Investment Section

COMMONWEALTH OF PENNSYLVANIA
PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM

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Chief Investment Officer

October 31, 2014

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 year ended June 30, 2014.

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 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. 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 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 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, 2014, Hewitt EnnisKnupp (HEK) 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 (Wilshire Associates served as the general investment consultant into November 2013). In addition, the Board utilized 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, 39 external public market investment management firms were managing $17.0 billion in assets of the System, $15.2 billion in assets were managed by the System's internal investment managers, and the remaining $20.7 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 during the first half of each calendar year. 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 establishing the asset allocation for the System, 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, 2014 included an equity target allocation of 39.0% consisting of publicly traded stocks (18.0%) and private markets (21.0%). Specific publicly traded stock targets have been established for U.S. equity (9.0%) and non-U.S. equity (9.0%). Within the U.S. equity target, the portfolios are diversified between large, small, and micro 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 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%) and emerging markets fixed income (2.0%). Inflation protected exposure consisted of leveraged Treasury Inflation-Protected Securities (TIPS) (6.0%) 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 a mix of publicly traded high yield securities and 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 allocation target of 3.0% consisted of short-duration, high quality government and investment grade securities. The Board, Staff, and HEK 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 23.0% consisted of real estate (14.0%), master limited partnerships (3.0%), and commodities (6.0%). The real estate target allocation of 14.0% 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 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 markets to diversify the System's total portfolio risk.

The risk parity allocation of 5.0% 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. The risk parity allocation is managed to a targeted risk level of 12.0%.

Liquidity and Asset Allocation

The System's risk profile is, in part, driven by its liquidity needs in any given year. During each of the past four fiscal years, the System has paid out over $3.0 billion more in benefits than it received in member and employer contributions. This funding deficiency has amounted to more than 6.0% of beginning net assets each year 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 the next few years, 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 dependence on the equity markets for returns 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 year remained relatively strong with the exception of the 1st quarter of 2014. The U.S. real Gross Domestic Product (GDP) increased by 4.1%, 2.6%, (2.9%), and 4.2% in the third quarter 2013, fourth quarter 2013, first quarter 2014, and second quarter 2014, respectively. The (2.9%) U.S. real GDP print in the first quarter can be attributed to a very cold and snowy winter which impeded economic activity. The official unemployment rate (otherwise known as the U3 unemployment rate) fell during the fiscal year from 7.6% as of June 2013 to 6.1% as of June 2014, approaching what the Federal Reserve (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 12.1% as of fiscal year end, down from 14.3% 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 63.5% in June 2013 to 62.8% in June 2014 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 2001 levels today, the official unemployment rate would probably be significantly higher.

The Fed has had extremely accommodative monetary policies during the past few years 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 objectives were 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 $3.48 trillion in June 2013 to $4.37 trillion in June 2014. Given the improvement in economic growth and the unemployment rate, the Fed started tapering these purchases in December 2013 by $10 billion per meeting and has signaled to the market that the asset purchase program will end in October 2014. While interest rates remain very accommodative, this tapering represents a mild tightening to monetary conditions in the United States.

Inflation in the United States, even with improving economic conditions and very accommodative interest rates, remains well anchored and around the Fed's target inflation rate of 2.0%. The U.S. Core Consumer Price Index (CPI) was 1.6% year over year as of June 2013 and increased mildly over the year to 1.9% as of June 2014. Housing during the past fiscal year has continued to be strong, up 8.1% as measured by the S&P Case-Shiller 20-City Home Price Index after being up over 12.0% 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 0.1%, 0.3%, 0.2% and 0.0% in the third quarter 2013, fourth quarter 2013, first quarter 2014, and second quarter 2014, respectively. The Eurozone unemployment rate, while falling modestly during the fiscal year from 12.0% as of June 2013 to 11.5% as of June 2014, remains very elevated. Inflation for the Eurozone has fallen from 1.6% on a year over year basis in June 2013 to 0.5% in June 2014 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.

