Investment Section

COMMONWEALTH OF PENNSYLVANIA
PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM

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Chief Investment Officer

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Dear Members of The PSERS Board of Trustees:

It is a privilege to present to you the Investment Section of the Comprehensive Annual Financial Report for the fiscal year ended June 30, 2015.

Authority and Fiduciary Standard

The Board has the responsibility to invest funds of the System in accordance with guidelines and limitations set forth in the Code and other applicable state law. As fiduciaries, the members of the Board and Staff must act solely in the interests of the members of the System and for the exclusive benefit of the System's members. In performance of their duties, the members of the Board and Staff who have been delegated with investment authority shall be held to the Prudent Investor Standard.

The Prudent Investor Standard, as articulated in the Code, means "the exercise of that degree of judgment, skill, and care under the circumstances then prevailing which persons of prudence, discretion, and intelligence who are familiar with such matters exercise in the management of their own affairs not in regard to speculation, but in regard to the permanent disposition of the fund, considering the probable income to be derived therefrom as well as the probable safety of their capital."

The Prudent Investor Standard requires a trustee to act prudently and with caution, discretion, loyalty, and care but does not restrict the assets in which the Board can invest. Under the Prudent Investor Standard, which recognizes modern portfolio theory, the Board's investment and management decisions with respect to individual assets shall be considered in the context of the portfolio as a whole and as part of an overall investment strategy, and not in isolation. No specific investment or course of action, taken alone, shall be considered inherently prudent or imprudent. This Standard recognizes the trade-off between risk and return.

Policies and Objectives

The Board is responsible for the formulation of investment policies for the System. Staff is responsible for the implementation of those investment policies. The overall investment objectives of the System are as follows:

Return Objectives – the System has a return objective of meeting or exceeding the targeted actuarial rate of return of 7.5% over the long-term. In addition, the Board has the following broad objectives:

1. The assets of the System shall be invested to maximize the returns for the level of risk taken; and,
2. The System shall strive to achieve a net of fee return that exceeds the Policy Index (the Policy Index is a custom benchmark, based on the Board-established asset allocation structure that seeks to generate a return that meets the actuarial rate of return assumption).

Risk Objectives

1. The assets of the System shall be diversified to minimize the risk of losses at the portfolio level and within any one asset class, investment type, industry or sector distribution, maturity date, or geographic location. Failure to do so could impair the System's ability to achieve its funding and long-term investment goals and objectives; and,
2. The System's assets shall be invested so that the probability of investment losses (as measured by the Policy Index) in excess of 15% in any one year is no greater than 2.5% (or two standard deviations below the expected return).

To achieve these objectives, the Board meets during the first half of the calendar year to review the overall asset allocation plan and investment policies for the System. Implementation of investment policies is accomplished through the use of external investment management firms who act as agents for the System and through the use of internal investment managers. The Board also retains various investment consultants to assist with the formulation and implementation of investment policies.

Operations

The Board, via its Finance Committee, provides oversight of investment activities. The Finance Committee generally conducts seven meetings per year and may meet more frequently as needed. Investment Office staff, as well as external investment advisors, Investment Accounting staff, and Internal Audit staff, assist the Board in achieving investment objectives and monitoring compliance with investment policies. For the fiscal year ended June 30, 2015, Aon Hewitt Investment Consulting, Inc. (Aon Hewitt) served as the general investment consultant to assist the Board and Staff in formalizing investment objectives, establishing an asset allocation plan, conducting investment advisor searches, reviewing performance, and commenting on compliance with investment policies. In addition, the Board retained Aksia, LLC as an absolute return consultant, Courtland Partners, Ltd. as a real estate consultant, and Portfolio Advisors, LLC as an alternative investment consultant. Alternative investments generally consist of investments in private debt, private equity, and venture capital limited partnerships. Investment Office staff implement the investment decisions within the guidelines established in the Investment Policy Statement, Objectives and Guidelines regarding asset allocation, manager selection, security selection, and other objectives directed by the Board.

The Board employs both external investment management firms and internal investment managers to manage the investment portfolio of the System. At fiscal year-end, 35 external public market investment management firms were managing $16.5 billion in assets of the System, $16.9 billion in assets were managed by the System's internal investment managers, and the remaining $17.2 billion in assets were managed by numerous alternative investment and real estate investment managers. The performance of each external investment management firm and each internal manager is monitored quarterly against a pre-established benchmark as well as the performance of the manager's peer group.

Asset Allocation

The Board reviews the long-term asset allocation targets of the System annually. The Board will consult with its actuary, consultants, Investment Office staff, and other sources of information it deems appropriate in formulating the asset allocation plan. The level of risk assumed by the System is largely determined by the Board's strategic asset allocation plan. The Board, in determining its long-term asset allocation, takes the following factors into consideration:

- The System's investment time horizon;
- The demographics of the plan participants and beneficiaries;
- The cash flow requirements of the System;
- The actuarial assumptions approved by the Board;
- The funded status of the System;
- The employers' (Commonwealth and school districts) financial strength; and,
- The Board's willingness and ability to take risk.

In approving the asset allocation for the System that is recommended by Investment Office staff and PSERS' general investment consultant, the Board considers capital market expectations for expected return, volatility, and asset class correlations as prepared by its general investment consultant. The current long-term, top-down asset allocation targets of the Board are discussed in the following paragraphs.

The current target allocation as of June 30, 2015, included an equity target allocation of 39.0% consisting of publicly traded stocks (23.0%) and private markets (16.0%). Specific publicly traded stock targets have been established for U.S. equity (9.0%) and non-U.S. equity (14.0%). Within the U.S. equity target, the portfolios are diversified between large and small capitalization investment mandates, and growth and value investment exposures. The non-U.S. equity exposure includes both developed and emerging markets portfolios as well as large and small capitalization investment mandates. The non-U.S. developed markets equity exposure is currency-hedged back to the U.S. Dollar. The primary vehicle used to invest funds in private markets is the limited partnership. The partnerships are established by individual management groups that have been selected by the System for the purpose of investing in and managing private equity, venture capital, and unlisted subordinated debt positions on behalf of PSERS and other limited partners.

The fixed income target allocation of 23.0% consisted of investment grade exposure (6.0%), credit-related exposure (8.0%), inflation-protected exposure (6.0%) and cash (3.0%). Investment grade exposure consisted of U.S. core fixed income (5.0%) and non-U.S. developed market fixed income (1.0%). Credit-related exposure consisted of high yield (6.0%) and emerging markets fixed income (2.0%). Inflation protected exposure consisted of leveraged Treasury Inflation-Protected Securities (TIPS) which provides approximately two times exposure to TIPS. Within these categories, all sectors of the fixed income market are represented. The high yield exposure is primarily private debt. The System also gains incremental fixed income exposure through U.S. Long Treasury securities funded primarily through leverage equating to approximately 3.0% of the System's assets (not included in the fixed income target allocation). The cash consisted of short-duration, high quality government and investment grade securities. The Board, Investment Office Staff, and Aon Hewitt deemed it prudent to have an allocation to cash given the known and potential cash flow requirements of the System.

