)	(7.51%)	0.45%	13.56%
2012	17.90%	6.51%	0.73%	(7.50%)	0.45%	18.09%
2013	17.90%	6.21%	3.66%	(7.51%)	0.45%	20.71%
2014	17.91%	6.11%	7.88%	(7.53%)	0.45%	24.82%
2015	18.26%	5.99%	9.60%	(7.54%)	0.45%	26.76%
2016	18.38%	5.86%	5.65%	(7.54%)	0.45%	22.80%
2017	18.65%	5.69%	4.02%	(7.56%)	0.60%	21.40%

1 Cost sharing provisions effective July 1, 2012 following passage of Proposition C in November of 2011

FISCAL YEAR 2016-2017 EMPLOYER CONTRIBUTION RATES

After Cost-Sharing Provisions

Member Group	Base Rate of Pay less than $27 per hour	Base Rate of Pay at or above $27 but less than $53 per hour	Base Rate of Pay at or above $53 per hour
Miscellaneous Non-Safety Plans	21.40%	18.90%	18.40%
Police and Firefighter Old Plans	17.90%	17.90%	17.90%
Police and Firefighter New Plans Tier I	17.90%	17.90%	17.90%
Police and Firefighter New Plans Tiers II and III	18.90%	18.90%	18.40%
Miscellaneous Safety and Sheriffs Plans	18.90%	18.90%	18.40%

FISCAL YEAR 2016-2017 EMPLOYEE CONTRIBUTION RATES

After Cost-Sharing Provisions

Member Group	Base Rate of Pay less than $27 per hour	Base Rate of Pay at or above $27 but less than $53 per hour	Base Rate of Pay at or above $53 per hour
Miscellaneous Old Plans	8.0%	10.5%	11.0%
Miscellaneous New Plans	7.5%	10.0%	10.5%
Police and Firefighter Old Plans	10.5%	10.5%	10.5%
Police and Firefighter New Plans Tier I	11.0%	11.0%	11.0%
Police and Firefighter New Plans Tiers II and III	11.5%	11.5%	12.0%
Miscellaneous Safety and Sheriffs Plans	11.5%	11.5%	12.0%

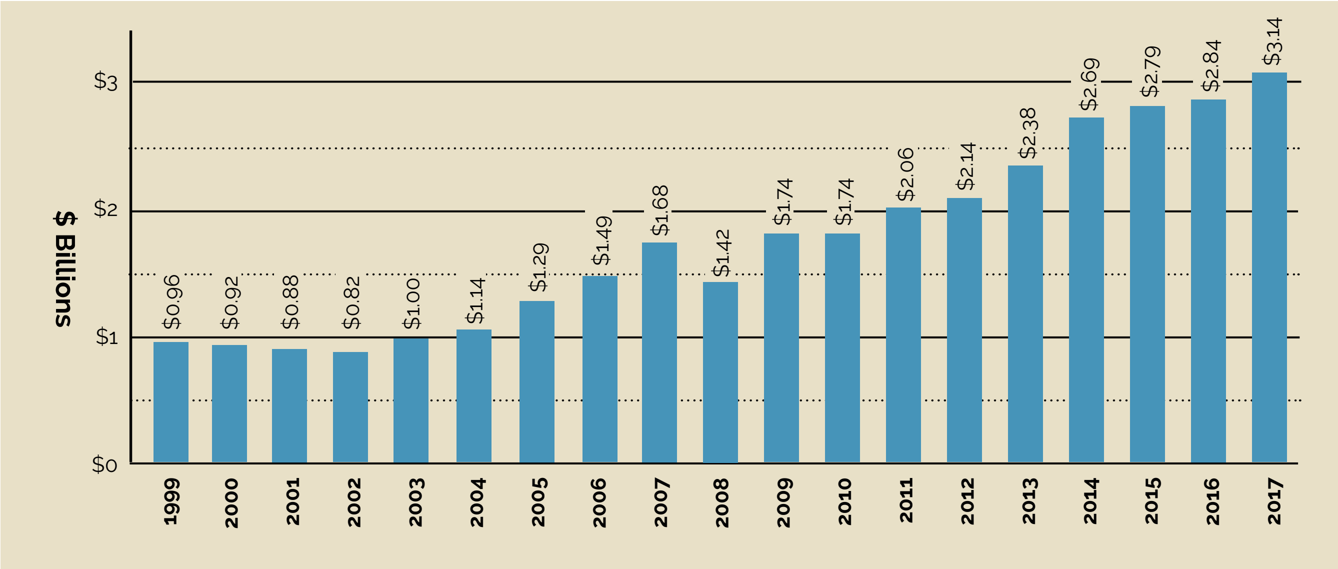
Deferred Compensation Plan (SFDCP)

The San Francisco 457(b) Deferred Compensation Plan (SFDCP) was adopted in 1979 to offer active members an opportunity to acquire additional retirement savings intended to complement pension benefits. The SFDCP allows City employees to voluntarily defer a portion of their regular earnings until after they retire or separate from service. This method of tax deferral has become increasingly popular and the Plan also offers Roth after-tax contributions. During the past fiscal year, total assets for the SFDCP grew at approximately 10.69%, and the average account balance per participant was $109,802.