During the past year the Japanese economy remained weak but is showing signs of improving. The Japanese real GDP increased by 0.4%, 0.0%, 1.5% and (1.7%) in the third quarter 2013, fourth quarter 2013, first quarter 2014, and second quarter 2014, respectively. The increase in economic activity in the first quarter 2014 was due to an announced increase in the consumption tax in Japan from 5.0% to 8.0% effective April 1, 2014. Consumption was brought forward which caused the spike in real GDP in the first quarter of 2014 and the drop of real GDP in the second quarter of 2014. The Japanese unemployment rate remains very well contained, falling from a modest 3.9% in June 2013 to 3.7% in June 2014. Inflation for Japan has increased significantly during the past fiscal year from a 0.2% year over year rate in June 2013 to 3.6% in 2014. Japanese policy makers have been providing increasing amounts of monetary and fiscal stimulus to the economy in an effort to end many years of deflation and stagnant growth. Economic conditions have improved in Japan over the past year and 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 7.8%, 7.7%, 7.4% and 7.5% in the third quarter 2013, fourth quarter 2013, first quarter 2014, and second quarter 2014, respectively. Inflation in China has fallen from 2.7% on a year over year basis in June 2013 to 2.3% in June 2014 and appears fairly stable. Economic conditions in China appear to be fairly well managed by the Chinese fiscal and monetary authorities.

Investment Results

This past fiscal year was an excellent year to be invested in risky assets of all types. The year was marked by improving global growth and relatively stable inflation expectations, led by the U.S. economy, accompanied by generally very accommodative monetary policies worldwide. The relatively calm economic and monetary conditions of the past year produced a low-volatility environment that encouraged a continued movement of money into riskier assets, compressing risk premiums. The low-volatility environment as measured by the Chicago Board Options Exchange Volatility Index (VIX index), an index which reflects a market estimate of future volatility, fell from 16.86 in June 2013 to 11.57 in June 2014. As a point of reference, during the financial crisis, the VIX Index peaked on a monthly basis at 59.89 in October 2008. It was a good year to use leverage (borrow cash) to buy riskier assets since the return on cash was lower than the return on other asset classes. Equities, the riskiest asset class, had the best performance during the past year, even on a risk-adjusted basis. However, other asset classes had positive returns as well. 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, 2014, the fair value of the investment portfolio was $52.9 billion, an increase of $3.4 billion from last year's value. This increase was primarily due to the combination of net investment income ($7.1 billion) and member and employer contributions ($3.1 billion) exceeding the deductions for benefits and administrative expenses ($6.5 billion) and net changes in other investment assets and liabilities ($0.3 billion). The investment portfolio, as invested, was composed of 19.6% common and preferred stocks (equities), 23.6% fixed income investments, 20.9% alternative investments, 14.2% real estate, 9.8% absolute return portfolios, 4.0% commodities, 3.8% master limited partnerships, and 4.1% risk parity at June 30, 2014. 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 24.55% during the fiscal year. Returns for the first and second quarters of the fiscal year were exceptionally strong, posting a 6.11% and 9.94% return, respectively. Returns for the third and fourth quarters of the fiscal year were good, posting 1.86% and 4.82%, respectively. Foreign markets, in U.S. dollar terms, were weaker than the U.S. markets but strong nonetheless 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 18.39% for the fiscal year, driven primarily by multiple expansion, accommodative monetary policies, and more stable economic conditions. The Thomson ONE 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 Thomson Reuters, returned 8.34% for the fiscal year (reported on a one-quarter lag) as these investments were written up to prices comparable to gains in the public equity markets.

Commodity markets performed well in this environment as global economic conditions improved and monetary conditions remained loose. 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 up 8.21%.

Fixed income markets were generally positive in this environment as interest rates fell even with the headwind of slight monetary tightening in the U.S. from a tapering of quantitative easing by the Fed. For the fiscal year, the Barclays U.S. Aggregate Index, a U.S. fixed income index, was up 4.37% as the yield curve fell from the June 2013 level. The Barclays Global Aggregate GDP Weighted Developed Market ex. U.S. Index (Unhedged), a non-U.S. fixed income index, was up 8.22%. The Barclays High Yield Index returned 11.73% during the past fiscal year due to a tightening of credit spreads as investors continued to bid up credit in search of yield. The Barclays U.S. TIPS Index, an index of U.S. treasury inflation protection securities, driven by falling real yields, had a positive return of 4.44% for the fiscal year.