The real asset exposure of 21.0% consisted of real estate (13.0%), master limited partnerships (4.0%), and commodities (4.0%). The real estate allocation consisted primarily of limited partnerships. The types of partnerships the System invests in include core, value-added, and opportunistic real estate limited partnerships. The commodities allocation consisted primarily of commodity futures and commodity and commodity-related publicly traded stocks. Commodities are included in the allocation to diversify the System's total portfolio risk. The System also gains incremental commodity exposure through Gold swaps funded primarily through leverage equating to approximately 2.0% of the System's assets (not included in the commodity target allocation). The Master Limited Partnership (MLP) allocation consisted of publicly traded partnerships that own and operate assets such as natural gas, crude oil, refined products and pipelines, and storage facilities that are a vital part of the U.S. energy infrastructure. MLPs are included in the allocation due to their attractive current yields, strong growth potential, and ability to diversify the System's total portfolio risk.

The absolute return target allocation of 10.0% consisted primarily of investment managers retained by the System to generate positive returns over time that are independent of how the equity, fixed income, and commodity markets perform. Strategies implemented to achieve this target include, but are not limited to, global macro, event-driven, and relative value strategies such as insurance-linked securities and long/short credit. The absolute return program is included in the allocation to generate returns equal to or greater than LIBOR plus 3.5% with low correlation to the public financial markets to diversify the System's total portfolio risk.

The risk parity allocation of 7.0% consisted primarily of global equities, global nominal bonds, global inflation-linked securities, and commodities in an allocation that balances risk across these asset classes with structurally offsetting biases to the primary drivers of asset class returns, growth and inflation. Risk parity provides diversification and liquidity to the System.

Liquidity and Asset Allocation

The System's risk profile is, in part, driven by its liquidity needs. During each of the past five fiscal years, the System has paid out over $2.5 billion more in benefits than it has received in member and employer contributions. This funding deficiency has amounted to 5.0% or more of beginning net assets each of the last five years and represents the amount of investment return needed each year to make up the shortfall. The large annual cash flow shortfall will continue and necessitates a larger liquidity position and lower risk profile than a retirement system that has smaller liquidity requirements. Given the legislated reduction in the employer contribution rate, which is expected to continue for another year or two, the System anticipates only a modest liquidity improvement until the employer contribution rate rises to the actuarially required level.

Given the significant cash outflows projected, the Board has prudently reduced the risk profile of the System since the financial crisis in 2008. It has done so by decreasing its return dependence on the equity markets and balancing the risk exposures into less correlated asset classes such as inflation-linked bonds, commodities, and absolute return. The goal of such an allocation is to generate the desired return profile with less volatility. While such an allocation will not provide for a large upside in returns, it is expected to minimize downside risks to the System's assets in the event of a large equity drawdown as experienced during the financial crisis in 2008.

The Economy During The Past Fiscal Year

The U.S. Economy

The U.S. economy during the past fiscal year generated positive but tepid results given the low interest rates and amount of monetary stimulus injected into the economy through quantitative easing by the Federal Reserve (Fed). The U.S. real Gross Domestic Product (GDP) increased by 4.3%, 2.1%, 0.6%, and 3.7% in the third quarter 2014, fourth quarter 2014, first quarter 2015, and second quarter 2015, respectively. The official unemployment rate (otherwise known as the U3 unemployment rate) fell during the fiscal year from 6.1% as of June 2014 to 5.3% as of June 2015, approaching what the Fed would consider full employment. The more encompassing U6 unemployment rate, which measures not only people without work seeking full-time employment (U3 unemployment rate) but also counts "marginally attached workers and those working part-time for economic reasons" remains elevated at 10.5% as of fiscal year end, down from 12.0% at the end of the last fiscal year but significantly above the low point over the past 10 years of 7.9% in December 2006. However, the U.S. Labor Participation Rate (LPR), which measures the total labor force as a percentage of the working age population, remains depressed. The LPR dropped from 62.8% in June 2014 to 62.6% in June 2015 which explains some of the improvement in the official unemployment rate. The LPR was as high as 67.3% in March 2000. If the LPR were at 2000 levels today, the official unemployment rate would probably be significantly higher.

The Fed has had extremely accommodative monetary policies since the 2008 financial crisis to support asset prices and economic growth in the United States. The Federal Funds target rate has been in a range between 0.0% to 0.25% all year and has been that low since December 2008. The Fed's program of outright purchases of longer dated U.S. Treasuries in the amount of $45 billion a month and mortgage-backed securities in the amount of $40 billion began in 2013. The Fed's objective was to lower the cost of borrowing money so that the economy, housing, and employment conditions could continue to improve. This program of buying assets, which began in varying forms in 2008, saw the Fed's balance sheet increase from $910 billion in August 2008 to $4.4 trillion in June 2014 and has now stabilized around $4.5 trillion in June 2015. Given the improvement in economic growth and the unemployment rate, the Fed started tapering these purchases in December 2013 by $10 billion per meeting. The asset purchase program ended in October 2014. While interest rates remain very accommodative, this tapering represents a mild tightening to monetary conditions in the United States. In addition, the Fed has been signaling to the markets that it is considering increasing the Fed Funds target rate later in 2015.

Inflation in the United States, even with improving economic conditions and very accommodative interest rates, remains well below the Fed's target inflation rate of 2.0% as the burdens of high global debt create a more deflationary environment worldwide. The U.S. Core Consumer Price Index (CPI) was 2.1% year over year as of June 2014 and decreased over the year to 0.1% as of June 2015. Housing during the past fiscal year has continued to show improvement, up 4.5% as measured by the S&P Case-Shiller 20-City Home Price Index after being up 8.1% last fiscal year.

Select Non-U.S. Economies

The Eurozone economy during the past year remained very weak and on the verge of recession. The Eurozone real GDP increased by 0.2%, 0.4%, 0.4% and 0.3% in the third quarter 2014, fourth quarter 2014, first quarter 2015, and second quarter 2015, respectively. The Eurozone unemployment rate, while falling modestly during the fiscal year from 11.6% as of June 2014 to 11.1% as of June 2015, remains very elevated. Inflation for the Eurozone has fallen from 0.6% on a year over year basis in June 2014 to 0.2% in June 2015 and is getting uncomfortably close to deflation. Economic conditions remain very depressed in the Eurozone as fiscal and monetary conditions on the whole have not been loose enough to generate any real improvements in economic growth and employment. The European Central Bank (ECB) launched a $1.2 trillion quantitative easing program in March 2015 to combat weak inflation conditions. The ECB will print about $72 billion a month in euros and use the new money to buy bonds. The ECB has committed that this program will continue through September 2016 or longer if necessary until inflation expectations reach the ECB's 2.0% target. Impacts of this policy were felt quickly as the Euro currency depreciated 7.8% against the U.S. Dollar from January 1, 2015 to June 30, 2015 while the EURO STOXX 50 Index, an index of 50 Eurozone stocks, increased by 8.8% during the same period.

During the past fiscal year, the Japanese economy has weakened. The Japanese real GDP increased/(decreased) by (0.7%), 0.8%, 2.2%, and 0.0% in the third quarter 2014, fourth quarter 2014, first quarter 2015, and second quarter 2015, respectively. The Japanese unemployment rate remains very well contained, falling from a modest 3.7% in June 2014 to 3.5% in June 2015. Inflation for Japan has moderated significantly during the past fiscal year from a 3.6% year over year rate in June 2014 to 0.4% in June 2015. Japanese policy makers have been aggressively trying to stimulate their economy through a combination of low interest rates (near 0.0%), purchase of higher risk assets by the Bank of Japan, coordinated diversification into higher risk assets by large public investors, and other fiscal policies to encourage liquidity to move into riskier assets. While economic conditions have improved in Japan after years of stagnant growth and low inflation, time will tell if the necessary economic and structural reforms can be put in place for a sustained period of economic prosperity.

