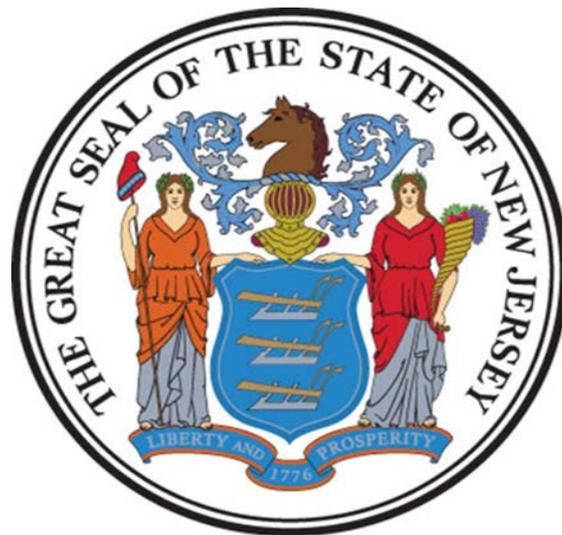


2017 ANNUAL REPORT

NEW JERSEY STATE INVESTMENT COUNCIL



FOR FISCAL YEAR 2017

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**New Jersey State Investment Council
50 West State Street, 9th Floor
P.O. Box 290
Trenton, N.J., 08625**

February 01, 2018

To the Honorable: the Governor, the Legislature, the State Treasurer and the Citizens of New Jersey:

You have read a lot about a pension crisis in New Jersey. We are indeed severely underfunded. But hopefully we are turning the corner as great investment results and increased contributions – now on a certain and regular schedule - made it a good year.

Our investment returns in the past fiscal year have given the system a much needed boost. The pension funds achieved a net return of 13.07%. Indeed, despite paying out over \$10 billion in benefits, we began the fiscal year with a balance of \$72.94 billion and ended it with a balance of \$75.96 billion. While this is a fiscal year based annual report, it is worth noting our returns for calendar year 2017 came in at 15%. If I can brag about the staff a little more, they beat the endowments of Princeton, Yale and Harvard in the last fiscal year – no small accomplishment. And we did this without taking undue risk.

Our single largest allocation of assets is to domestic equities. Yet we diversify our holdings to limit the downside from adverse developments in any one asset class. In the past year, we did quite well across the board. We increased our exposure to emerging markets and gained 22.7% in that category. We found creative ways to generate double digit returns in certain credit related investments despite the low interest rate environment that lead to negative returns for U.S. government bonds. Unlike many peer funds, we had very limited exposure to commodity prices that have continued to languish in this low inflation era. We continue to structure very creative private partnerships that have generated double digit returns after any and all fees were paid.

There is always criticism of the fees we pay for managing \$76 billion. It would be too risky to put all of our money in stocks, and equally irresponsible to invest it in specialized categories without using people with background and expertise in those areas. If we choose not to pay them, we would be pushed aside by plenty of smart people at top universities and leading sovereign wealth funds – not to mention pension funds in other states. So we push hard and negotiate good terms. A significant portion of our costs are performance allocations, where we don't pay these experts anything until they have made us at least 8% a year. In other words, we keep most of the remaining upside while giving our investment partners a bonus fee only in cases of excellent performance. Many pension funds do not even disclose their profit-sharing arrangements as fees; we do. We are probably the most transparent public fund in the country. Hopefully we remain smart enough to celebrate, not complain, when a manager delivers us double digit returns even after all fees are paid.

We get some of the best fee structures in the entire public pension world. Said Institutional Investor magazine: “Ask about...strategic partnerships...and everyone will tell you to talk to New Jersey. The massive public fund is renowned for getting fee deals from top-notch managers that others lust after.”¹

The alternative approaches have risks of their own. One is to risk losing too many billions of dollars in a stock market downturn; hopefully, New Jersey does not re-learn this lesson the hard way. Or we could make almost no return at all by investing too much in low yielding fixed income securities. Or we could lose money in alternative investments by making errors due to lack of specialized expertise.

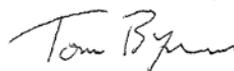
Our diversification has added \$1.0 billion to our bottom line in the last 5 years, based on the outperformance of the Alternative Investment Program above the remaining parts of the portfolio. Our compound annual return on private equity – after all fees paid out to a highly specialized group of managers – has been 14.9% on average over the past 5 years, making it our best performing investment category.

That is not to say that every alternative investment has paid off as hoped. Even the best stock pickers have holdings that don’t do well. The same is true for us in both stocks and funds. We have had a number of hedge funds that have returns in excess of 10% annually in the last five years. Although they did very well for us last year, returning 8%, their overall performance has been disappointing since 2009. They do serve a different purpose. They kept investors stable in 2008 by rising in many cases while other investments were falling sharply in value. I’ve remarked that hedge fund investing is a little like having Aaron Judge or Reggie Jackson in the lineup – yes there are more strikeouts but there are also a lot of home runs. We have cut back our overall allocation to hedge funds, and recently started an initiative in which we agreed to hire some newer managers who would work for about half of the normal fees in the industry. We’ve had great results from this approach to date. No member of this Council has ever moved to get rid of hedge funds entirely. The shift to improve the diversification of the portfolio, including the addition of hedge fund strategies, was originally undertaken under a Democratic Administration beginning back in 2005.

We have a new governor who has great expertise in the investment world, clear views on how to get the best returns possible on the pension assets, and a clearly stated commitment to continue to ramp up the contributions – all as part of the pledge to stabilize the pension system. As with any change in administration, it is a time of natural transition.

It has been a privilege to serve as chairman of the investment Council and to try to improve the retirement security of hundreds of thousands of our state’s citizens. It has been an honor to work with a dedicated staff and some terrific colleagues on the Council. I wish everyone involved continued success as we strive to maintain a pension system that will meet its obligations to all of our public employees.

Yours sincerely,



Brendan Thomas Byrne, Jr.
Chairman

¹ <https://www.institutionalinvestor.com/article/b1505q2m73hs74/allocators-choice-awards-finalists-announced?edit=true#.WZsw9K2ZOi4>

INTRODUCTION TO THE COUNCIL AND N.J. DIVISION OF INVESTMENT

DIVISION STAFF

Director:

Christopher McDonough

Deputy Director:

Corey Amon

THE STATE INVESTMENT COUNCIL

The State Investment Council (the “Council”) was created by the New Jersey Legislature in 1950 to formulate policies governing the investment of funds by the Director of the Division of Investment (the “Division”), as well as to consult with the Director with respect to the work of the Division.

The Council conducts meetings to discuss major investment policy issues, review Pension Fund performance and accept comments from members of the public. Other investment programs and returns are reviewed annually or when needed.

Council meetings are open to the public. Agendas, meeting times and locations are available on the Division’s website, www.state.nj.us/treasury/doinvest under the State Investment Council tab.

Mailing Address:

PO Box 290, Trenton, NJ 08625-0290

Email Address:

doi@treas.nj.gov

Offices:

50 West State Street, 9th Floor
Trenton, N.J. 08608-0290
Phone: (609) 292-5106

COUNCIL MEMBERSHIP AS OF DECEMBER 31, 2017:

Council Chairman:

Brendan Thomas Byrne, Jr. ⁽¹⁾

Managing Member, Byrne Asset Management LLC

Council Vice-Chairman:

Adam Liebttag⁽¹⁾

New Jersey State AFL-CIO Nominee

Council Members:

Thomas Bruno, Jr.

Public Employees Retirement System Designee

Michael Cleary⁽¹⁾

New Jersey State AFL-CIO Nominee

Charles Dolan⁽¹⁾

Managing Member, Global Markets Advisory Group

Andrew Michael Greaney⁽¹⁾

State Troopers Fraternal Association Nominee

James E. Hanson II ⁽¹⁾

CEO, Hampshire Real Estate Company

James L. Joyner

Teachers Pension and Annuity Fund Designee

Timothy McGuckin⁽¹⁾

New Jersey Education Association Nominee

Brady Middlesworth

Police and Firemen’s Retirement System Designee

Eric E. Richard⁽¹⁾

Senate President and Assembly Speaker Joint Appointee

Mitchell Shivers⁽¹⁾

Former Principal Deputy Assistant Secretary of Defense for Asian & Pacific Security Affairs
Former Managing Director, Merrill Lynch

⁽¹⁾ Appointed by the Governor

COUNCIL MEMBERSHIP

The Council is comprised of sixteen (16) members¹ pursuant to N.J.S.A. 52:18A-83. Nine members are appointed by the Governor for five-year terms, and are drawn traditionally from the investment community. Of those nine appointments, eight are made with the advice and consent of the State Senate. One appointment is made from nominees submitted jointly by the President of the Senate and Speaker of the Assembly. The statute requires that at least seven of the nine gubernatorial appointments shall be qualified by training and experience in the direct management, analysis, supervision or investment of assets, which training and experience shall have been acquired through academic training or through actual employment in those fields.

Four members are appointed by the Governor from nominees submitted by various employee organizations. Two of these four are appointed for five-year terms from nominees submitted by the New Jersey State AFL-CIO, with at least one of the two appointed members being a member of a union representing police officers or firefighters. One of these four members is appointed for a three-year term from nominees submitted by the New Jersey Education Association. The last of these four members is appointed by the Governor for a three-year term from nominees submitted by the State Troopers Fraternal Association. The statute requires that these four appointments shall be qualified by training, experience or long-term interest in the direct management, analysis, supervision or investment of assets and this training, experience or long-term interest shall have been supplemented by academic training in the fields of economics, business, law, financial or actuarial science or by actual employment in those fields.

Three members, representing the Public Employees' Retirement System (PERS), Teachers' Pension and Annuity Fund (TPAF) and Police and Firemen's Retirement System (PFRS), are designated from members of the respective pension system's board of trustees and serve three-year terms.

All members serve until reappointed or until a successor is named and has qualified.