To benchmark real estate performance, the System uses the National Council of Real Estate Investment Fiduciaries/ Townsend Fund (NTF) Index, a quarterly time series of real estate partnership portfolios used to simulate the universe of core and value-added estate partnerships. The indexes 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 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, 2014			
	1 Year	**3 Years**	**5 Years**	**10 Years**
PSERS Total Portfolio	**14.91**	**8.66**	**12.09**	**7.28**
Total Fund Policy Index	12.05	6.14	9.20	5.81
Median Public Defined Benefit Plan (DBP) Fund Universe (HEK Database)	16.56	9.57	12.44	6.86
PSERS U.S. Equity Portfolios	**25.27**	**16.52**	**19.95**	**7.99**
U.S. Equity Policy Index (1)	24.55	15.77	18.73	8.07
PSERS Non-U.S. Equity Portfolios	**18.14**	**6.01**	**12.32**	**9.20**
Non-U.S. Equity Policy Index (2)	21.10	5.54	11.29	8.20
PSERS Fixed Income Portfolios	**9.86**	**7.21**	**10.71**	**7.46**
Fixed Income Policy Index (3)	6.52	4.34	7.83	6.50
PSERS Commodity Portfolios	**13.12**	**-4.59**	**3.94**	**N/A**
Commodity Policy Index (4)	8.21	-5.16	1.99	N/A
PSERS Absolute Return Portfolios	**6.31**	**4.33**	**8.24**	**N/A**
Absolute Return Policy Index (5)	7.50	7.50	7.70	N/A
PSERS Risk Parity Portfolios	**23.95**	**12.95**	**N/A**	**N/A**
Risk Parity Policy Index (6)	16.45	4.23	N/A	N/A
PSERS Master Limited Partnership (MLP) Portfolios	**35.97**	**28.46**	**33.01**	**N/A**
Standard & Poor's MLP Index	24.87	20.32	26.99	N/A
PSERS Real Estate (7)	**16.44**	**10.91**	**7.90**	**6.06**
Blended Real Estate Index (8)	11.13	10.21	8.75	8.63
PSERS Alternative Investments (7)	**14.27**	**11.33**	**14.90**	**13.70**
Thomson ONE Median Return, Vintage Year Weighted	8.34	5.14	7.60	5.78

1. MSCI USA Investable Market Index effective April 1, 2009; previously was the Dow Jones Wilshire 5000 Index.
2. MSCI All Country World (ACW) ex. USA Investable Market Index effective July 1, 2008; previously was the MSCI ACW ex. U.S. Index. The benchmark was 30% hedged to the U.S. dollar from July 1, 2006 to March 31, 2009; otherwise, the benchmark is unhedged.
3. Returns presented are a blend of the Barclays Capital U.S. Aggregate Index (17.2%), Barclays Capital Global Aggregate GDP-weighted Developed Market ex-U.S. (Unhedged) Index (3.4%), Barclays Capital EM Local Currency - Government - MV Weighted (Unhedged) - 10% Country Cap Index (6.9%), Barclays Capital U.S. Treasury Long Index (10.4%), Barclays Capital U.S. TIPS Index (Series –L) (41.4%), and Barclays Capital U.S. High Yield Index (20.7%) effective January 1, 2012. The weights to these indexes have varied in previous quarters. Prior to January 1, 2012, the Barclays Capital U.S. Universal Index was used in place of the Barclays Capital U.S. Aggregate Index.
4. Returns presented are a blend of the DJ/UBS Commodity Gold Index (33.3%) and the DJ/UBS Commodity Index (66.7%).
5. Absolute Return started April 1, 2009. The assumed actuarial rate of return for the fund was 8.0% from July 1, 2009 through June 30, 2011. The rate changed to 7.5% beginning July 1, 2011.
6. Returns presented are a blend of the MSCI ACWI ($Net) (35%); Barclays Capital U.S. Treasury Index (75%); Barclays Capital World Inflation Linked Bond Index Hedged (120%); Dow Jones-UBS Commodity Index (Total Return) (15%); Dow Jones-UBS Gold Index (5%); and 3-Month LIBOR (-150%).
7. Returns reported on a one-quarter lag, except for publicly traded real estate security investments.
8. NTFI Index effective July 1, 2010. The NTFI Index is reported on a one-quarter lag. Between April 1, 2010 and June 30, 2010, the NCREIF Index was used. Previously, returns presented were a blend of the FTSE EPRA/NAREIT Global Real Estate Index and the NCREIF Index.

The NTF Index returned 11.13% 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, 2014. 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 a below target fiscal year generating a total return of 6.31%, 119 basis points under its target return of 7.50%. The weak performance was driven primarily by the commodity trading advisors (CTAs) who were whipsawed by interest rate markets during the year. 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 had a return of 23.95%, exceeding the policy index for this program by 750 basis points. The risk parity managers take a balanced risk approach to portfolio construction, leveraging low risk assets such as nominal and inflation-linked bonds to an equivalent risk level as equities and commodities and then balancing the risks in constructing their portfolios. Risk parity had strong positive performance given relatively calm economic and monetary conditions for the past year coupled with positive returns from all major asset classes.