The Chinese economy during the past year continued to be one of the stronger economies in the world, albeit at a slowing pace of growth. The Chinese real GDP increased by 7.3%, 7.3%, 7.0%, and 7.0% in the third quarter 2014, fourth quarter 2014, first quarter 2015, and second quarter 2015, respectively. Inflation in China has fallen from 2.3% on a year over year basis in June 2014 to 1.4% in June 2015 and appears fairly stable but weakening. China is struggling to rebalance its economy from an investment oriented economy to a consumer oriented economy. About 47% of China's GDP is generated by investments in infrastructure; however, that level of investment is unsustainable. Average investments as a percentage of GDP in emerging markets is 28% while only 19% in developed markets. It is increasingly apparent that this rebalancing will weigh on GDP growth over the next several years as Chinese policy makers endeavor to rebalance the economy. Subsequent to the fiscal year-end, China has shown notable signs that its economy is weakening.

Investment Results

This past fiscal year was a mixed year to be invested in higher risk assets with modestly positive returns to equities (in currency hedged terms) while commodity and commodity-related securities struggled. The fiscal year was marked by falling global growth and inflation expectations coupled with a modest increase in risk premiums. The global economy is still burdened by high debt levels which has the effect of constraining growth and is generally deflationary. Global monetary conditions have been very accommodative with most countries easing this past year, including implementation of quantitative easing programs by central banks in Europe and Japan. A notable exception was the U.S. which has ended quantitative easing during the past fiscal year and is contemplating increasing interest rates later in 2015. The low-volatility environment in the fiscal year ended in 2014 as measured by the Chicago Board Options Exchange Volatility Index (VIX Index), an index which reflects a market estimate of future volatility, has changed toward the end of the current fiscal year. The VIX Index increased from 11.57 at June 30, 2014 to 18.23 at June 30, 2015. As a point of reference, during the financial crisis the VIX Index peaked on a monthly basis at 59.89 in October 2008. On a risk-adjusted basis, U.S. long treasuries had the best performance during the past fiscal year as falling inflation expectations led to lower yields and higher bond prices. Commodities, the riskiest asset class, had the worst performance during the past year as increasing risk premiums, falling growth and inflation expectations negatively impacted returns. Unless otherwise noted, all rates of return are based on time-weighted return methodology. Highlights of the System's fiscal year performance follow.

As of June 30, 2015, the fair value of the investment portfolio was $50.6 billion, a decrease of $2.3 billion from last year's value. This decrease was primarily due to the combination of net investment income ($1.3 billion) and member and employer contributions ($3.7 billion) which was less than the deductions for benefits and administrative expenses ($6.7 billion) and net changes in other investment assets and liabilities ($0.6 billion). The investment portfolio, as invested, was composed of 24.4% common and preferred stocks (equities), 22.7% fixed income investments, 15.9% alternative investments, 12.9% real estate, 9.4% absolute return portfolios, 4.0% commodities, 3.5% master limited partnerships, and 7.2% risk parity at June 30, 2015. The table immediately following this letter illustrates a more detailed description of the investment portfolio's asset classes in dollars and as a percentage of the total investment portfolio.

The MSCI U.S. Investable Market Index, a U.S. equity index, returned 7.36% during the fiscal year. Returns for the second and third quarters of the fiscal year were stronger, posting a 5.12% and 1.86% return, respectively. Returns for the first and fourth quarters of the fiscal year were weaker, posting 0.02% and 0.25%, respectively. Foreign markets, in U.S. Dollar terms, were roughly in line with the U.S. markets as the MSCI All-Country World (ACW) ex. U.S. Investable Market Index hedged, an international equity index with developed market currencies hedged back to the U.S. Dollar, returned 6.94% for the fiscal year, driven primarily by accommodative monetary policies and more stable economic conditions. The Burgiss Median return, a benchmark for alternative investments that represents the median performance of the venture capital/private equity industry listed in the Investment Benchmark Reports on Venture Capital and buy-outs produced by the Burgiss Group, returned 4.29% for the fiscal year (reported on a one-quarter lag).

Commodity markets performed very poorly in this environment as global economic expectations for growth and inflation fell. For the fiscal year, the Bloomberg Commodity Index, an index composed of futures contracts on 19 physical commodities weighted to account for economic significance and market liquidity, was down 23.71%.

The following table provides the System's total time-weighted investment returns for each major asset class and the total portfolio, including, where applicable and available, respective benchmark indexes used by asset class and median performance by asset class:

	Annualized Total Returns (%) Net of Fees Ended June 30, 2015			
	1 Year	**3 Years**	**5 Years**	**10 Years**
PSERS Total Portfolio	**3.04**	**8.52**	**9.73**	**6.31**
Total Fund Policy Index	2.02	6.24	7.27	4.86
Median Public Defined Benefit Plan (DBP) Fund Universe (Aon Hewitt Database)	3.16	10.50	10.60	6.40
PSERS U.S. Equity Portfolios	**6.53**	**17.61**	**17.47**	**7.82**
U.S. Equity Policy Index (1)	7.36	17.72	17.46	8.17
PSERS Non-U.S. Equity Portfolios	**9.31**	**14.38**	**11.14**	**8.46**
Non-U.S. Equity Policy Index (2)	7.79	14.14	10.54	7.32
PSERS Fixed Income Portfolios (10)	**1.93**	**4.74**	**7.05**	**6.77**
Fixed Income Policy Index (3)	-1.19	1.61	4.61	5.61
PSERS Commodity Portfolios (10)	**-18.65**	**-6.21**	**-1.18**	**N/A**
Commodity Policy Index (4)	-19.59	-7.15	-2.89	N/A
PSERS Absolute Return Portfolios	**4.30**	**4.87**	**6.04**	**N/A**
Absolute Return Policy Index (5)	3.76	6.24	6.84	N/A
PSERS Risk Parity Portfolios (11)	**-0.86**	**4.99**	**N/A**	**N/A**
Risk Parity Policy Index (6)	-0.81	3.98	N/A	N/A
PSERS Master Limited Partnership (MLP) Portfolios	**-10.14**	**18.76**	**20.62**	**N/A**
Standard & Poor's MLP Index	-16.48	10.54	13.32	N/A
PSERS Real Estate (7)	**13.92**	**12.92**	**13.31**	**4.99**
Blended Real Estate Index (8)	14.32	11.71	12.51	8.16
PSERS Alternative Investments (7)	**2.63**	**8.97**	**10.92**	**11.49**
Burgiss Median, Vintage Year Weighted Index (9)	4.29	4.84	5.37	4.87