THE DIVISION OF INVESTMENT

The Division, under the Council's supervision, is the 38th largest pension fund manager globally² and the 18th largest among U.S. public and corporate pension fund managers³. The Pension Fund supports the retirement plans of approximately 790,000 members in seven public pension systems: the Consolidated Police & Firemen's Pension Fund, the Judicial Retirement System, the Police & Firemen's Retirement System, the Prison Officers Pension Fund, the Public Employees' Retirement System, the State Police Retirement System and the Teachers' Pension & Annuity Fund (collectively referred to in this report as the "Pension Fund"). Approximately 49% of the members are still working and contributing to the pension plans while 42% are retired. The remaining 9% reflects the number of vested members no longer accruing benefits but not yet retired. Pension Fund assets are primarily managed through common trust funds ("Common Pension Funds").

¹ As of December 31, 2017, there were 12 Council members, with 4 vacant positions

² Measured by assets as of December 31, 2016. Reported by Pensions & Investments (P&I) and TowerWatson.com in "P&I/ TW 300 analysis."

<https://www.willistowerswatson.com/en/insights/2017/09/The-worlds-300-largest-pension-funds-year-ended-2016> Page 39

³ Measured by assets as of September 30, 2016. Reported by P&I on February 8, 2017.

The net asset value of the Pension Fund assets managed by the Division was \$76.0 billion as of June 30, 2017 compared to \$72.9 billion as of June 30, 2016. The Total Pension Fund investment return¹ for Fiscal Year 2017 was 13.07% (net of all fees) and approximately \$10.4 billion was paid to plan beneficiaries. The Division received for investment contributions of \$1.862 billion from the State, \$1.845 billion from local employers, and \$2.068 billion from employees.

The Division also manages the State of New Jersey Cash Management Fund, Supplemental Annuity Collective Trust (a 403b plan), a portion of the NJBEST Fund (a 529 college savings plan) as well as several funds under the New Jersey State Employees Deferred Compensation Plan (a 457 plan).

STATUTORY AUTHORITY AND HISTORY OF THE DIVISION

The Division was created in 1950 by the New Jersey Legislature (P.L. 1950, c.270) to centralize all functions relating to the purchase, sale or exchange of securities for the State's diverse funds under experienced and professional management. The statute also established a State Investment Council to formulate policies that govern the methods, practices or procedures for investments, reinvestments, sale or exchange transactions to be followed by the Director of the Division. The statute vests investment authority in the Director of the Division, who is appointed by the State Treasurer from a list of candidates certified as qualified and submitted by the Council.

INVESTMENT PARAMETERS

All investments must conform to the heightened "prudent person" standard set by the New Jersey Legislature (P.L. 1997, c.26). This standard requires the Director "to manage and invest the portfolio solely in the interests of the beneficiaries of the portfolio and for the exclusive purpose of providing financial benefits to the beneficiaries of the portfolio."

The mission of the Division is to achieve the best possible return at an acceptable level of risk utilizing the highest fiduciary standards.

COUNCIL REGULATIONS AND STRUCTURE

In addition to investment guidelines established by law, the Council is authorized by statute to establish investment policies that govern the methods, practices or procedures for investments, reinvestments, sale or exchange transactions (P.L. 1950, c.270).

Proposed regulations and amendments are filed upon approval of the Council with the Office of Administrative Law for publication in *The New Jersey Register*, followed by a 60-day public comment period. After the public comment period, each proposal is returned to the Council for adoption, along with any comments received. The adopted regulations of the Council are published in the New Jersey Administrative Code (N.J.A.C. 17:16), and are available for viewing online at <http://www.lexisnexis.com/njoal>.

On July 27, 2017, the Council adopted special amendments at N.J.A.C. 17:16-69.1 to implement certain provisions of P.L. 2017, c. 98 (the "Lottery Contribution Act"). In accordance with the Lottery Contribution Act, the State contributed the Lottery Enterprise for a period of 30 years for the benefit of

¹ Total Pension Fund returns cited throughout this Annual Report exclude receivables under the Police and Fire Mortgage Program. All investment returns are reported net of all fees.

three of the pension plans (Police and Firemen's Retirement System, Public Employees' Retirement System and Teachers' Pension and Annuity Fund), and deposited the same in Common Pension Fund L, which was created within the Division by the Act.. The rules are designed to make clear that Common Pension Fund L, established by the Lottery Contribution Act, shall be a "Common Pension Fund" for purposes of N.J.A.C. 17:16-69. These specially adopted amendments will remain in effect until July 27, 2018, or until the rules are proposed for public comment and readopted through standard rulemaking procedures.

On September 5, 2017, proposed amendments to N.J.A.C. 17:16-12 (Global Debt Obligations), 19 (Collateralized Notes and Mortgages), 23 (Global Diversified Credit Investments), 40 (Non-convertible Preferred Stocks), and 58 (Mortgage Backed Senior Debt Securities; Mortgage Backed Passthrough Securities) were published in the *The New Jersey Register*. The proposed amendments broadened permissible investments to be more inclusive of the opportunity set in the credit markets and established separate limitations for global diversified credit (10%) and high yield (8%) investments, which previously had a combined limit of 8%. The public comment period ended on November 3, 2017 and no comments were received. The proposed amendments, adopted by the Council on November 29, 2017, were published in *The New Jersey Register* and became effective on January 2, 2018.

COUNCIL ORGANIZATIONAL CHANGES DURING CALENDAR YEAR 2017

The Council underwent the following organizational changes between January 1, 2017 and December 31, 2017:

- Brady Middlesworth replaced Marty Barrett as the Police and Firemen's Retirement System representative on July 10, 2017.
- Edward "Ned" Thomson replaced Thomas Bruno as the Public Employees Retirement System representative on July 19, 2017.
- Thomas Bruno was reappointed as the Public Employees Retirement System representative on August 16, 2017 after Mr. Thomson resigned to accept an open Assemblyman position for the 30th legislative district.
- The Council re-elected Brendan Thomas Byrne, Jr. as Council Chair and Adam Liebttag as Council Vice-Chair, each for a one-year term on October 4, 2017.
- Council Member Jeffrey Oram resigned from the State Investment Council on December 11, 2017.
- Council Member Guy Haselmann resigned from the State Investment Council on December 15, 2017.

LEGISLATIVE UPDATE

PROHIBITED INVESTMENTS

The Division maintains a list of companies ineligible for investment under three State laws: a Sudan divestiture law adopted in 2005 (P.L. 2005, c. 162), an Iran divestiture law adopted in 2007 (P.L. 2007, c. 250), and a law requiring divestments of companies boycotting Israel (P.L. 2016, c. 24). The Division uses an independent research firm to assist it in complying with the provisions of the statutes. Reports are filed with the Legislature annually in accordance with each of the statutes.

Divestitures pose three primary fiscal challenges to the Pension Fund: they require the identification and sale of holdings on a timetable that may not consider market conditions, they impact risk and return for the Pension Fund, and they reduce the investment universe available to the Pension Fund. Collectively, the divestiture laws reduced the investment universe as of June 30, 2017 by approximately 1.5% in international developed markets and 1.9% in international emerging markets, relative to their respective benchmarks.

NORTHERN IRELAND REPORT

The Division has been required since 1987 (P.L. 1987, c.177) to report annually to the Legislature regarding the adherence of U.S. companies and their subsidiaries doing business in Northern Ireland, in which the assets of any state pension or annuity fund are invested, to the “MacBride Principles.” “McBride Principles” refers to a body of employment laws aimed at reducing employment discrimination in Northern Ireland. The report is filed each year by January 15th in accordance with the statute.

NET ASSETS UNDER MANAGEMENT

	NET ASSETS IN MILLIONS	
	June 30, 2017	June 30, 2016
PENSION FUND ⁽¹⁾	\$75,964	\$72,940
The Pension Fund includes pension assets contributed by participants and by State and local employers for participants in seven statewide retirement plans.		
Public Employees' Retirement System	26,834	25,473
Police & Firemen's Retirement System	24,459	22,822
Teachers' Pension & Annuity Fund	22,749	22,761
State Police Retirement System	1,743	1,694
Judicial Retirement System	172	182
Prison Officers' Pension Fund	5	6
Consolidated Police & Firemen's Pension Fund	2	2
<i>Note: Total may not equal sum of components due to rounding</i>		
CASH MANAGEMENT FUND⁽²⁾	\$14,335	\$11,849
This fund includes the cash balances of State government funds and "other-than-state" government entities (counties, municipalities, school districts and the agencies or authorities created by any of these).		
SUPPLEMENTAL ANNUITY COLLECTIVE TRUST	\$227	\$202
This fund includes voluntary investments by employees for retirement income separate from, and in addition to, their basic pension plan.		

- (1) The net assets of the Pension Fund include the net assets managed by the Division through the Common Pension Funds and exclude certain direct assets and liabilities of the seven underlying pension plans. Year over year change in net assets is impacted by a variety of factors including performance, plan funding and plan design.
- (2) The total for the Cash Management Fund includes \$4 billion on June 30, 2017 (\$4 billion on June 30, 2016) held for and included in the totals for the Pension Fund, the Supplemental Annuity Collective Trust, Trustees for the Support of Public Schools Fund, the NJBEST Fund and Deferred Compensation Program.

NJBEST FUND

The Division manages some of the contributions of New Jersey residents for the State's tax-advantaged 529 college savings program. On June 30, 2017, the Division-managed portion of this fund had a market value of \$352 million compared with \$372 million on June 30, 2016. The year-over-year decline in market value is primarily attributable to net redemptions.

DEFERRED COMPENSATION PROGRAM

The Division manages some of the assets contributed by employees into the New Jersey State Employees Deferred Compensation Plan. Prudential Retirement, a business of Prudential Financial, serves as the third-party administrator for this plan. Funds managed by the Division include contributions to the Equity Fund and Small Capitalization Equity Fund. On June 30, 2017, these funds had a combined market value of \$548 million compared with \$494 million on June 30, 2016, with the increased market value primarily attributable to investment earnings in a strong financial market environment.