The master limited partnership market continued to perform extremely well during the fiscal year, with a return of 35.97%, as the companies in this market exhibited strong growth in distributions and high yields which compressed during the year. For the fiscal year, the Standard & Poor's MLP Index was up 24.87%.

For the one-year period ended June 30, 2014, the System generated a total net of fee return of 14.91%. This return exceeded the total fund Policy Index return of 12.05% by 286 basis points. Annualized total net of fee returns for the three-, five-, and ten-year periods ended June 30, 2014 were 8.66%, 12.09%, and 7.28%, respectively. The three-, five- and ten-year returns ended June 30, 2014 exceeded the total fund Policy Index returns by 252, 289, and 147 basis points, respectively.

HEK 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 The Bank of New York Mellon Corporation. 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 $18.6 million in net gains during the year.

Accomplishments

The System continued its efforts to diversify its market exposures as the Board approved increased allocations to risk parity and master limited partnerships starting in 2014. The System continues work on a number of risk initiatives, including studies covering liquidity risk, leverage risk, downside risk, and counterparty risk. As the markets continue to get more expensive, managing risk will be become increasingly important.

I am proud that collectively the Board, the Investment Office staff, external investment managers, and the System's consultants (collectively, the "Investment Team") contributed to generating returns in excess of the passive Policy Index of over $1.2 billion, net of all fees and expenses. If the Board succumbed to the pressure of passively managing the entire 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 $6.6 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 (31 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' program of active management has been successful due to the wisdom of the System's Board in giving 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 where staff believe the System has an edge in manager selection. In those areas that staff believe are efficient or where staff does not believe PSERS has an 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 those assets internally at competitive costs.

Summary

The System had an excellent fiscal year ended June 30, 2014 with a return of 14.91%, which was in excess of the Policy Index return of 12.05%. This excess return amounted to an incremental income for the System of approximately $1.2 billion. Over the past five- and ten-year periods ended June 30, 2014, the System returned 12.09% and 7.28%, both in excess of the System's Policy Index. The environment during the past fiscal year was one in which the global economy was no longer in a recession but was not overheating. Inflationary and deflationary forces were roughly in balance, asset pricing is near equilibrium, and there is little pressure to tighten or ease monetary policy. Given this environment, market volatility collapsed, the discounting of future growth and inflation has changed very little, and monetary policies unfolded roughly as expected. This set of conditions combined with abundant liquidity has encouraged the movement of cash and less risky assets into riskier assets, increasing their prices and compressing their risk premiums. This compression of risk premiums, while increasing returns today, will probably lead to a period of more modest returns in the future. In addition, we expect the future to be less benign and more difficult. As discussed in a recent Bridgewater Daily Observation report (Bridgewater Associates, LP is one of the System's TIPS, Absolute Return, and Risk Parity managers), economic conditions around the world are increasingly divergent. As an example, the U.S. and Europe are diverging after being highly correlated since the financial crisis in 2008. The U.S. has had more aggressive monetary policies leading to a strengthening economy and a Fed now on the verge of raising rates. Europe continues to stagnate due to less aggressive monetary policies which may require the European Central Bank to embark on quantitative easing and continued low interest rates. Japan is experimenting with more aggressive monetary policies and reforms in an attempt to end decades of stagnation. In a world of increasing uncertainties, balancing risks in an investment portfolio becomes more important as the range of outcomes widens. We believe the System continues to be well positioned for this uncertain environment due to its risk balanced allocation and asset class diversification.