1. MSCI USA Investable Market Index effective April 1, 2009; previously was the Dow Jones Wilshire 5000 Index.
2. MSCI ACWI ex USA IMI with DM 100% Hedged to USD (Net) Index effective October 1, 2014. From July 1, 2008 to September 30, 2014, the index was the MSCI All Country World (ACW) ex. USA Investable Market Index. Before July 1, 2008, the MSCI ACW ex. U.S. Index was used. The benchmark was 30% hedged to the U.S. dollar from July 1, 2006 to March 31, 2009.
3. Returns presented are a blend of the Barclays Capital U.S. Aggregate Index (17.2%), Barclays Capital Global Aggregate GDP Weighted Dev x U.S. (Unhedged) Index (3.5%), Barclays Capital Emerging Mkt 10% Country Cap Index (6.9%), Barclays Capital U.S. Treasury Long Index (10.3%), Barclays Capital U.S. High Yield Index (20.7%), and Barclays Capital U.S. TIPS Index (41.4%) effective July 1, 2013. Prior to July 1, 2013, the blend was Barclays Capital U.S. Universal Index (24.7%), JP Morgan GBI EM Global Diversified Index (9.4%), Barclays Capital U.S. High Yield Index (28.2%), Barclays Capital Multiverse Index (14.1%), and Blended Policy (Net Levered TIPS) (23.6%).
4. Returns presented are a blend of the Bloomberg Commodity Gold Index (33.3%) and the Bloomberg Commodity Index (66.7%). On July 1, 2014, the indices names were changed from DJ/UBS to Bloomberg. The returns have been adjusted for leverage.
5. Three month LIBOR +3.50% effective July 1, 2014. Previously, was based on the assumed actuarial rate of return for the Fund which was 8.0% from July 1, 2009 through June 30, 2011. The assumed rate changed to 7.5% on July 1, 2011 and was used as the Absolute Return Policy Index through June 30, 2014.
6. Effective July 1, 2014 returns presented are a blend of MSCI ACW Index ($Net) (50%); Barclays Capital U.S. Treasury Index (75%); Barclays Capital World Inflation Linked Bond Index Hedged (55%); Bloomberg Commodity Index (Total Return) (15%); Bloomberg Gold Subindex (5%); and 3-Month LIBOR (-100%). The weights to these indices have varied in previous quarters. The returns have been adjusted for volatility.
7. Returns reported on a one-quarter lag, except for publicly traded real estate security investments.
8. Effective April 1, 2015, comprised of a blended benchmark consisting of the National Council of Real Estate Investment Fiduciaries (NCREIF) – Open End Diversified Core Equity (ODCE) Index and Burgiss Private iQ (for Value-Added Real Estate and Opportunistic Real Estate) reported on a one-quarter lag. For periods between April 1, 2010 and March 31, 2015, the benchmark was comprised of a blended benchmark of NCREIF-ODCE (core) and various private real estate benchmarks for Value-Added and Opportunistic (including NCREIF-Closed-End Value-Added (CEVA), NCREIF/Townsend and NCREIF-NPI) reported on a one-quarter lag. For all prior periods, the benchmark was comprised of a blended benchmark strategically split between public/private using various public REIT indices (FTSE EPRA/NAREIT Global Real Estate, Wilshire Real Estate Securities and Wilshire REIT) and NCREIF-NPI (for all non-core) reported on a one-quarter lag.
9. Burgiss Median, Vintage Year Weighted Index effective January 1, 2011. Previously, the Thompson ONE, Vintage Year Weighted Index was used. Returns reported on a one-quarter lag.
10. Returns are presented on an unleveraged basis for comparability purposes to the Policy Index.
11. Returns are presented on a volatility-adjusted basis for comparability purposes to the Policy Index.

Fixed income markets were generally mixed as interest rates fell even with the headwind of slight monetary tightening in the U.S. from an ending of quantitative easing by the Fed. For the fiscal year, the Barclays U.S. Aggregate Index, a U.S. fixed income index, was up 1.86% as the yield curve fell from the June 2014 level. The Barclays Global Aggregate GDP Weighted Developed Market ex. U.S. Index (Unhedged), a non-U.S. fixed income index, was down 14.08% due primarily to non-U.S. currencies weakening significantly vs. the U.S. Dollar. The Barclays High Yield Index was down 0.40% during the past fiscal year due to a slight widening of credit spreads. The Barclays U.S. TIPS Index, an index of U.S. Treasury Inflation Protection Securities, driven by rising real yields, had a negative return of 1.73% for the fiscal year.

To benchmark real estate performance, the System uses a blended benchmark consisting of the National Council of Real Estate Investment Fiduciaries (NCREIF) – Open End Diversified Core Equity (ODCE) Index and Burgiss Private iQ (for Value-Added Real Estate and Opportunistic Real Estate) starting the first calendar quarter of 2015. Previously, the System used a blend of various real estate indices more fully discussed in footnote 8 on page 77. The indices are designed to reflect the performance of funds available to U.S. institutional investors, including private real estate/equity-oriented investments, without regard to geographic location. The combined performance of the NTF Index and Burgiss Index was 14.32% during the past fiscal year. Index returns are reported on a one-quarter lag due to the time taken to acquire this information from private market sources, so this return is for the twelve months ended March 31, 2015. Investment performance in the private real estate markets has continued to rebound from significant declines sustained during the credit crisis in 2008.

The absolute return program had an above target fiscal year generating a total return of 4.30%, 54 basis points above its target return of LIBOR + 3.50% (3.76%). Performance was driven primarily by strong returns in reinsurance and global macro funds during the year offset somewhat by weak performance in event driven strategies. The absolute return program is structured to have low beta to the equity, fixed income, and commodity markets and to provide additional diversification from the remainder of the asset allocation. These objectives were achieved by the program.

The risk parity program was down 0.86%, 5 basis points below the policy index for this program. The risk parity managers take a balanced risk approach to portfolio construction, leveraging up low risk assets such as nominal and inflation-linked bonds to an equivalent risk level as higher risk asset classes such as equities and commodities and then balancing the risks in constructing their portfolios. Risk parity had flat performance for the past fiscal year due to negative returns generated from increasing risk premiums demanded by investors.

The master limited partnership (MLP) portfolio traded down in sympathy with the commodity market during the fiscal year, with a negative return of 10.14%, as the market started discounting slower growth and potentially slower dividend growth during the year. For the fiscal year, the MLP market, as measured by the Standard & Poor's MLP Index, was down 16.48%.

For the one-year period ended June 30, 2015, the System generated a total net of fee return of 3.04%. This return exceeded the total fund Policy Index return of 2.02% by 102 basis points. Annualized total net of fee returns for the three-, five-, and ten-year periods ended June 30, 2015 were 8.52%, 9.73%, and 6.31%, respectively. The three-, five- and ten-year returns ended June 30, 2015 exceeded the total fund Policy Index returns by 228, 246, and 145 basis points, respectively.

Aon Hewitt calculates the total investment return of the System as well as the performance of each external investment management firm and each internal investment manager retained by the Board to invest the System's assets. Performance is calculated using a time-weighted return methodology.

The System also participates in a securities lending program administered by Deutsche Bank AG. This program is designed to provide incremental income to the System by lending securities in the System's portfolio to securities dealers in exchange for cash collateral, which can be reinvested to generate income, or non-cash collateral plus a cash fee. This program generated $9.0 million in net gains during the year.

Accomplishments

The biggest accomplishment of fiscal year 2015 was the sale of approximately $2.0 billion in alternative investments in the secondary market. The purpose of this sale was to bring the amount invested in alternative investments down closer to the System's long-term allocation target of 15.0%. In addition, this will allow the System to be more liquid prospectively since the proceeds from the sale were re-invested in the public markets. The strength of the U.S. equity market over the past six years and strong investor demand for higher risk/higher expected return assets presented the Investment Office staff with the opportunity to execute a sale of this size (one of the largest sales in the world in calendar year 2014). I appreciate all of the efforts of our Board, Investment Office staff, the System's Legal staff, Greenhill Cogent, LP, our external financial advisor on this transaction, and Proskauer Rose LLP , our external legal advisor on this transaction.