TRUSTEES FOR THE SUPPORT OF PUBLIC SCHOOL FUND

The Division manages the fund reserve required to support the rating of school bonds issued for the maintenance and support of the State's public schools. On June 30, 2017, the portfolio had a market value of \$149 million compared with \$146 million on June 30, 2016.

20-YEAR PENSION FUND FINANCIAL SUMMARY

FISCAL YEAR	NET ASSETS (\$BILLIONS)	RATE OF RETURN (net of all fees) (%)	GROSS PENSION PAYMENTS (\$BILLIONS)
2017	76.0	13.07	10.4
2016	72.9	(0.93)	10.0
2015	79.0	4.09	9.6
2014	81.2	16.79	9.1
2013	74.4	11.72	8.7
5-YEAR ANNUALIZED RETURN		8.75	
2012	70.1	2.47	8.3
2011	73.7	17.97	7.7
2010	66.8	13.34	7.0
2009	62.9	(15.49)	6.6
2008	78.6	(2.61)	6.1
10-YEAR ANNUALIZED RETURN		5.55	
2007	82.5	17.14	5.6
2006	73.1	9.79	5.2
2005	69.8	8.77	4.8
2004	67.8	14.16	4.4
2003	62.6	3.31	4.1
15-YEAR ANNUALIZED RETURN		7.18	
2002	63.3	(8.61)	3.6
2001	72.2	(9.80)	3.2
2000	82.6	11.86	2.9
1999	76.2	16.27	2.7
1998	67.3	22.70	2.5
20-YEAR ANNUALIZED RETURN		6.79	

During Fiscal Year 2017, net transfers of approximately \$5.08 billion were made from the Common Funds to the following pension plans: \$25.5 million to the Judicial Retirement System, \$1.03 billion to the Police & Firemen's Retirement System, \$1.49 billion to the Public Employees' Retirement System, \$139.1 million to the State Police Retirement System and \$2.39 billion to the Teachers' Pension & Annuity Fund.

PENSION FUND ASSET ALLOCATION

Pension Fund asset allocation policies are adopted and revised by the Council as conditions warrant. The Council formally adopts target allocations and allowable ranges for each asset class and asset category. Eligible investments are governed by the “whole plan” or “whole portfolio” principle, which permits a broad spectrum of investments to ensure diversity and to optimize expected risk/return tradeoffs on the investments as a whole.

In August 2016, the Council adopted new targeted allocations that generally reflected a desire to reduce the overall allocation to hedge funds (from 12.5% to 6%) while maintaining a reasonable level of diversification and downside protection. These adjustments coincide with the Division’s initiatives to restructure the hedge fund allocation via a consolidation of funds and the establishment of the Division’s Fund Alignment and Incentive Reform (FAIR) program. Key objectives of the FAIR program are to reduce fees, enhance returns, create better alignment of interests for plan participants, offer greater transparency, and lower operating costs. The FAIR program is focused on Risk Mitigation strategies.

Accordingly, the remaining investments in hedge fund strategies are predominantly focused on Risk Mitigation strategies (with a targeted allocation of 5%) following the elimination of the target allocation to Equity-Oriented hedge funds and a sharp reduction in the target allocation to Credit-Oriented hedge funds (from 3% to 1%).

Proceeds from hedge fund redemptions are redeployed over time primarily to U.S. Equities, Investment Grade (IG) Credit, and U.S. Treasuries. The targeted allocation to U.S. Equities increased from 26% to 30%, the targeted allocation to IG Credit increased from 8% to 10%, and the targeted allocation to U.S. Treasuries increased from 2% to 3%.

The Council also eliminated targeted allocations to Commodities (previously 1%) and Treasury Inflation Protected Securities, or TIPS (previously 1.5%). While both remain allowable investments, the targeted commitments were lifted based broadly on a view that inflation hedging is a less important investment objective. More specifically, commodities are viewed to be a less efficient asset class (lower return per unit of risk) that provides less of a benefit from diversification, going forward, versus investments in operating companies that focus on exposure to real assets. The elimination of a formal allocation to TIPS better reflects the relative value role that TIPS play in the portfolio versus nominal Treasury securities. Therefore, TIPS may be used in the portfolio, going forward, when the Division believes TIPS offer more attractive relative value versus nominal Treasury securities.

As part of the Council’s adoption of new targeted allocations, allowable ranges for certain strategies were expanded to provide the Division with appropriate latitude, in light of greater restrictions imposed elsewhere. Most notably, the allowable range for cash equivalents was broadened from 0-15% to 0-25% and the allowable range for Governments was broadened from 0-10% to 0-15%.

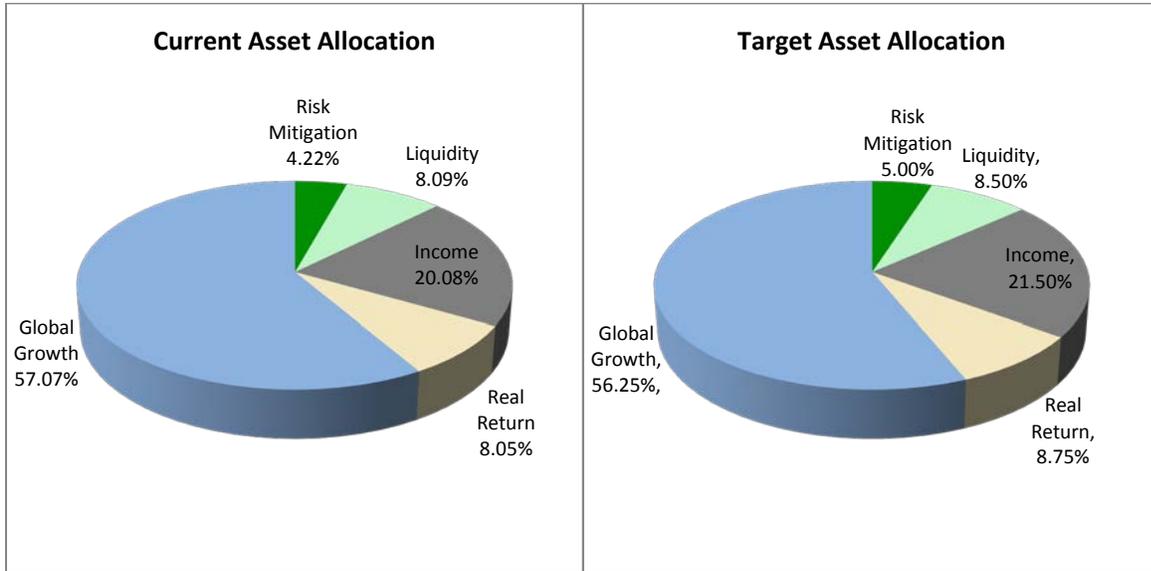
ACTUAL ALLOCATION AS OF JUNE 30, 2017 VS. TARGETED ASSET ALLOCATION

	Actual Allocation %	Target %	Difference %	Allocation (\$ in millions)	Allowable Ranges
Absolute Return/Risk Mitigation	4.22%	5.00%	(0.78%)	3,203.84	0-8%
Risk Mitigation	4.22%	5.00%	(0.78%)	3,203.84	0-8%
Cash Equivalents & Short Term ⁽¹⁾	5.25%	5.50%	(0.25%)	3,984.27	0-25%
Governments	2.85%	3.00%	(0.15%)	2,160.08	0-15%
Total Liquidity	8.09%	8.50%	(0.41%)	6,144.35	2-25%
Investment Grade Credit	9.44%	10.00%	(0.56%)	7,170.98	5-20%
Public High Yield	1.91%	2.50%	(0.59%)	1,453.56	0-8%
Global Diversified Credit	4.81%	5.00%	(0.19%)	3,654.81	0-7%
Credit-Oriented Hedge Funds	2.41%	1.00%	1.41%	1,833.79	0-5%
Debt-Related Private Equity	0.91%	2.00%	(1.09%)	690.49	0-4%
Debt-Related Real Estate	0.59%	1.00%	(0.41%)	446.77	0-4%
Total Income	20.08%	21.50%	(1.42%)	15,250.40	15-40%
Real Assets	2.65%	2.50%	0.15%	2,018.20	0-7%
Equity Related Real Estate	5.40%	6.25%	(0.85%)	4,099.21	2-9%
Total Real Return	8.05%	8.75%	(0.70%)	6,117.41	3-12%
U.S. Equity	28.24%	30.00%	(1.76%)	21,454.35	15-35%
Non-US Developed Markets Equity	11.65%	11.50%	0.15%	8,852.35	8-20%
Emerging Markets Equity	6.39%	6.50%	(0.11%)	4,852.45	5-15%
Equity Oriented Hedge Funds	1.37%	0.00%	1.37%	1,043.41	0-5%
Buyouts/Venture Capital	9.41%	8.25%	1.16%	7,150.80	4-12%
Total Global Growth	57.07%	56.25%	0.82%	43,353.36	45-65%
Opportunistic Investments	0.46%	0.00%	0.46%	342.11	
Police and Fire Mortgage Program ⁽²⁾	1.52%	0.00%	1.52%	1,158.97	
Other Cash and Receivables	0.52%	0.00%	0.52%	393.99	
Total Pension Fund	100.00%	100.00%	0.00%	75,964.43	