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

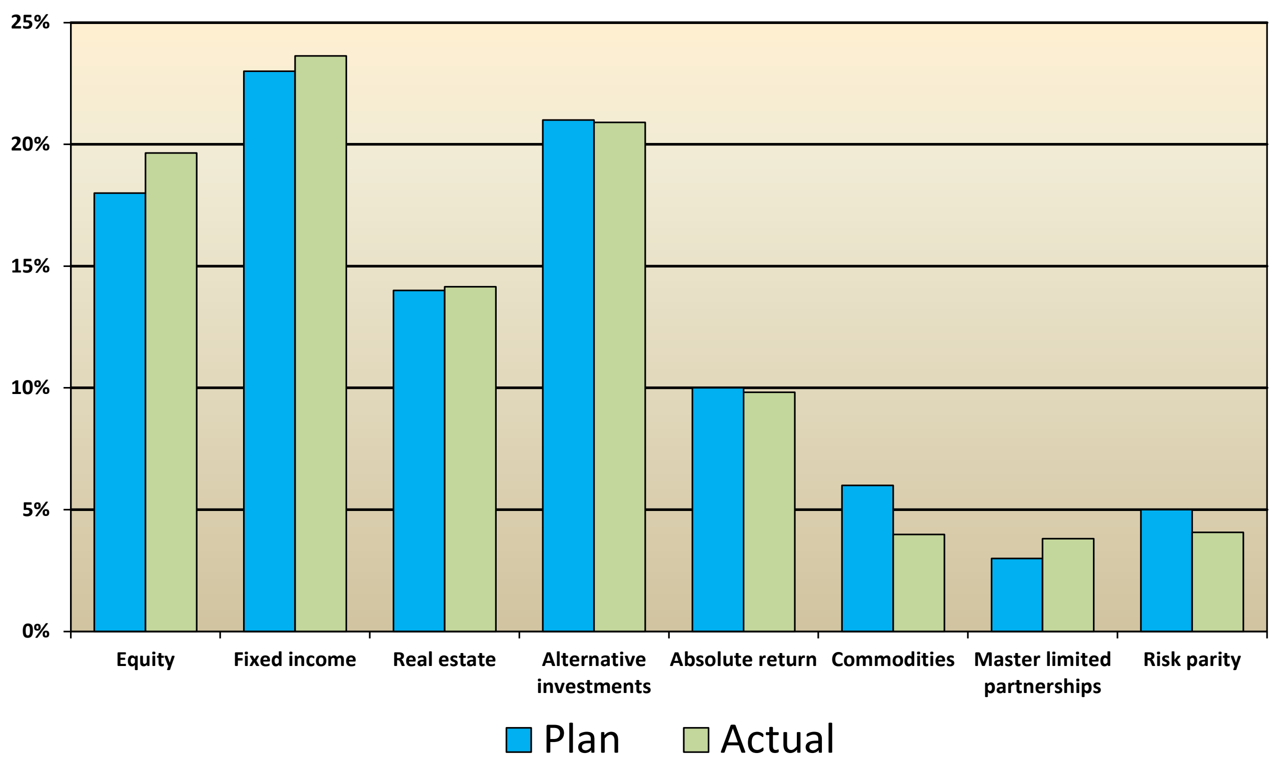
Portfolio Summary Statistics
Asset Allocation
As of June 30, 2014
(Dollar Amounts in Thousands)

Pension investments	Fair Value	% Fair Value
Common and preferred stock (Equity):		
Large and mid cap stocks	$ 3,333,804	6.3
Small cap stocks	743,887	1.4
Emerging markets stocks	1,264,765	2.4
Total Non-U.S. equity	**5,342,456**	**10.1**
Large cap stocks	3,658,091	6.9
Mid and small cap stocks	1,275,958	2.4
Microcap stocks	131,021	0.2
Total U.S. equity	**5,065,070**	**9.5**
Total Common and preferred stock - Asset Allocation Basis	**10,407,526**	**19.6**
Fixed income:		
Investment grade fixed income	4,231,437	8.0
High yield fixed income	2,745,764	5.2
Total U.S. Fixed income	**6,977,201**	**13.2**
Non-U.S. developed markets fixed income	2,296,844	4.4
Emerging markets fixed income	883,226	1.7
Total Non-U.S. Fixed income	**3,180,070**	**6.1**
Cash and cash equivalents	**2,255,397**	**4.3**
Total Fixed income - Asset Allocation Basis	**12,412,668**	**23.6**
Real estate	**7,454,792**	**14.2**
Alternative investments:		
Private equity	8,743,446	16.7
Private debt	1,274,460	2.4
Venture capital	967,932	1.8
Total Alternative investments - Asset Allocation Basis	**10,985,838**	**20.9**
Absolute return	**5,175,452**	**9.8**
Commodities	**2,099,961**	**4.0**
Master limited partnerships	**2,004,393**	**3.8**
Risk parity	**2,142,784**	**4.1**
Total Pension investments - Asset Allocation Basis	**52,683,414**	**100.0**
Net Asset Allocation Adjustment*	(6,809)	
Pension investments per Statement of Plan Net Position	**52,676,605**	
Postemployment Healthcare investments	**$ 251,502**	**100.0**