The Plan provides a diverse selection of thirteen core investment funds, a suite of Target Date Funds, and access to a self-directed brokerage account. In addition to an enhanced line up of investment options, the SFDCP offers participants low fees, a customized website, client communications, online transactions, and dedicated retirement counselors available daily at the SFDCP office. Prudential Retirement currently serves as the Plan's third party administrator.

As of June 30, 2017, there were 28,583 participants in the SFDCP with Plan assets valued at $3.138 billion. The following chart and table provide detailed information about the investments that make up the City's 457(b) Deferred Compensation Plan, as well as customer service and participation activity for the Fiscal Year 2016-17.

SFDCP Assets under Management



SFDCP VALUES AS OF JUNE 30, 2017

Funds	Total Assets	Percent Of Total Assets	Annual Performance
SFDCP Stable Value Portfolio	$ 963,417,694	30.70%	1.59%
SFDCP Core Bond Portfolio	$ 153,742,413	4.90%	1.65%
SFDCP Retirement Fund[1]	$ 134,755,594	4.29%	6.66%
SFDCP Target Date 2020 Fund[1]	$ 105,547,484	3.36%	7.32%
SFDCP Target Date 2025 Fund[1]	$ 124,056,626	3.95%	9.07%
SFDCP Target Date 2030 Fund[1]	$ 103,727,266	3.31%	11.73%
SFDCP Target Date 2035 Fund[1]	$ 76,920,702	2.45%	15.26%
SFDCP Target Date 2040 Fund[1]	$ 52,163,027	1.66%	16.79%
SFDCP Target Date 2045 Fund[1]	$ 31,012,218	0.99%	16.79%
SFDCP Target Date 2050 Fund[1]	$ 8,235,491	0.26%	16.79%
SFDCP Target Date 2055 Fund[1]	$ 4,516,461	0.14%	16.79%
SFDCP Large Cap Core Equity - Active Portfolio	$ 51,510,544	1.64%	22.19%
SFDCP Large Cap Core Equity - S&P 500 Index	$ 246,941,787	7.87%	17.88%
SFDCP Large Cap Growth Equity Portfolio	$ 393,899,218	12.55%	24.59%
SFDCP Large Cap Social Equity Portfolio	$ 37,790,956	1.20%	21.47%
SFDCP Large Cap Value Equity Portfolio	$ 91,076,402	2.90%	19.31%
SFDCP Mid Cap Core Equity Portfolio[2]	$ 121,643,790	3.88%	16.91%
SFDCP Small Cap Core Equity Portfolio	$ 22,383,417	0.71%	19.22%
SFDCP Small Cap Growth Equity Portfolio	$ 63,871,794	2.04%	19.04%
SFDCP Small Cap Value Equity Portfolio	$ 90,848,815	2.89%	19.12%
SFDCP International Equity	$ 204,624,448	6.52%	22.18%
SFDCP Real Estate Portfolio	$ 42,121,126	1.34%	-3.90%
Self Directed Brokerage Account	$ 13,660,183	0.44%	N/A
TOTAL PLAN ASSETS	**$ 3,138,467,458**	**100.00%**	

* Assets are rounded up to the nearest dollar

1 Target Date Funds consist of a series of funds with professionally managed allocations designed to meet the needs of different age groups.

SFDCP STATISTICS SUMMARY

Plan Year Ended June 30, 2017

ASSET SUMMARY	
Beginning Assets July 1, 2016[1]	$ 2,835,338,858
Contributions	153,501,540
Roll-ins	13,843,215
Earnings[2]	302,825,739
Less Distributions	142,716,271
Less Outstanding Loan Balances	24,325,623
Ending Assets June 30, 2017	**$ 3,138,467,458**
PARTICIPANT SUMMARY	
Beginning Participants July 1, 2016[3]	27,156
New Participants	2,308
Less Full Distributions	881
Ending Participants June 30, 2017[4]	**28,583**
SERVICE SUMMARY	
Group Meetings	692
Field and Office Individual Counseling Sessions	6,545
Total Phone Calls	17,751
IVR (Interactive Voice Response) Calls	735
Customer Service Calls	17,016
Web Logins	377,064

1 Equals Ending Assets June 30, 2016 as reported on 06/30/2016 Fiscal Year Report

2 Includes investment earnings and operational adjustments

3 Equals Ending Participants June 30, 2016 as reported on 06/30/2016 Fiscal Year Report

4 Includes 20,103 active and 8,441 terminated/retired participants with a balance