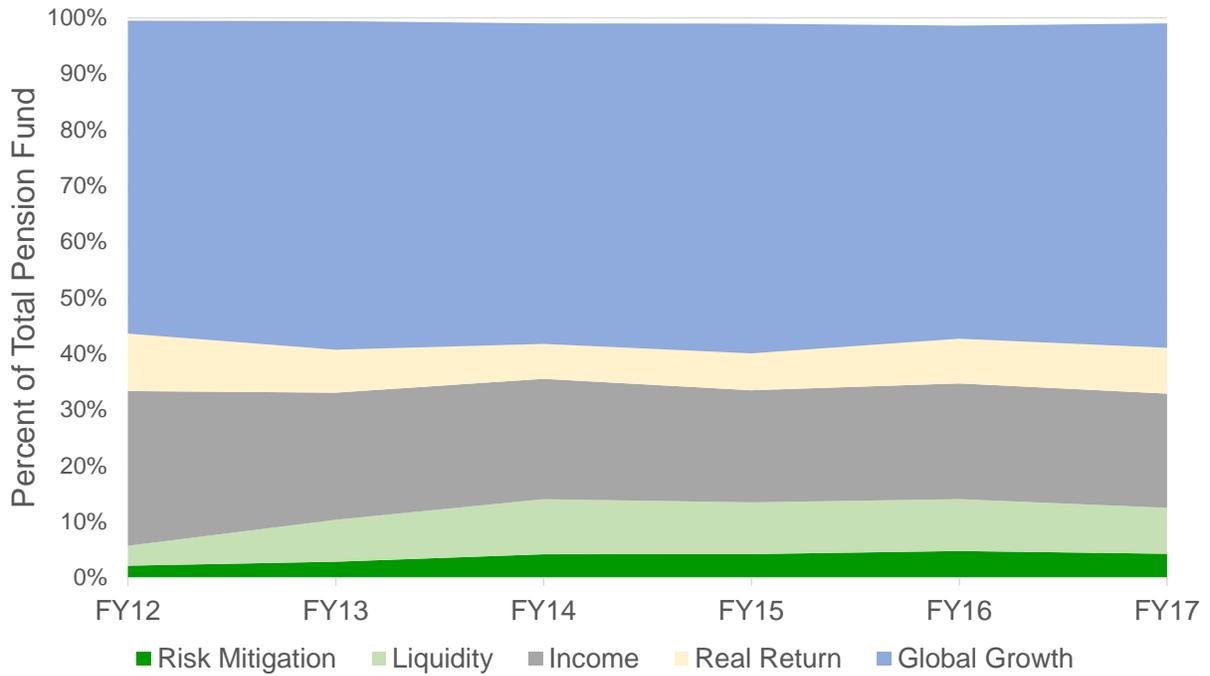
1 The cash aggregate comprises the two common pension fund cash accounts, in addition to the seven plan cash accounts.

2. For Financial Reporting, Police and Fire Mortgage Program is considered a receivable under GASB 72. Only the Police and Fire Retirement System has exposure to the Program.

Totals may not equal sum of components due to rounding.



PENSION FUND COMPOSITE ASSET ALLOCATION 6-YEAR HISTORY



MARKET OVERVIEW FOR FISCAL YEAR 2017

During Fiscal Year 2017, a strengthening global economic environment and a pronounced rebound in corporate earnings led global stocks to higher valuations as the MSCI All Country World Index (ACWI) returned +18.78%.

The broad U.S. Equity Market, as measured by the Russell 3000, returned +18.50%, buoyed by strong earnings growth in early 2017, as well as expectations for fiscal stimulus, lower corporate tax rates, deregulation and increased infrastructure spending. The market was led by outsized returns in Technology (+34.79%) and Financial Services (+27.54%). From a capitalization standpoint, U.S. small cap stocks (+24.57%) outperformed large cap stocks (+18.02%) for the first time since Fiscal Year 2013.

In a reversal from the prior year, higher yielding defensive sectors were among the worst performing sectors in Fiscal Year 2017, with Consumer Staples (+2.43%) and Utilities (-1.97%) sharply lagging the broader market as expectations for higher interest rates adversely impacted those sectors. Energy (-4.66%) realized negative returns for a third straight fiscal year as oil prices declined.

International Developed Markets (DM) also realized strong returns as the MSCI EAFE returned +20.27%, marking a sharp reversal from the prior year and the first fiscal year since Fiscal Year 2008 that the MSCI EAFE index outperformed the Russell 3000 index. DM equities were supported by more attractive valuations, renewed optimism regarding economic growth prospects, and a tapering of political risk. Outcomes in key elections spurred strong returns, particularly in France (+28.14%), as uncertainty regarding the stability of the European Union eased somewhat. Spain (+38.39%) was the best performing major DM country, largely reflecting a sharp reversal in its financial sector as markets discounted an improving outlook for credit quality and improving profitability within the banking sector. Notwithstanding favorable absolute returns in Canada (+11.68%) and the U.K. (+13.35%), relative returns lagged as Canada was adversely impacted by weak energy prices and the U.K. faced an uncertain future following its formal declaration of an exit from the European Union.

International Emerging Markets (EM) also realized strong returns (+23.75%), marking the first fiscal year since Fiscal Year 2008 that EM outperformed the MSCI EAFE index, led by Korea (+34.88%) and Taiwan (+32.85%). EM proved resilient in the midst of weak commodity prices and heightened geopolitical events, including a failed coup attempt in Turkey and presidential impeachments in Brazil and Korea. Outcomes in key European elections and easing financial sector concerns spurred strong returns in peripheral Europe, with Greece returning +50.39%. Renewed optimism in global economic growth prospects enabled China (+32.19%) to realize strong returns despite a downgrade of its sovereign ratings spurred by concerns related to increased leverage. Notwithstanding favorable absolute returns in Russia (+10.33%), relative returns lagged as they were adversely impacted by weak energy prices. Brazil (+17.00%) underperformed, realizing negative returns during Second Quarter 2017 in the midst of a government corruption scandal.

The broad Fixed Income market realized modestly negative returns as the Bloomberg Barclays U.S. Aggregate Bond Index returned -0.31%. Yields rose across the curve in anticipation of higher inflation and less policy accommodation. Investment grade credit (+1.84%) fared modestly better than Treasuries (-2.32%) as spreads narrowed. Lower quality securities significantly outperformed, rebounding from a challenging Fiscal Year 2016, as High Yield (+12.70%) spreads tightened by 230 basis points (from 594 to 364 basis points, on average).

Intermediate duration fixed income securities outperformed long duration securities in a rising interest rate environment. Long Treasuries (-7.22%) underperformed, with a return of -11.67% during Fourth

Quarter Calendar 2016 as the benchmark thirty-year yield rose 75 basis points (from 2.32% to 3.07%). CCC rated corporates (+20.77%) were the best performing quality sector of the credit markets, outperforming duration-matched Treasuries by 2,156 basis points.

The weak energy sector pushed commodities lower for a third consecutive fiscal year, partially offset by a strong recovery in industrial metals as global industrial production accelerated. Brent crude oil and natural gas returned -13% and -10%, respectively. Surplus oil inventories, an insufficient response from OPEC, and a quick ramp up in production following a temporary price rebound led to a -24% peak-to-trough return for crude oil from a January high to the low in June 2017.

The U.S. dollar was mixed during Fiscal Year 2017, as dollar strength in late 2016 was offset by expectations for accelerating global growth, less accommodative global monetary policy and dollar weakness during the first half of 2017. The U.S. dollar reached a 14-year high versus major currencies in late 2016, in response to expectations for fiscal stimulus, including deregulation and tax reform. In contrast, the first half of 2017 proved to be the U.S. dollar's weakest stretch since 2011. As a result, the U.S. Dollar ended largely unchanged versus a basket of major currencies, strengthening against the Japanese yen while weakening versus the Euro. Yen weakness is partly attributable to the Bank of Japan's continued extraordinary monetary policy accommodation as well as Fourth Quarter 2016 concerns of weakening trade and economic growth prospects. The Mexican peso also weakened in Fourth Quarter 2016, but managed a strong rebound during 2017, at the same time that Emerging Markets broadly realized strong returns.

Global Private Equity (+14.86%) exhibited strong performance during Fiscal Year 2017, led by a sharp rebound in Natural Resources (+21.19%) as energy prices recovered during the second half of calendar 2016. Buyout strategies (+14.55%) benefited from strong valuations, an active M&A environment, and low borrowing costs while Distressed Debt (+14.72%) strategies moved higher in conjunction with a supportive high yield market. The investment environment characterized by high equity valuations, outsized high yield returns, and low interest rates provided additional support for the private markets.

Notwithstanding low cap rates and pressure from rising global bond yields, Real Estate (+7.27%) earned favorable returns over the past year supported by a constructive fundamental backdrop, marking the eighth consecutive fiscal year of positive returns. Industrial property types and the western region of the U.S. were the best performers throughout the year, benefitting from broad patterns of changes in distribution channels and logistics as the e-commerce sector continues to expand, as well as strength in the technology sector. Continued favorable demand for high quality real estate and relatively low levels of construction kept supply in check as income producing assets remained attractive in a moderate growth economy characterized by low interest rates. The fundamental outlook remained constructive, with positive net absorption and limited new supply in most property sectors.

TOTAL PENSION FUND RETURN VS. BENCHMARK

	Annualized Returns (%)				
	FY17	3 Years	5 Years	10 Years	20 Years
Total Pension Fund	13.07	5.25	8.75	5.55	6.79
Total Fund Benchmark⁽¹⁾	13.14	5.29	8.45	4.83	*

(1) Benchmark is a weighted composite of index returns in each asset class

* Benchmark return not available for 20 year period

- The Total Pension Fund performed in line with the Total Fund Benchmark for Fiscal Year 2017.
- For the five and ten year periods ended June 30, 2017, the Total Pension Fund outperformed the Total Fund Benchmark by 30 and 72 basis points, respectively, on an annualized basis.
- For the five and ten year periods ended June 30, 2017, the Total Pension Fund's risk-adjusted returns are in the top quartile versus the Fund's peer universe.
- Since June 30, 2010, the Total Pension Fund has experienced gains and income through investments totaling \$43.7 billion, with an annualized return of +9.09% versus +8.43% for the Total Fund Benchmark, outperforming the benchmark by 66 basis points (annualized). For a portfolio with an average balance of \$72.5 billion (the average balance of the Total Pension Fund), outperformance of 86 basis points adds an estimated \$3.4 billion of value to the portfolio over a seven year period.