I continue to be proud that collectively the Board, the Investment Office staff, external investment managers, and the System's consultants (collectively, the "Investment Team") contributed to generating dollar returns in excess of the passive Policy Index of over $500 million, net of all fees and expenses. If the Board succumbed to the pressure of passively managing the portfolio, the System would have billions of dollars less in assets than it does today. Over the past ten years, the System has generated approximately $7.7 billion in excess of the dollar returns that would have been generated from the passive Policy Index. In fact, the System has exceeded its Policy Index in 8 of the past 10 years (28 of the past 40 quarters). Many people mistakenly associate higher management fees with lower investment returns. When a manager generates investment returns, net of fees and expenses, in excess of the passive index returns, their fees can generally be justified as long as those returns were accomplished in a risk-controlled fashion. PSERS' investment program utilizing active management has been successful due to the wisdom of the System's Board in giving Investment Office staff the latitude to use active managers and the skill of PSERS' Investment Team in choosing active managers in those areas where staff believe inefficiencies exist and the System has a demonstrable edge in manager selection. In those areas that staff believes are efficient or where staff does not believe PSERS has a demonstrable edge in manager selection (i.e. U.S. equities), the System will generally internally manage those assets in passive index funds. In addition, the Investment Team will terminate those managers underperforming their benchmarks over time should staff believe that they no longer have an investment edge or are incurring too much risk. Just as investment managers are actively managing portfolios, the Investment Team is actively managing managers. Should PSERS no longer be successful using active management, for whatever reason, PSERS has a very capable and competent team of investment professionals at the System who can manage assets internally at very competitive costs.

Summary

The System had positive returns of 3.04% during the fiscal year ended June 30, 2015 which was in excess of the Policy Index return of 2.02%. This excess return amounted to an incremental income for the System of over $500 million. Over the past three- and five-year periods ended June 30, 2015, the System returned 8.52% and 9.73%, both in excess of the System's Policy Index. The continued monetary support of low interest rates and quantitative easing outside the United States should continue to provide some support to financial assets prospectively. However, this support over the past few years has driven up the current value of asset prices while the underlying cash flows have not materially changed, meaning that financial assets are more expensive today and have lower expected returns over the next decade. In addition, all of the monetary support has provided stability in financial markets as evidenced by a lack of a material correction of 15% or more in the U.S. equity market for over 900 days and counting. The concerns going forward include building a portfolio with the opportunity to achieve the assumed actuarial rate of return without incurring unacceptable levels of risk. The Board and Investment Office staff are using all available tools to build an asset allocation to achieve that objective, including utilizing active investment managers as well as the prudent use of leverage to allow the System to maintain sufficient diversification. We believe we are in a good position to accomplish our objectives in an uncertain environment. As always, time will tell.

James H. Grossman Jr., CPA, CFA
Chief Investment Officer

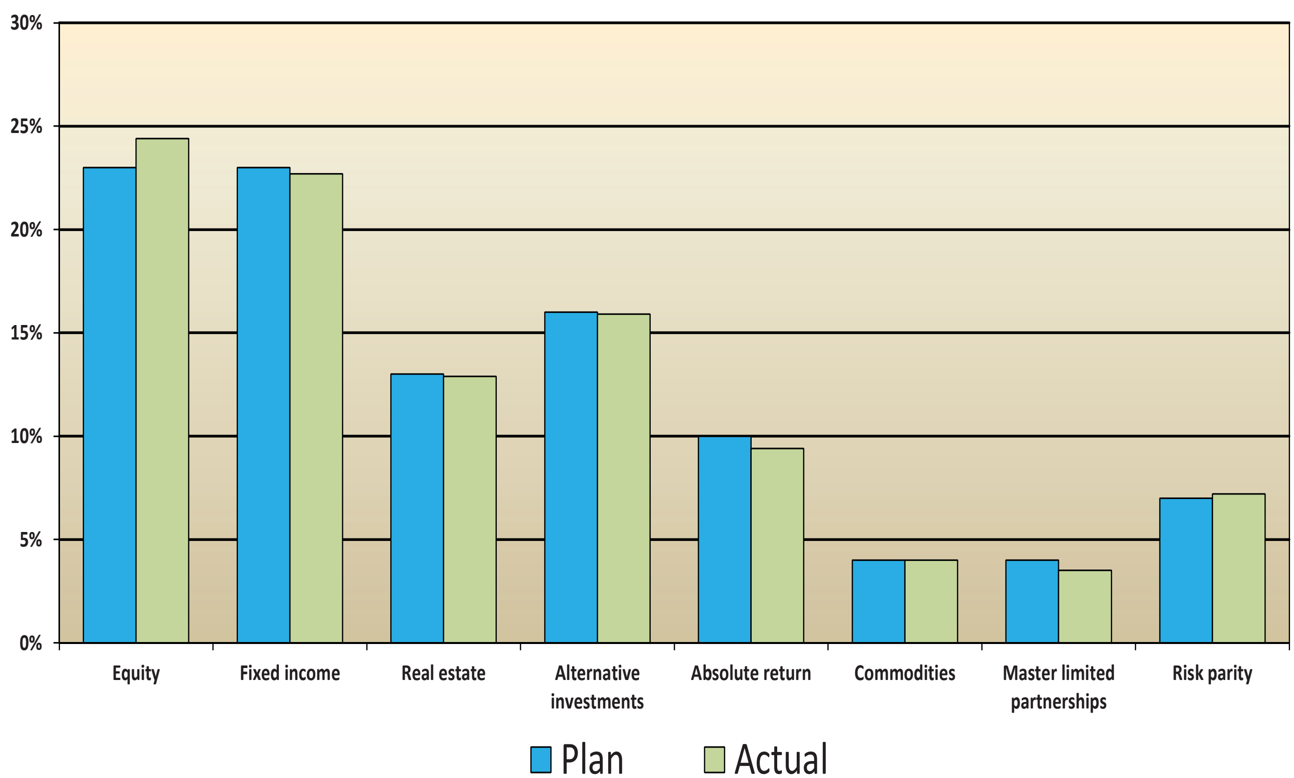
Portfolio Summary Statistics
Asset Allocation
As of June 30, 2015
(Dollar Amounts in Thousands)

Pension investments	Fair Value	% Fair Value
Common and preferred stock (Equity):		
Large and mid cap stocks	$ 5,425,666	10.6
Small cap stocks	813,239	1.6
Emerging markets stocks	1,358,075	2.6
Total Non-U.S. equity	**7,596,980**	**14.8**
Large cap stocks	3,502,331	6.9
Mid and small cap stocks	1,363,437	2.6
Microcap stocks	32,513	0.1
Total U.S. equity	**4,898,281**	**9.6**
Total Common and preferred stock - Asset Allocation Basis	**12,495,261**	**24.4**
Fixed income:		
Investment grade fixed income	3,711,849	7.3
High yield fixed income	3,111,805	6.1
Total U.S. Fixed income	**6,823,654**	**13.4**
Non-U.S. developed markets fixed income	2,478,974	4.9
Emerging markets fixed income	972,515	1.9
Total Non-U.S. Fixed income	**3,451,489**	**6.8**
Cash and cash equivalents	**1,276,862**	**2.5**
Total Fixed income - Asset Allocation Basis	**11,552,005**	**22.7**
Real estate	**6,568,798**	**12.9**
Alternative investments:		
Private equity	6,055,821	11.8
Private debt	1,129,519	2.2
Venture capital	955,811	1.9
Total Alternative investments - Asset Allocation Basis	**8,141,151**	**15.9**
Absolute return	**4,817,016**	**9.4**
Commodities	**2,025,583**	**4.0**
Master limited partnerships	**1,785,117**	**3.5**
Risk parity	**3,686,887**	**7.2**
Total Pension investments - Asset Allocation Basis	**51,071,818**	**100.0**
Net Asset Allocation Adjustment*	(765,074)	
Pension investments per Statement of Fiduciary Net Position	**50,306,744**	
Postemployment Healthcare investments	**$ 272,287**	**100.0**

* Includes reclassifications of certain investments between asset classes and investment receivables/payables to adjust the Statement of Fiduciary Net Position classification to the basis used to measure Asset Allocation. See the table and graph which follow.