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

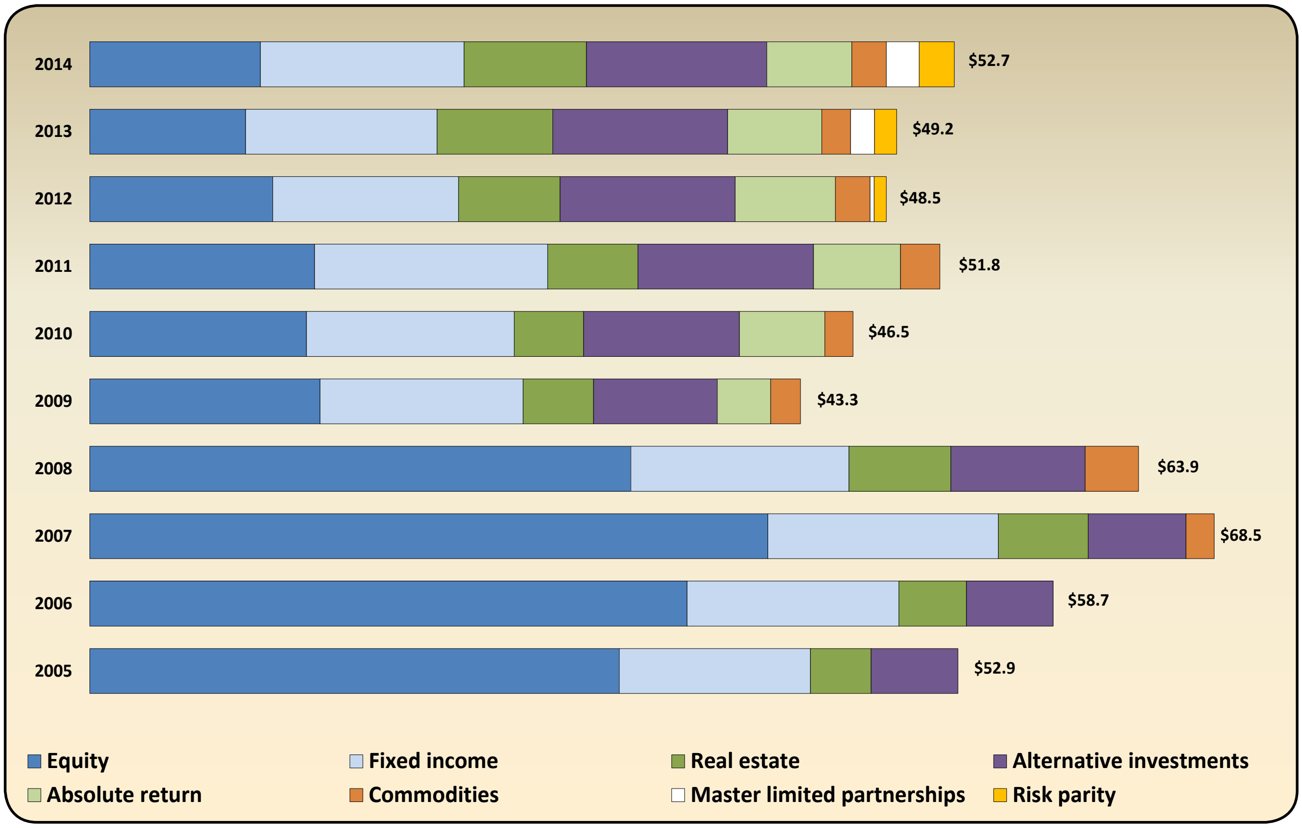
Comparison of Actual Portfolio Distribution to Asset Allocation Plan As of June 30, 2014

Asset Category	Plan	Actual
Common and preferred stock (Equity)	18.0%	19.6%
Fixed income	23.0	23.6
Real estate	14.0	14.2
Alternative investments	21.0	20.9
Absolute return	10.0	9.8
Commodities	6.0	4.0
Master limited partnerships	3.0	3.8
Risk parity	5.0	4.1
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, 2014

(Dollar Amounts and Shares in Thousands)

Description	No. of Shares	Fair Value
BlackRock Emerging Markets Alpha Advantage Fund Ltd.- Class D	199	$ 230,388
The 32 Capital Fund Ltd.	98	175,136
BlackRock Emerging Markets Alpha Advantage Fund Ltd.- Class P	32	109,901
Nestle SA	882	48,282
Roche Holding AG	102	30,388
BHP Billiton Ltd.	2,314	30,172
Novartis AG	319	28,874
Schlumberger Ltd.	239	28,131
Taiwan Semiconductor Manufacturing Company, Ltd.	6,430	24,849
Samsung Electronics Company, Ltd.	19	24,370
Total of 10 Largest Holdings		**$ 730,491**

Common and Preferred Stock - U.S. Equity

10 Largest Holdings in Descending Order by Fair Value

As of June 30, 2014

(Dollar Amounts and Shares in Thousands)