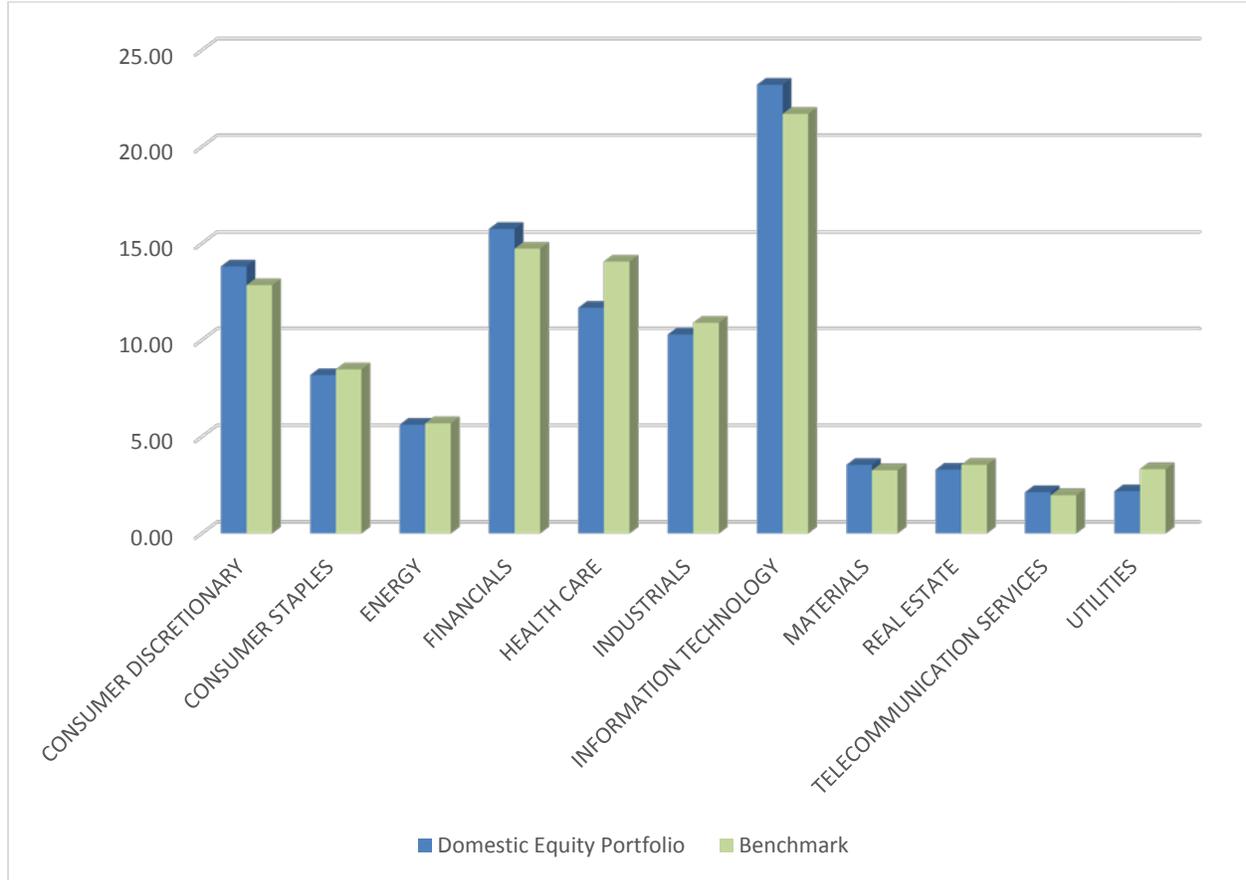
DOMESTIC EQUITY HIGHLIGHTS OF FISCAL YEAR 2017

	Annualized Returns (%)			
	FY17	3 Years	5 Years	10 Years
Domestic Equity with Cash, Hedges, Miscellaneous	19.67	8.21	14.08	7.76
Domestic Equity Only (Ex Cash and hedges)	19.80	8.22	14.29	
S&P 1500 Composite	18.09	9.51	14.68	7.34

- The Domestic Equity portfolio is broadly diversified by economic sector with approximately 700 publicly traded stocks. While exposure to most sectors is comparable to that of the overall market, the Division will actively overweight and underweight securities and industries in the portfolio with the objective of outperforming the benchmark.
- During Fiscal Year 2017, the Domestic Equity Portfolio returned 19.80% vs. the S&P 1500 return of 18.09%, outperforming its benchmark by 171 basis points. Nine of eleven sectors posted positive returns during the fiscal year. The S&P 1500 is a broad market index which includes large, mid and small capitalization securities. The more commonly referenced S&P 500, which returned 17.89% for the period, only includes large capitalization securities.
- Security selection was the primary factor contributing to favorable relative returns for the Domestic Equity portfolio. The information technology and financial sectors provided the highest selection contribution to portfolio performance.
- The Domestic Equity portfolio has outperformed in eleven of the past thirteen fiscal years, realizing outperformance of 60 basis points (annualized) over the same time horizon. For a portfolio with an average balance of \$23 billion (the average balance of the Domestic Equity portfolio),

outperformance of 60 basis points adds an estimated \$1.9 billion of value to the portfolio over a thirteen year period.

SECTOR WEIGHTING OF DOMESTIC EQUITY PORTFOLIO IN COMPARISON TO S&P 1500 AS OF 6/30/17



The top 10 holdings in the Domestic Equity portfolio represent 22.30% of the total portfolio.

TOP HOLDINGS IN DOMESTIC EQUITY PORTFOLIO AS OF JUNE 30, 2017

Company	% of Portfolio
APPLE INC	3.49
MICROSOFT CORP	2.95
ALPHABET INC	2.92
FACEBOOK INC	2.41
AMAZON.COM	2.17
JPMORGAN CHASE	1.88
JOHNSON & JOHNSON	1.87
EXXON MOBIL CORP	1.71
BANK OF AMERICA	1.47
WELLS FARGO	1.43

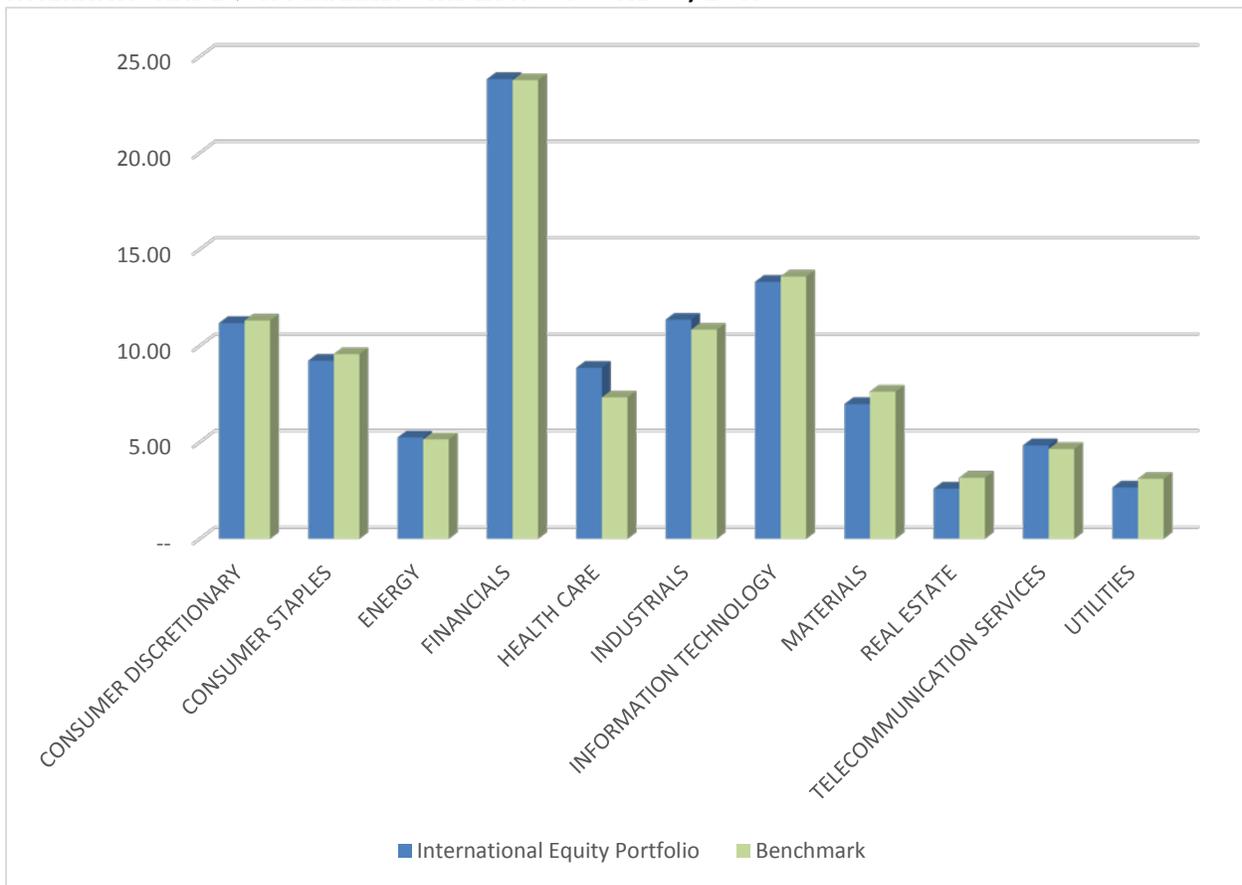
INTERNATIONAL EQUITY HIGHLIGHTS OF FISCAL YEAR 2017

	Annualized Returns (%)			
	FY17	3 Years	5 Years	10 Years
International Equity with Cash, Hedges, Miscellaneous	20.24	0.90	6.48	0.50
<i>Custom International Equity Markets Benchmark⁽¹⁾</i>	21.21	1.20	6.94	
<i>MSCI All Country World Index (ex U.S.)</i>	20.45	0.80	7.22	1.13
Developed Markets Equity	19.02	1.15	8.49	
<i>Custom International Developed Markets Benchmark⁽¹⁾</i>	19.59	0.87	8.31	
Emerging Markets Equity	22.69	0.39	3.26	
<i>Custom International Emerging Markets Benchmark⁽¹⁾</i>	24.07	1.48	4.33	

⁽¹⁾ Source: MSCI. Each benchmark is a custom index calculated by MSCI for, and as requested by the Division, based on screening criteria defined by the Division. These benchmarks exclude those securities deemed ineligible for investment under the State statutes governing investments in Iran, Sudan and companies that boycott Israel. The MSCI data is for internal use only and may not be redistributed or used in connection with creating or offering any securities, financial products or indices. Neither MSCI nor any other third party involved in or related to compiling, computing or creating the MSCI data (the "MSCI Parties") makes any express or implied warranties or representations with respect to such data (or the results to be obtained by the use thereof), and the MSCI Parties hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to such data. Without limiting any of the foregoing, in no event shall any of the MSCI Parties have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages.