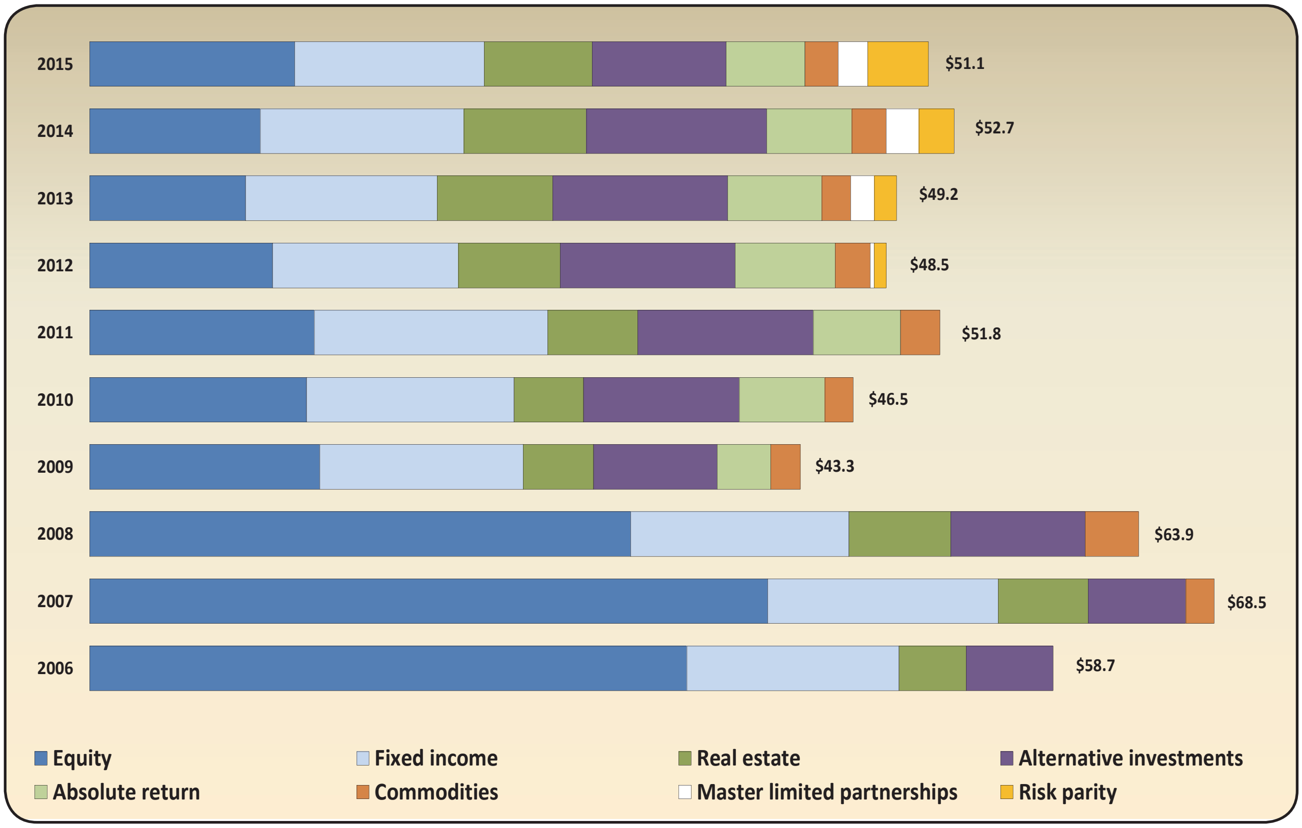
Comparison of Actual Portfolio Distribution to Asset Allocation Plan As of June 30, 2015

Asset Category	Plan	Actual
Common and preferred stock (Equity)	23.0%	24.4%
Fixed income	23.0	22.7
Real estate	13.0	12.9
Alternative investments	16.0	15.9
Absolute return	10.0	9.4
Commodities	4.0	4.0
Master limited partnerships	4.0	3.5
Risk parity	7.0	7.2
Total	**100.0%**	**100.0%**



Portfolio Distribution 10 Year Trend

(Fair Value - Dollar Amounts in Billions)



The following lists of portfolio detail statistics present the ten largest holdings by descending order of fair value for the largest public market asset classes. Information on the complete holdings of the System can be downloaded from the PSERS website at www.psers.state.pa.us.

Common and Preferred Stock - Non-U.S. Equity

10 Largest Holdings in Descending Order by Fair Value

As of June 30, 2015

(Dollar Amounts and Shares in Thousands)

Description	No. of Shares	Fair Value
BlackRock Emerging Markets Alpha Advantage Fund Ltd.- Class D	287	$ 326,369
The 32 Capital Fund Ltd.	98	193,683
BlackRock Emerging Markets Alpha Advantage Fund Ltd.- Class P	32	107,779
Nestle SA	1,387	79,172
Toyota	1,245	63,584
Novartis AG	612	60,306
Roche Holding AG	197	55,112
Royal Dutch Shell PLC	1,675	49,486
HSBC Holdings PLC	4,690	42,845
Novo Nordisk A/S	766	41,708
Total of 10 Largest Holdings		**$ 1,020,044**

Common and Preferred Stock - U.S. Equity
10 Largest Holdings in Descending Order by Fair Value
As of June 30, 2015
(Dollar Amounts and Shares in Thousands)

Description	No. of Shares	Fair Value
AllianceBernstein Factor Risk Premia Fund, L.P.	188,914	$ 188,914
Security Capital Preferred Growth	13,039	182,503
Apple Computer, Inc.	647	81,141
Microsoft Corporation	908	40,106
Exxon Mobil Corporation	585	39,063
Google, Inc.	64	34,133
Johnson & Johnson	385	33,991
General Electric Company	1,131	30,063
Wells Fargo & Company	526	29,592
JPMorgan Chase & Co.	417	28,238
Total of 10 Largest Holdings		**$ 687,744**

Fixed Income
10 Largest Holdings in Descending Order by Fair Value
As of June 30, 2015
(Dollar Amounts and Shares in Thousands)

Description	No. of Shares	Fair Value
PIMCO Multi-Sector Strategy Fund Ltd.	817	$ 904,688
BlackRock US Extended Core Global Alpha Bond Fund Ltd.	448	820,757
Bridgewater International Inflation-Linked Bond Fund	250	670,790
Bridgewater U.S. Inflation-Linked Bond Fund	252	500,021
Bridgewater Pure Alpha Fund II Ltd.	109	461,358
Sankaty Advisors LLC-Bank Loans	N/A	424,717
Black River Inflation Opportunity Fund Class B	351	291,400
Sankaty Credit Opportunities V-A, L.P.	N/A	284,786
ICG Europe Fund V, L.P.	N/A	215,360
Brigade Structured Credit Offshore Fund Ltd.	200	205,236
Total of 10 Largest Holdings		**$ 4,779,113**

Absolute Return
10 Largest Holdings in Descending Order by Fair Value
As of June 30, 2015
(Dollar Amounts and Shares in Thousands)