Description	No. of Shares	Fair Value
Security Capital Preferred Growth	13,039	$ 197,093
AllianceBernstein Factor Risk Premia Fund, L.P.	195,243	194,850
Apple Computer, Inc.	1,104	102,627
Exxon Mobil Corporation	787	79,188
Microsoft Corporation	1,377	57,411
Johnson & Johnson	518	54,210
General Electric Company	1,837	48,266
Wells Fargo & Company	878	46,140
Chevron Corporation	349	45,517
JPMorgan Chase & Co.	693	39,941
Total of 10 Largest Holdings		**$ 865,243**

Fixed Income

10 Largest Holdings in Descending Order by Fair Value

As of June 30, 2014

(Dollar Amounts and Shares in Thousands)

Description	No. of Shares	Fair Value
PIMCO Multi-Sector Strategy Fund Ltd.	817	$ 913,939
BlackRock US Extended Core Global Alpha Bond Fund Ltd.	485	813,984
Bridgewater International Inflation-Linked Bond Fund	273	611,115
Bridgewater U.S. Inflation-Linked Bond Fund	220	463,924
Bridgewater Pure Alpha Fund II Ltd.	116	440,557
Sankaty Advisors LLC-Bank Loans	N/A	420,257
Black River Inflation Opportunity Fund Class B	350	315,300
Sankaty Credit Opportunities V-A, L.P.	N/A	167,733
Sankaty Middle Market Opportunities Fund L.P.	N/A	157,149
Cerberus Levered Loan Opportunities Fund II, L.P.	N/A	156,606
Total of 10 Largest Holdings		**$ 4,460,564**

Absolute Return

10 Largest Holdings in Descending Order by Fair Value

As of June 30, 2014

(Dollar Amounts and Shares in Thousands)

Description	No. of Shares	Fair Value
Bridgewater Pure Alpha Fund II, Ltd.	291	$ 1,009,268
Brigade Leveraged Capital Structures Offshore Ltd.	364	585,119
Brevan Howard Fund Ltd. - Class E US	3,095	398,765
Capula Tail Risk Fund Ltd.	3,977	338,512
Black River Fixed Income Relative Value Opportunity Fund Ltd.	250	297,706
Palmetto Fund Ltd. Class G	241	273,845
BlackRock Capital Structure Investments Offshore Fund Ltd.	198	265,663
PIMCO Global Credit Opportunity Offshore Fund Ltd.	127	250,937
PIMCO Absolute Return Strategy V Offshore Fund Ltd.	103	249,681
Caspian Select Credit International, Ltd. Series A	199	247,893
Total of 10 Largest Holdings		**$ 3,917,389**

Postemployment Healthcare Investments

10 Largest Holdings in Descending Order by Fair Value

As of June 30, 2014

(Dollar Amounts in Thousands)

Description	Maturity Date	Interest Rate (%)	Par Value	Fair Value
PSERS Short-Term Investment Fund	Various	Various	$ 141,681	$ 141,681
Wilmington US Government MM	N/A	Various	60,906	60,906
Wilmington US Government MM	N/A	Various	10,549	10,549
GNMA Guaranteed REMIC 2010-87 Class LH	08/20/36	2.500	2,314	2,362
GNMA Guaranteed REMIC 2006-31 Class E	05/16/39	4.702	1,602	1,631
JPMorgan Chase & Co.	09/15/14	5.125	1,238	1,250
Mercedes-Benz Auto Lease Trust 2013-B Class A3	07/15/16	0.620	1,105	1,106
Public Service Electric & Gas Company	08/15/14	5.000	1,060	1,066
FHLMC Multiclass 3625 Class AJ	03/15/23	4.000	881	893
Colgate-Palmolive Company	09/27/41	0.000	800	797
Total of 10 Largest Holdings				**$ 222,241**

Comparison of Investment Activity Income
For Fiscal Years Ended June 30, 2014 and 2013
(Dollar Amounts in Thousands)

Investment Activity	**2014**	2013
Net appreciation in fair value of investments	**$ 6,023,861**	$ 3,427,309
Short-term	**8,702**	9,290
Fixed income	**220,447**	228,760
Common and preferred stock	**284,808**	255,248
Collective trust funds	**7,069**	17,749
Real estate	**374,076**	251,742
Alternative investments	**642,727**	485,622
Total investment activity income	**$ 7,561,690**	$ 4,675,720

Brokers' fees on equity investment transactions for the fiscal year ended June 30, 2014 were $7.9 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, 2014, the System earned $75,000 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, 2014