- The International Equity portfolio is broadly diversified with exposure to more than 50 countries and investments in over 2,500 publicly traded non-U.S. stocks. The International Equity portfolio includes both developed market equities and emerging market equities. The Developed Market portfolio is a composite of a passively managed optimized portfolio, ETFs, an actively managed health care portfolio, and an actively managed portfolio of international small cap securities. The Emerging Market portfolio is a composite of actively managed portfolios comprised of individual securities and ETFs. At fiscal year-end, approximately 41% of the total international equity portfolio was actively managed.
- The International Equity portfolio underperformed its custom benchmark for Fiscal Year 2017 by 97 basis points, returning 20.24% versus 21.21%. The key drivers of relative returns were the underperformance of the Emerging Markets (EM) portfolio and the underweight allocation to EM in a strong return environment. Within EM, the portfolio's underweight allocation to China adversely impacted returns as Chinese equities outperformed the broader EM universe.
- The Developed Market Equity portfolio returned 19.02% for Fiscal Year 2017, underperforming its custom benchmark return of 19.59% by 57 basis points. Sector selection adversely impacted relative returns as the portfolio's overweight allocation to more defensive sectors underperformed the broader market. The underweight allocation to the financial sector also impacted returns as the sector returned +36.5%, in response to improving bank balance sheets and financial conditions. The underweight allocation to the energy sector added value as the sector significantly underperformed the broader market.
- The EM Equity portfolio returned 22.69%, underperforming its custom benchmark return of 24.07% by 138 basis points. As noted above, the portfolio's underweight allocation to China was the primary driver of relative returns as China (up +26%) outperformed the broader market. Favorable security selection added value, particularly within Korea and South Africa. Specifically, security selection within the information technology, financial, consumer staples, and materials sectors partly offset the overall impact of country selection.

SECTOR WEIGHTING OF INTERNATIONAL EQUITY PORTFOLIO IN COMPARISON TO CUSTOM INTERNATIONAL EQUITY MARKETS INDEX AS OF JUNE 30, 2017



The top 10 holdings in the International Equity portfolio represent 12.67% of the portfolio.

TOP HOLDINGS IN INTERNATIONAL EQUITY PORTFOLIO AS OF JUNE 30, 2017

Company	% of Portfolio
ISHARES MSCI EAFE ETF	2.12
ISHARES MSCI TAIWAN ETF	1.56
SAMSUNG ELECTRONICS CO LTD	1.44
ISHARES MSCI INDIA ETF	1.33
TENCENT HOLDINGS LTD	1.27
TAIWAN SEMICONDUCTOR SP ADR	1.11
NESTLE SA	1.07
ROCHE HOLDING AG	0.98
NOVARTIS AG	0.94
ALIBABA GROUP HOLDING	0.85

FIXED INCOME HIGHLIGHTS OF FISCAL YEAR 2017

	Annualized Returns (%)			
	FY17	3 Years	5 Years	10 Years
Fixed Income with Cash, Hedges, Miscellaneous	5.14	3.92	4.20	7.43
<i>Fixed Income Blended Benchmark</i>	4.89	3.43	3.70	6.57
Governments	(2.69)	0.18	(0.51)	
<i>Custom Government Benchmark</i>	(1.97)	1.26	0.61	
Investment Grade Credit	0.67	3.13	3.27	
<i>Custom Investment Grade Credit Benchmark</i>	1.01	3.12	3.03	
Public High Yield	12.24	4.65	7.00	
<i>Bloomberg Barclays Corp High Yield Index</i>	12.70	4.48	6.89	
Global Diversified Credit (GDC)	16.46	8.02	12.10	
<i>Bloomberg Barclays Corp High Yield Index</i>	12.70	4.48	6.89	

- The Fixed Income Portfolio is comprised of the U.S. Government portfolio (including U.S. Treasuries and Treasury Inflation Protected Securities), the Investment Grade (IG) Credit portfolio, the Public High Yield portfolio, and the Global Diversified Credit (GDC) portfolio. The IG Credit and High Yield portfolios are broadly diversified (over 900 credits) across economic sectors. As of June 30, 2017, the GDC portfolio consisted of 15 limited partnerships and a portfolio of publicly traded securities.
- The Fixed Income portfolio outperformed its custom benchmark for Fiscal Year 2017 by 25 basis points, returning 5.14% versus 4.89%. The key driver of relative returns was outperformance within the GDC portfolio, offset by underperformance in the IG Credit and U.S. Government portfolios.
- GDC and Public High Yield were the top performing sectors within the Fixed Income asset class. The allocation to GDC continues to benefit from attractive risk-return investment opportunities that have arisen from regulatory changes in the lending market. Outperformance was driven by favorable returns across bank loans, middle-market lending, structured credit products and opportunistic credit mandates.
- Favorable returns within the GDC portfolio were partly offset by yield curve positioning within the U.S. Government and IG Credit portfolios. The Fixed Income portfolio was underweight long credit and emphasized long Treasuries to gain duration exposure. This structure underperformed as corporate spread curves flattened sharply and the Treasury yield curve steepened.
- The Fixed Income portfolio has outperformed its benchmark index in eight of the last 10 fiscal years, realizing outperformance of 86 basis points (annualized) over the same horizon. For a portfolio with an average balance of \$18 billion (the average balance of the Fixed Income portfolio), outperformance of 86 basis points adds an estimated \$1.6 billion of value to the portfolio over a ten-year period

PRIVATE EQUITY HIGHLIGHTS OF FISCAL YEAR 2017

	Annualized Returns (%)			
	FY17	3 Years	5 Years	10 Years
Private Equity	12.66	12.08	14.91	8.49
<i>Cambridge Associates Benchmark⁽¹⁾</i>	14.10	9.14	11.82	9.41

(1) Reported on a one-quarter lag

- As of June 30, 2017, the Private Equity portfolio, including Buyouts/Venture Capital, Debt-Related Private Equity and Opportunistic Private Equity, had a market value of \$8.2 billion and consisted of investments in 115 limited partnerships and co-investments vehicles. The Pension Fund committed a total of \$886 million to six new Private Equity partnerships in Fiscal Year 2017.
- The Private Equity portfolio is broadly diversified across a wide range of private equity limited partnerships and co-investment opportunities. Private equity investment agreements specify the investment horizon, with a wide range of possible time periods. The typical investment time period for private equity investment agreements is 10-12 years.
- During Fiscal Year 2017, the Private Equity portfolio returned 12.66%, underperforming the benchmark by 144 basis points. The co-investment and venture capital portfolios were the best performing portfolios during the fiscal year, returning 15.04% and 12.63%, respectively.
- As of June 30, 2017, the Total Value Multiple for the Private Equity Portfolio was increased from 1.45x to 1.48x, during the fiscal year. The Total Value Multiple measures the portfolio's current market value plus distributions, divided by contributions. In the case of the Private Equity Portfolio, the current value of the remaining investments plus all distributions received to date is 48% greater than the amount of contributions.
- The Pension Fund contributed \$1.07 billion to various Private Equity portfolio funds and received distributions totaling \$1.51 billion from funds in the portfolio during the fiscal year. In Fiscal Years 2016 and 2015, the Pension Fund contributed \$1.18 billion and \$1.16 billion, respectively, to various Private Equity portfolio funds and received distributions of \$1.64 billion and \$2.05 billion, respectively, from funds in the portfolio. Over the trailing six years, the Private Equity portfolio has been cash flow positive, with \$10.6 billion in distributions and \$8.4 billion in contributions.

REAL ESTATE HIGHLIGHTS OF FISCAL YEAR 2017

	Annualized Returns (%)			
	FY17	3 Years	5 Years	10 Years
Real Estate	7.79	10.06	11.36	2.92
<i>NCREIF(ODCE)⁽¹⁾</i>	7.36	10.77	11.15	6.74

(1) Reported on a one-quarter lag

- As of June 30, 2017, the Real Estate portfolio, including Equity-Related Real Estate and Debt-Related Real Estate, had a market value of \$4.5 billion and consisted of investments in 53 limited partnerships that invest in global opportunities, as well as investments in publicly traded REIT securities. The Pension Fund committed a total of \$250 million to three Real Estate partnerships in Fiscal Year 2017.

- During Fiscal Year 2017, the Real Estate portfolio returned 7.79%, outperforming the benchmark by 43 basis points.
- Within the Real Estate portfolio, non-core investment strategies added value, while favorable returns were partially offset by the impact of a strong U.S. dollar on certain non-U.S. real estate fund holdings. Approximately 40% of the Real Estate portfolio is non-U.S. dollar denominated.
- As of June 30, 2017, the Total Value Multiple for the private investments in the Real Estate portfolio increased marginally, from 1.40x to 1.41x, versus the start of the fiscal year. The Total Value Multiple measures the portfolio's current market value plus distributions, divided by contributions. In the case of the Real Estate Portfolio, the current value of the remaining investments plus all distributions received to date is 41% greater than the amount of contributions.
- The Real Estate portfolio continues to be cash flow positive. The Pension Fund contributed \$722 million to various Real Estate portfolio funds and received distributions totaling \$863 million from funds in the portfolio during the fiscal year. In Fiscal Years 2016 and 2015, the Pension Fund contributed \$664 million and \$696 million, respectively, to various Real Estate portfolio funds and received distributions of \$723 million and \$1.3 billion, respectively, from funds in the portfolio.