Description	No. of Shares	Fair Value
Bridgewater Pure Alpha Fund II, Ltd.	240	$ 905,010
Capula Global Relative Value Fund Ltd.	3,000	371,319
Brevan Howard Fund Ltd. - Class E US	2,553	348,234
Capula Tail Risk Fund Ltd.	3,977	338,670
Black River Fixed Income Relative Value Opportunity Fund Ltd.	250	305,299
PIMCO Absolute Return Strategy V Offshore Fund Ltd.	101	285,934
Brigade Leveraged Capital Structures Offshore Ltd.	170	271,279
PIMCO Global Credit Opportunity Offshore Fund Ltd.	123	263,036
BlackRock Capital Structure Investments Offshore Fund Ltd.	198	251,883
Aeolus Property Catastrophe Fund	219	244,768
Total of 10 Largest Holdings		**$ 3,585,432**

Postemployment Healthcare Investments
10 Largest Holdings in Descending Order by Fair Value
As of June 30, 2015
(Dollar Amounts in Thousands)

Description	Maturity Date	Interest Rate (%)	Par Value	Fair Value
PSERS Short-Term Investment Fund	Various	Various	$ 159,915	$ 159,915
Wilmington US Government MM	N/A	Various	67,342	67,342
Chase Issuance Trust Class 2012-A5 Class A5	08/15/17	0.590%	2,500	2,500
American Express Credit Account Master Trust 2012-2 Class A	03/15/18	0.680%	1,825	1,825
Mercedes-Benz Auto Lease Trust 2013-B Class A3	07/15/16	0.620%	1,635	1,635
GNMA Guaranteed REMIC 2010-87 Class LH	08/20/36	2.500%	1,243	1,255
GNMA Guaranteed REMIC 2006-31 Class E	05/16/39	4.643%	1,051	1,067
Mercedes-Benz Auto Lease Trust 2014-A Class A2B	09/15/15	0.366%	847	847
Master Credit Card Trust 2012-2A Class A	04/21/17	0.780%	790	790
MMAF Equipment Finance, LLC 2012-A	08/10/16	0.940%	698	698
Total of 10 Largest Holdings				**$ 237,874**

Comparison of Investment Activity Income
Fiscal Years Ended June 30, 2015 and 2014
(Dollar Amounts in Thousands)

Investment Activity	2015	2014
Net appreciation in fair value of investments	**$ 511,869**	$ 6,023,861
Short-term	**9,502**	8,702
Fixed income	**167,788**	220,447
Common and preferred stock	**279,940**	284,808
Collective trust funds	**2,117**	7,069
Real estate	**345,250**	374,076
Alternative investments	**458,658**	642,727
Total investment activity income	**$ 1,775,124**	$ 7,561,690

Brokers' fees on equity investment transactions for the fiscal year ended June 30, 2015 were $6.5 million. The System has commission recapture contracts with several brokers. These contracts generally stipulate that the brokers rebate a percentage of commissions earned on investment transactions directly to the System. During the fiscal year ended June 30, 2015, the System earned $61,000 from the commissions recapture program. A list of the brokers receiving fees in excess of $100,000 during the fiscal year follows:

Summary Schedule of Brokers' Fees
(Cumulative Fiscal Year Amounts Exceeding $100,000)
Fiscal Year Ended June 30, 2015

Broker Name	Fees Paid	Broker Name	Fees Paid
Citigroup Global Markets Incorporated	$ 716,798	Merrill Lynch	$ 227,752
Instinet Corporation	563,918	Credit Suisse First Boston	213,583
BNY Mellon	314,096	Goldman Sachs & Company	211,054
Fimat USA	281,049	Daiwa Securities	210,615
Morgan Stanley & Company	254,374	Macquarie Equities Limited	175,295
Jones Trading	250,127	Deutsche Bank	113,260
UBS Securities	236,571	Skandinaviska Enskilda Banken AG	106,465
JP Morgan Chase & Company	229,425		

Professional Consultants
External Investment Advisors
As of June 30, 2015

Absolute Return Managers
- AllianceBernstein, LP
- Apollo Aviation Services II & III, LP
- Aeolus Capital Management, Ltd.
- Black River Asset Management, LLC
- BlackRock Financial Management, Inc.
- Brevan Howard Asset Management, LLP
- Bridgewater Associates, Inc.
- Brigade Capital Management
- Capula Investment Management, LLP
- Caspian Capital, LP
- Ellis Lake Capital, LLC
- Nephila Capital, Ltd.
- Oceanwood Capital Management, Ltd.
- Pacific Investment Management Company
- Perry Capital, LLC

Publicly-Traded Real Estate Securities Manager
- Security Capital Research & Management, Inc.

Non-U.S. Equity Managers
- Acadian Asset Management, Inc.
- Baillie Gifford Overseas, Ltd.
- Batterymarch Financial Management, Inc.
- BlackRock Financial Management, Inc.
- Marathon Asset Management, LLP
- Oberweis Asset Management, Inc.
- Pyramis Global Advisors, Inc.
- Wasatch Advisors, Inc.

Commodity Managers
- Gresham Investment Management, LLC
- Pacific Investment Management Company
- Wellington Management Company, LLP

U.S. Core Plus Fixed Income Managers
- BlackRock Financial Management, Inc.
- Piedmont Investment Advisors, LLC
- Pugh Capital Management, Inc.
- SEI Investment Management Corporation

High Yield Fixed Income Managers
- Apollo Management International, LLP
- Avenue Capital Group
- BlackRock Financial Management, Inc.
- Brigade Capital Management
- Cerberus Institutional Partners, LP
- Haymarket Financial, LLP
- Intermediate Capital Group, PLC
- LBC Credit Partners
- Mariner Investment Group, LLC
- Oaktree Capital Management, LP
- Radcliffe Capital Management, LP
- Sankaty Advisors, LLC
- Summit Partners
- The Carlyle Group
- TPG Partners, LP
- Varde Partners

Non-U.S. Developed Markets Fixed Income Manager
- AllianceBernstein, LP

Emerging Markets Debt Managers
- Franklin Templeton Investments
- Stone Harbor Investment Partners, LP

Multi-Sector Fixed Income Manager
- Pacific Investment Management Company

Global Treasury Inflation - Protected Securities Managers
- Black River Asset Management, LLC
- Bridgewater Associates, Inc.

Passive Currency Hedging Overlay Program Manager
- Pareto Investment Management, Ltd.

Risk Parity Managers
- AQR Capital Management, LLC
- BlackRock Financial Management, Inc.
- Bridgewater Associates, Inc.
- D.E. Shaw Investment Management, LLC

Master Limited Partnership Advisors
- Atlantic Trust Private Wealth Management
- Harvest Fund Advisors, LLC
- Salient Capital Advisors, LLC

Professional Consultants (Continued)

Real Estate Advisors

- Charter Oak Advisors, Inc.
- GF Management, Inc.
- Grosvenor Fund Management US, Inc.
- L&B Realty Advisors, LLP