Broker Name	**Fees Paid**	**Broker Name**	**Fees Paid**
Goldman Sachs & Company	$ 882,929	Fimat USA	$ 234,221
Citigroup Global Markets Incorporated	462,638	JPMorgan Chase & Co.	233,840
Instinet Corporation	336,828	Wells Fargo Securities	177,572
BNY Mellon	311,062	Daiwa Securities	173,260
Merrill Lynch	302,137	Royal Bank of Scotland	132,400
UBS Securities	298,054	Macquarie Equities Limited	121,714
Jones & Associates	295,599	Liquidnet Incorporated	113,308
Credit Suisse First Boston	293,947	Deutsche Bank	105,746
Morgan Stanley & Company	287,202		

Professional Consultants
External Investment Advisors
As of June 30, 2014

Absolute Return Managers
- Apollo Aviation Services II, LP
- Aeolus Capital Management, Ltd.
- Anderson Global Macro, LLC
- 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.
- Pacific Investment Management Company
- Perry Capital, LLC

U.S. Equity Managers
- AH Lisanti Capital Growth, LLC
- First Pacific Advisors, Inc.
- NorthPointe 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.
- Westwood Global Investments, LLC

Commodity Managers
- Black River Asset Management, LLC
- Credit Suisse Asset Management, LLC
- Gresham Investment Management, LLC
- 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
- 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
- The Carlyle Group
- TPG Partners, LP

Non-U.S. Developed Markets Fixed Income Managers
- AllianceBernstein, LP
- Strategic Fixed Income, LLC

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.

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

Risk Parity Managers
- AQR Capital Management, LLC
- 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
- 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
- Morgan Stanley Domestic Real Estate Fund IV, LP
- Morgan Stanley Int'l. Real Estate Fund IV, V, & VI, LP
- Morgan Stanley Real Estate Fund II, LP
- Morgan Stanley Real Estate Fund V US, LP
- Morgan Stanley Real Estate Fund VII Global, LP
- O'Connor North American Property Partners I & II, LP
- Paladin Realty Latin America Investors III, LP
- Peabody Global Real Estate Partners
- PRISA
- ProLogis North American Industrial Fund, LP
- 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
- Whitehall Street Real Estate VII & VIII, 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
- Clarity Partners I & II, LP
- Co-Investment Fund 2000, LP
- Co-Investment Fund II, LP
- Coller International Partners VI, LP
- Credit Suisse Equity Partners, 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
- Edgewater Growth Capital Partners, LP
- Edgewater Private Equity Fund III, LP
- Evergreen Pacific Partners I & II, LP
- First Reserve Fund XI & XII, LP
- Furman Selz Investors III, LP
- Goldpoint Partners Co-Investment Fund V, LP
- Graham Partners Investments, LP
- Greenwich Street Capital Partners II, LP
- Halifax Capital Partners, LP
- Headland Private Equity Fund 6, LP
- HgCapital 7, LP

Professional Consultants (Continued)

- Incline Equity Partners III, LP
- Irving Place Capital Partners II & III, LP
- Jefferies Capital Partners IV, LP
- Jefferson Partners Fund IV, LP
- KBL Healthcare Ventures, LP
- KKR 2006 Fund, LP
- KRG Capital Fund II, III, & IV, LP
- Landmark Equity Partners IV, V, XIII, & XIV, LP
- Landmark Mezzanine Partners, LP
- 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
- Morgan Stanley Private Equity Asia Fund IV, LP
- Navis Asia Fund V, 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
- Nordic Capital VII Beta, LP
- Novitas Capital I & II, LP
- 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
- Providence Equity Partners VI, LP
- Psilos Group Partners III, LP
- Quadrangle Capital Partners I & II, 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 Fifth Cinven Fund No. 1, LP
- The Fourth Cinven Fund
- TPG Partners V & VI, LP
- Trilantic Capital Partners IV, LP
- Trilantic Capital Partners V (North America), LP
- U.S. Equity Partners II, LP
- Wicks Communications & Media Partners, 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, LP (Series Two, Three, & Four)
- Cerberus Institutional Partners 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
- Versa Capital Fund I & II, LP
- Windjammer Senior Equity Fund III & IV, LP

Alternative Investment Consultant

- Portfolio Advisors, LLC

Custodian Bank and Securities Lending Agent

- The Bank of New York Mellon Corporation

Absolute Return Consultant

- Aksia, LLC

Investment Accounting Application Service Provider

- Financial Control Systems, Inc.

Investment Evaluator and General Investment Consultant

- Hewitt EnnisKnupp

Proxy Voting Agent

- Glass, Lewis & Co., LLC

Real Estate Investment Consultant

- Courtland Partners, Ltd.