RISK MITIGATION STRATEGIES, CREDIT AND EQUITY-ORIENTED HEDGE FUND HIGHLIGHTS OF FISCAL YEAR 2017

	Annualized Returns (%)			
	FY17	3 Years	5 Years	10 Years
Risk Mitigation Strategies, Equity and Credit-Oriented Hedge Funds	7.99	2.20	5.84	2.98
<i>HFRI Fund of Funds Composite⁽¹⁾</i>	6.02	1.90	3.81	0.94

⁽¹⁾ Reported on a one-month lag.

- As of June 30, 2017, the composite of Risk Mitigation (Absolute Return) Strategies, Credit-Oriented Hedge Funds and Equity-Oriented Hedge Funds had a combined market value of \$5.9 billion and consisted of investments in 43 limited partnerships.
- The composite returned 7.99% and outperformed the HFRI Fund of Funds Composite by 197 basis points for the fiscal year. Favorable relative returns were driven by Event Driven and Activist strategies resulting, in part, from increased corporate actions and M&A activity.
- The Division has made significant progress in its divestiture program from all Equity-Oriented Hedge Funds and most Credit-Oriented Hedge Funds. During Fiscal Year 2017, the Pension Fund redeemed \$3.7 billion from 12 funds. The Division anticipates that the divestiture program announced in August 2016 will be completed by the end of Fiscal Year 2018.

During Fiscal Year 2017, the Pension Fund initiated and implemented a new program called Fund Alignment and Incentive Reform ("FAIR") initiative within its Risk Mitigation Strategies portfolio. Key objectives of the FAIR program are to reduce fees, enhance returns, create better alignment of interests for plan participants, offer greater transparency, and lower operating costs. The initial commitment to the FAIR program was \$500 million.

REAL ASSET HIGHLIGHTS OF FISCAL YEAR 2017

	Annualized Returns (%)		
	FY17	3 Years	5 Years
Real Assets	5.70	-3.29	-0.34
<i>Bloomberg Commodity Index Total Return</i>	-6.50	-14.81	-9.25

- As of June 30, 2017, the Real Assets portfolio is invested in 17 funds with diversified strategies and in publicly traded securities and ETFs. During Fiscal Year 2017, the Pension Fund did not make new commitments in the Real Asset portfolio.
- During Fiscal Year 2017, the Real Assets portfolio returned 5.7%, outperforming the Bloomberg Commodity Index by 1,220 basis points.
- Within the Real Assets portfolio, the Pension Fund benefited from global diversification and from partnering with managers able to capitalize on tactical opportunities within the space. Active ownership and operation of the underlying portfolio companies and investments resulted in outperformance versus passive commodity ownership.

CASH MANAGEMENT FUND

	Returns ⁽¹⁾ (%)		
	FY17	3 Years	5 Years
Cash Mgt. Fund – State Participants	0.61%	0.35%	0.26%
Cash Mgt. Fund – Non-State Participants	0.56%	0.29%	0.20%
<i>91 Day U.S. Treasury Bills (Daily)</i>	0.49%	0.23%	0.17%

⁽¹⁾ Returns represent the annual rate for the period based on the average daily rate of return.

- From December 2015 through June 2017, the Federal Open Market Committee (FOMC) raised its target for the Federal Funds rate from a range of 0% - 0.25% to a range of 1.00% - 1.25%. These increases led to higher short term rates, resulting in higher returns for Fiscal Years 2016 and 2017.
- The Non-State participants' return is reduced by an Administrative Expense Fund Fee (0.05% per year), a Reserve Fund Fee (0.01% per year) and the proportionate share of gain on investment transactions realized which is credited to the Reserve Fund. The Administrative Expense Fund Fee is used to reimburse the State of New Jersey for administrative and custodial fees of the Fund. Council Regulations provide that the Reserve Fund will be charged, to the extent that funds are available, with the proportionate share of Non-State participant losses occasioned by the bankruptcy of an issuer or any loss realized upon the sale of an investment held by the Cash Management Fund. The Reserve Fund fees are reinvested and participate in the Cash Management Fund.
- The net assets of the Cash Management Fund were \$14.3 billion as of June 30, 2017 compared to \$11.8 billion as of June 30, 2016. The difference is the result of changes in net participant deposits, which are at the discretion of the participants.

CASH MANAGEMENT PORTFOLIO ⁽¹⁾ DETAIL AS OF JUNE 30, 2017

	Percentage	(000'S)
US TREASURY OBLIGATIONS	67.35%	9,646,232
COMMERCIAL PAPER	12.57%	1,800,185
CERTIFICATES OF DEPOSIT	11.67%	1,671,886
CORPORATE BONDS	4.30%	616,358
GOVERNMENT AGENCY OBLIGATIONS	4.11%	588,598
TOTAL	100.00%	\$14,323,259

⁽¹⁾Excludes receivables and payables

COSTS OF MANAGEMENT

All investment returns for the Pension Fund and the various asset classes are reported net of external fees and costs associated with investing the assets. The Division strives to minimize cost while at the same time investing the assets in a manner that will generate attractive risk-adjusted returns. As of June 30, 2017, approximately 74% of the net assets of \$87.6 billion of all funds under Division management are managed by in-house staff at very low cost. New Jersey has one of the highest percentages of internally managed assets among all public pension funds in the United States. When the Division believes it is in the best interest of Plan participants, it employs the services of external fund managers for strategies in which the Division does not possess the resources or expertise.

The Division and the Council are both committed to demonstrating industry leadership in transparency and have been recognized for doing so. In recent years, the Division and the Council have made significant enhancements to the level of detail disclosed related to the cost of investments. Starting in Fiscal Year 2014, the Council began to include performance allocation for all investment vehicles. The Council further expanded the information provided with regard to fees, expenses and performance allocation in Fiscal Year 2015 to include information at the fund-of-fund manager level, as well as for the underlying funds, in situations where fund-of-fund structures are used. During Fiscal Year 2017, the Division completed a project to capture and report historical fees and performance allocations under a consistent reporting methodology for each of the six previous fiscal years.

While we believe the reporting enhancements improve transparency, the expanded formats are not comparable to prior Council annual reports and, therefore, comparisons to reports prior to Fiscal Year 2016 are not meaningful.

In total, costs to manage the portfolios were \$437.8 million, or 0.50% of assets under management for Fiscal Year 2017.

The Division paid \$392.2 million in management fees and expenses in Fiscal Year 2017 to managers within the Alternative Investment Program (AIP) that includes private equity funds, real estate funds, real asset funds, opportunistic funds, hedge funds and global diversified credit funds. As of June 30, 2017, the value of the AIP was \$22.9 billion.

The Division paid an additional \$28.2 million to the advisers of a portion of its emerging market equity, international small cap equity and high-yield fixed income portfolios in Fiscal Year 2017. Investments in these portfolios totaled \$6.6 billion as of June 30, 2017.

Operating expenses for staff compensation, overhead and equipment were \$12.1 million for the fiscal year, and represent about 2.8% of fees and expenses. Remaining expenses, which include fees for consulting services, custodial banking and legal services, are included in the chart below.

	Fiscal Year Ended June 30, 2017
Fees & Expenses:	
Private Equity Funds ¹	\$135.8
Hedge Funds ¹	100.0
Real Estate Funds ¹	67.9
Global Diversified Credit Funds ¹	48.5
Real Asset Funds ¹	33.9
Opportunistic Funds ¹	6.1
Subtotal	392.2
High-Yield, Small Cap and Emerging Market Advisers	28.2
Division Operations	12.1
Consulting Fees	2.3
Custodial Banking Fees	1.9
Legal Fees	1.1
Total	\$437.8 million
Total net assets under management at 6/30/17	\$87.6 billion
Cost as a percentage of assets under management	0.50%
Cost per each \$100 under management	50 cents

Total may not equal sum of components due to rounding

¹ Alternative Investment Program fees and expenses are based on information provided by the manager.

PERFORMANCE ALLOCATIONS

As noted above, the Council provides detailed information about the performance allocation earned by the managers of the funds in which the Division invests in this Annual Report, as part of its commitment to transparency. By way of background, investment fund managers may earn a performance allocation or share of the investment profits, also known as carried interest, if certain conditions and objectives are met. Typically a private equity limited partner (e.g., the New Jersey Pension Fund) must receive a preferred return, often 8%, before the general partner can collect a performance allocation. When negotiating investment agreements, the Division is committed to negotiating preferential terms that incentivize strong performance, provide the Division with meaningful governance rights, and ensure the alignment of interests.

The table below summarizes the returns, net profits earned by the Pension Fund, fees and expenses, and profit allocation for the AIP for Fiscal Year 2017. For the year, fees and expenses equated to 1.54% of estimated average gross assets, well below the frequently cited headline amount of 2%. Performance allocation was 8.66% of gross profit for the year.

(\$ in millions)

	Estimated Average Gross Assets Estimated Gross Profit Estimated Net Profit FY17 Net Return				Fees & Expenses		Profit Allocation		
					Amount	As % of Assets	Amount	As % of Assets	As % of Profit
Private Equity	\$ 7,599.3	\$ 1,124.1	\$ 898.1	12.66%	\$ 135.8	1.79%	\$ 90.2	1.19%	8.03%
Real Estate	4,679.9	488.6	347.7	7.79%	67.9	1.45%	73.0	1.56%	14.93%
Real Assets	2,139.6	160.5	124.9	5.70%	33.9	1.58%	1.6	0.08%	1.02%
Opportunistic	325.7	47.8	41.7	15.18%	6.1	1.87%	0.0	0.00%	0.00%
Hedge Funds ¹	7,469.8	758.4	592.1	7.99%	100.0	1.34%	66.3	0.89%	8.75%
Global Diversified Credit	3,290.6	584.0	492.8	16.46%	48.5	1.48%	42.6	1.30%	7.30%
Total	\$ 25,504.9	\$ 3,163.3	\$ 2,497.3	10.12%	\$ 392.2	1.54%	\$ 273.8	1.07%	8.66%

¹ Hedge Funds Profit Allocation has been adjusted to reflect \$14.1 million in accrued incentive fees that were reported as paid in Fiscal Year 2016.