Real Estate Partnerships

- AG Core Plus Realty Fund III, LP
- Almanac Realty Securities V & VI, LP
- Apollo Real Estate Finance Corp.
- AREFIN Co-Invest Corp.
- Ares European Real Estate Fund III, LP
- Ares U.S. Real Estate Fund VII, LP
- AvalonBay Value Added Fund I & II, LP
- Avenue Real Estate Fund, LP
- Beacon Capital Strategic Partners V, LP
- Bell Institutional Fund IV & V, LP
- BlackRock Asia Property Fund III, LP
- BlackRock Europe Property Fund III, LP
- Blackstone Real Estate Debt Strategies II, LP
- Blackstone Real Estate Partners V, VI, & VII, LP
- Blackstone Real Estate Partners Europe III & IV, LP
- BPG Investment Partnership V & VI, LP
- BPG/PSERS Co-Investment Fund, LP
- Broadway Partners Real Estate Fund II & III, LP
- Brookfield Strategic Real Estate Partners, LP
- Cabot Industrial Value Fund III & IV, LP
- Carlyle Europe Real Estate Partners III-A, LP
- Carlyle Realty Partners III, IV, V, & VI, LP
- DLJ Real Estate Capital Partners II, III, & IV, LP
- DRA Growth and Income Fund VI & VII, LLC
- Exeter Industrial Value Fund II, LP
- Fillmore West Fund, LP
- Fortress Investment Fund I, IV, & V, LP
- Hines U.S. Office Value Added Fund, LP
- JP Morgan Strategic Property Fund
- LAI Real Estate Investors, LLC
- Latitude Management Real Estate Capital III, Inc.
- LCCG Real Estate Special Situations Mortgage Fund, LLC
- Legg Mason Real Estate Capital I & II, Inc.
- LEM Real Estate High Yield Debt and Preferred Equity Fund III, LP
- LEM Real Estate Mezzanine Fund II, LP
- Lubert-Adler Real Estate Fund III, IV, V, & VI, LP
- Madison Marquette Retail Enhancement Fund, LP
- North Haven Domestic Real Estate Fund IV, LP
- North Haven Int'l. Real Estate Fund IV, V, & VI, LP
- North Haven Real Estate Fund V US, LP
- North Haven Real Estate Fund VII Global, LP
- O'Connor North American Property Partners I & II, LP
- Paladin Realty Latin America Investors III, LP
- Paramount Group, Inc.
- Peabody Global Real Estate Partners
- PRISA
- RCG Longview Debt Fund IV & V, LP
- RCG Longview Equity Fund, LP
- Senior Housing Partnership Fund IV, LP
- Silverpeak Legacy Partners I, II, & III, LP
- Stockbridge Real Estate Fund I, II, & III, LP
- Strategic Partners II, III, & IV RE, LP
- Strategic Partners Value Enhancement Fund, LP
- UBS (US) Trumbull Property Fund, LP
- William E. Simon & Sons Realty Partners, LP

Farmland Advisor

- Prudential Agricultural Group

Private Equity/Venture Capital Partnerships

- ABS Capital Partners II, LP
- Actis Emerging Markets 3, LP
- Actis Global 4, LP
- Adams Capital Management, LP
- Aisling Capital Partners II & III, LP
- Allegheny New Mountain Partners, LP
- Apax Europe VII, LP
- Bain Capital Asia Fund II, LP
- Bain Capital Fund XI, LP
- Baring Asia Private Equity Fund III, IV, & V, LP
- Blue Point Capital Partners I, II, & III, LP
- Bridgepoint Capital II, LP
- Bridgepoint Europe I, II, III, & IV, LP
- Capital International Private Equity Fund V & VI, LP
- Catterton Growth Partners I & II, LP
- Catterton Partners V, VI, & VII, LP
- Co-Investment Fund 2000, LP
- Co-Investment Fund II, LP
- Coller International Partners VI, LP
- Credit Suisse Intl. Equity Partners, LP
- Crestview Partners I & II, LP
- Cross Atlantic Technology Fund I & II, LP
- CVC Capital Partners Asia Pacific III, LP
- CVC European Equity Partners V, LP
- DCPF VI Oil and Gas Co-Investment Fund, LP
- Denham Commodity Partners VI, LP
- DLJ Merchant Banking Partners III, LP
- Dubin Clark Fund II, LP
- Equistone Partners Europe Fund VE, LP
- Evergreen Pacific Partners I & II, LP
- First Reserve Fund XI & XII, LP
- Goldpoint Partners Co-Investment Fund V, LP
- Greenwich Street Capital Partners II, LP
- HgCapital 7, LP
- HGGC Fund II
- Incline Equity Partners III, LP
- Irving Place Capital Partners II & III, LP
- Jefferson Partners Fund IV, LP
- KBL Healthcare Ventures, LP
- KRG Capital Fund II, LP
- Landmark Equity Partners IV, V, XIII, & XIV, LP
- Landmark Mezzanine Partners, LP

Professional Consultants (Continued)

- Lexington Capital Partners I, LP
- Lindsay, Goldberg & Bessemer, LP
- LLR Equity Partners I, II, III, & IV, LP
- Milestone Partners II, III, & IV, LP
- Morgan Stanley Dean Witter Capital Partners IV, LP
- North Haven Private Equity Asia Fund IV, LP
- NEPA Venture Fund II, LP
- New Mountain Partners I & III, LP
- New York Life Capital Partners I, II, III, & IV, LP
- NGP Natural Resources X, LP
- Novitas Capital I & II, LP
- Odyssey Investment Partners, LLC
- Orchid Asia V, LP
- PAI Europe IV & V, LP
- Palladium Equity Partners II-A & IV, LP
- Partners Group Secondary 2008 & 2011, LP
- Permira IV, LP
- Perseus-Soros Bio-Pharmaceutical Fund, LP
- Platinum Equity Capital Partners I, II, & III, LP
- PNC Equity Partners I & II, LP
- Psilos Group Partners III, LP
- Quadrangle Capital Partners I, LP
- Quaker BioVentures I & II, LP
- SCP Private Equity Partners I & II, LP
- StarVest Partners I & II, LP
- StepStone International Investors III, LP
- Sterling Capital Partners, LP
- Sterling Venture Partners, LP
- Strategic Feeder, LP
- Strategic Partners II, III-B, & III-VC, LP
- Strategic Partners Fund IV, IV-VC, & V, LP
- Summit Partners Growth Equity Fund VIII, LP
- Summit Partners Venture Capital Fund III, LP
- Tenaya Capital IV-P , V-P, & VI, LP
- The Energy & Minerals Group
- The Fifth Cinven Fund No. 1, LP
- The Fourth Cinven Fund
- Trilantic Capital Partners IV, LP
- Trilantic Capital Partners V (North America), LP
- U.S. Equity Partners II, LP

Private Debt Partnerships

- Apollo Investment Fund VIII, LP
- Avenue Asia Special Situations Fund II, III, & IV, LP
- Avenue Europe Special Situations Fund, LP
- Avenue Special Situations Fund IV, V, & VI, LP
- Cerberus Institutional Partners, II, III, IV & V, LP
- Gleacher Mezzanine Fund I & II
- Gold Hill Venture Lending, LP
- GSC Partners CDO Investors IV, LP
- GSC Recovery II & III, LP
- New York Life Investment Management Mezzanine Partners I & II, LP
- OCM Opportunities Fund VII & VII-B, LP
- Venor Special Situations Fund II, LP
- Versa Capital Fund I & II, LP
- Windjammer Senior Equity Fund III & IV, LP

Alternative Investment Consultant

- Portfolio Advisors, LLC

Custodian Bank

- The Bank of New York Mellon Corporation

Securities Lending Agent

- Deutsche Bank AG

Absolute Return Consultant

- Aksia, LLC

Investment Accounting Application Service Provider

- Financial Control Systems, Inc.

Investment Evaluator and General Investment Consultant

- Aon Hewitt Investment Consulting, Inc.

Proxy Voting Agent

- Glass, Lewis & Co., LLC

Real Estate Investment Consultant

- Courtland Partners, Ltd.