COSTS ASSOCIATED WITH THE ALTERNATIVE INVESTMENT PROGRAM

The large majority of the fees and expenses for assets under management are incurred by the AIP. These types of investment vehicles are typically more complex, require greater resources, and therefore are more expensive to manage relative to traditional asset classes (e.g., public stocks and bonds). When performance allocation is included in total fees and expenses, the costs associated with the AIP are higher.

While more costly, the AIP provides important investment benefits for the Pension Fund, including a long-term performance advantage (net of all fees) on both an absolute and risk-adjusted basis, enhanced portfolio diversification, and better downside protection. Moreover, certain strategies within the AIP provide exposure to rapidly growing segments of the global market which are not investable in the public market.

The table below provides a comparison of costs associated with the AIP in Fiscal Years 2016 and 2017. As compared to 2016, fees and expenses were higher by \$14.8 million, primarily driven by an increase in fees and expenses for real estate and global diversified credit. In both cases, the Pension Fund had more capital allocated to those categories in Fiscal Year 2017 compared to Fiscal Year 2016, resulting an increase in fees and expenses. Conversely, the Fund paid \$26.9 million less in fees and expenses for hedge fund investments in Fiscal 2017 as assets in that category declined by approximately \$2.5 billion over the course of the year. Further cost savings are expected to be achieved in future fiscal years as the size of the hedge fund program is further reduced and as the Division expands its Fund Alignment Incentive Reform (FAIR) Program.

Performance allocations were \$31.8 million higher in Fiscal Year 2017 compared to Fiscal Year 2016. In the case of hedge funds and global diversified credit, significantly higher returns in Fiscal Year 2017 lead to higher performance allocations. Real estate investments also had higher performance allocations in Fiscal Year 2017, while performance allocations were lower for private equity and real assets. For many investments in the AIP, certain requirements must be met before the fund manager can collect a performance allocation. These requirements include repayment of contributed capital, management fees, and other expenses to limited partners. In addition, typically investors must receive a preferred return, often 8%, before the fund can collect a performance allocation.

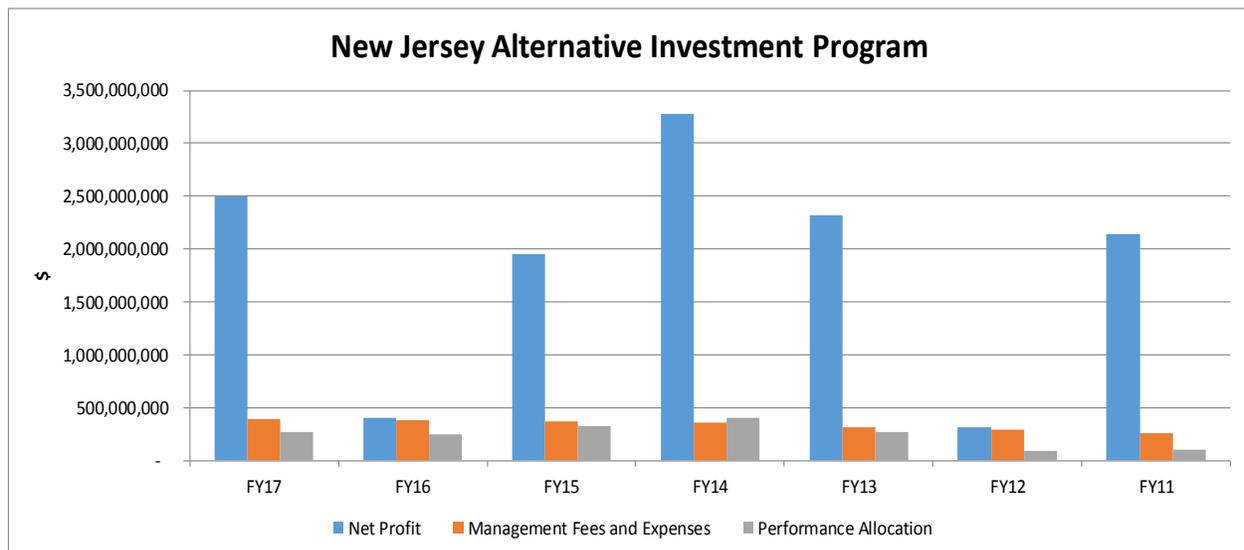
(\$ in millions)	Fiscal Year 2016	Fiscal Year 2017	Year over Year Change*
Fees and Expenses	\$ 377.5	\$ 392.2	\$ 14.8
Performance Allocation	\$ 242.0	\$ 273.8	\$ 31.8
Estimated Net Profit	\$ 405.4	\$ 2,497.3	\$ 2,091.8

* May not equal difference of components due to rounding

See Appendix 1 for additional year-over-year comparisons.

For Fiscal Year 2017, the AIP earned a net return of 10.12% and generated \$2.5 billion of net profits. The AIP has been a significant driver of the Fund's performance in recent years. Over the five years ending June 30, 2017, the AIP has returned 9.23%, outperforming the Total Fund excluding the AIP by 84 bps per year. For a portfolio with an average balance of \$23.6 billion (the average balance of the AIP program), outperformance of 84 basis points adds an estimated \$1.0 billion of value to the portfolio over a five year period. The AIP has also outperformed a portfolio of 70% stocks and 30% bonds by 105 bps per year over the past 5 years.

As shown in the table below, the AIP has generated \$12.9 billion of net profit after all management fees, expenses and performance allocation over the past seven fiscal years.



REPORTING STANDARDS AND COMPARISONS TO OTHER FUNDS

Public pension funds do not have a uniform standard for the reporting of investment fees and expenses, including performance allocations. As a result, comparisons to other public funds may not be meaningful because most other funds elect not to provide the same level of disclosure or their managers may not believe it is appropriate to include performance allocations as part of an expense report. In addition, since 2015 the Council has included fees and performance allocations for both the fund-of-fund manager level and for the underlying funds in such structures, while other investors may not do so. Accordingly, it is likely that the Council reports more types of costs and, therefore, higher costs than other funds, while the NJ Pension Fund may actually incur lower costs than those same funds.

COMMISSIONS

The Division incurred broker/dealer commission costs totaling \$18.8 million for Fiscal Year 2017. The brokerage commission total includes \$3.8 million in "soft dollar" commissions used to procure systems and services critical to the Division's trading and research.

The Division purchases and sells certain investments with no involvement by a broker/dealer, including commercial paper, certificates of deposit, foreign currency transactions and investments in alternative investment funds by transacting directly with the issuer, partnership or fund; as a result, no direct commissions are paid.

Appendix 1: Five Year Cost Comparison

	Fiscal Year Ended June 30, 2017	Fiscal Year Ended June 30, 2016	Fiscal Year Ended June 30, 2015	Fiscal Year Ended June 30, 2014	Fiscal Year Ended June 30, 2013
Fees and Expenses:					
Hedge Funds	\$ 99,974,409	126,880,195	141,737,524	142,913,986	114,621,629
Private Equity Funds	135,822,473	132,287,674	126,561,769	131,559,403	112,853,088
Real Estate Funds	67,920,674	50,751,772	47,764,490	44,625,247	58,964,117
Real Asset Funds	33,901,880	26,914,795	21,908,944	17,793,180	13,632,401
Opportunistic Funds	6,082,764	7,019,900	3,762,715	N/A	N/A
Global Diversified Credit Funds	48,538,827	33,600,719	31,292,645	18,020,664	15,805,153
Division Operations and Investment Advisor Fees ¹	45,578,113	39,675,226	42,634,420	44,142,172	35,652,094
Total Fees and Expenses	437,819,141	417,130,281	415,662,506	399,054,651	351,528,482
Performance Allocation:					
Hedge Funds	66,331,578	55,307,643	128,180,329	162,339,457	174,165,115
Private Equity Funds	90,228,372	109,485,871	125,663,807	99,552,572	70,958,980
Real Estate Funds	72,966,276	49,204,152	50,318,243	50,153,959	17,486,697
Real Asset Funds	1,632,938	11,587,460	3,619,892	4,990,119	1,473,062
Opportunistic Funds	-	-	-	N/A	N/A
Global Diversified Credit Funds	42,642,060	16,396,283	20,602,969	84,284,502	8,238,404
Total Performance Allocation	273,801,224	241,981,410	328,385,240	401,320,609	272,322,258
Total Fees, Expenses, Performance Allocation	\$ 711,620,365	659,111,691	744,047,746	800,375,260	623,850,740

Performance	FY 2017	FY 2016	FY 2015	FY 2014	FY 2013
Hedge Funds	7.99%	(5.13%)	4.21%	10.53%	12.57%
Private Equity Funds	12.66%	6.27%	17.61%	24.01%	14.74%
Real Estate Funds	7.79%	9.86%	12.57%	13.90%	12.81%
Real Asset Funds	5.70%	(4.39%)	(10.50%)	9.66%	(5.34%)
Opportunistic Funds	15.18%	(0.92%)	11.42%	N/A	N/A
Global Diversified Credit Funds	16.46%	3.32%	4.74%	18.38%	18.64%
Total Alternative Investment Program	10.12%	1.60%	7.80%	15.07%	12.04%
Total Non-Alternative Investment Portfolio	14.37%	(2.26%)	2.24%	17.46%	11.42%

Alternative Investment Portfolio Net Profit (\$) 2,497,253,176 405,411,118 1,949,148,666 3,273,766,736 2,319,263,575

Percentage of Net Assets Internally Managed ¹ 74% 72% 72% 74% 76%

¹ Costs include Division operations, consulting fees, legal fees, custodial banking fees, and fees related to external investment advisors for emerging markets equity and high yield. Emerging market and high yield assets managed with the support of external investment advisors are considered internally managed.