# INVESTMENT



# 1994

The System celebrated it's 75<sup>th</sup> anniversary. Net assets reached \$24 Billion. Act 29 gave Board of Trustees increased authority to invest the Fund as "prudent persons".





COMMONWEALTH OF PENNSYLVANIA PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM

ALAN H. VAN NOORD, CFA Chief Investment Officer

# **Investment Overview**

## **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 overall return objective is to realize a return sufficient to achieve funding adequacy on an inflation-adjusted basis. Funding adequacy is achieved when the actuarial market value of assets is at least equal to the System's projected benefit obligations. The System has a return objective of meeting or exceeding the targeted actuarial rate of return (currently 8.5%) 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, which is based on the Board-established asset allocation structure, is a custom benchmark designed to generate a return that meets the actuarial rate of return assumption).





#### Risk Objectives

- 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 12% 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 at least once per 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 internal investment managers. The Board also retains various investment consultants to assist with the formulation and implementation of investment policies.

#### **Operations**

The Board provides oversight of investment activities through the Finance Committee that makes recommendations to the Board. 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, internal investment managers, and Investment Accounting staff, assist the Board in achieving investment objectives and monitoring compliance with investment policies. For the fiscal year ended June 30, 2008, Wilshire Associates Incorporated (Wilshire) served as the general investment consultant to assist the Board 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 utilized 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 Investment Policy Statement, Objectives and Guidelines regarding asset allocation, 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 year end, 50 external investment management firms were managing \$30.7 billion in assets of the System, \$18.9 billion in assets were managed by the System's internal investment managers, and the remaining \$14.3 billion in assets were managed by numerous emerging, alternative investment, and real estate 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 its peer group.

#### **Asset Allocation**

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The Board reviews the long-term asset allocation targets of the System at least annually, usually in the first quarter of the 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 Board believes that 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, shall take 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 Board's willingness and ability to take risk; and,
- The employers' (Commonwealth and school districts) financial strength.

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 long-term target allocation as of June 30, 2008 included an equity target allocation of **50.0%** consisting of publicly traded stocks. Specific targets have been established for U.S. equity exposure (22.5%) and international equity exposure (27.50%). Within the U.S. equity target, the portfolios are diversified between large, small and micro capitalization investment managers, and growth and value investment managers. The international equity exposure includes both developed and emerging markets portfolios as well as large and small capitalization investment managers.

The fixed income target allocation of **22.0%** consisted of U.S. core fixed income exposure (8.0%), Treasury Inflation-Protected Securities exposure (5.0%), high yield and opportunistic fixed income exposure (5.0%), and global fixed income exposure (4.0%). Within these categories, all sectors of the bond market are represented.

The real estate target allocation of **10.0%** consisted primarily of opportunistic limited partnerships and publicly traded real estate securities. During the fiscal year ended June 30, 2008, the Board increased the allocation to real estate from 8.0% by reducing the target equity allocation.

Alternative investments had a target of **13.0%**. The primary vehicle used to invest funds in this asset class 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 and unlisted subordinated debt positions on behalf of PSERS and other limited partners.

The commodities target allocation of **5.0%** consists 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.

Finally, unallocated cash of the System has an asset allocation target of **0.0%** since cash historically represents the lowest returning asset class over time.

#### **Investment Results**

As of June 30, 2008, the fair value of the investment portfolio was \$63.9 billion, a decrease of \$4.6 billion from last year's value. This decrease came primarily from net investment losses (\$1.8 billion) and benefit payments in excess of member and employer contributions (\$3.0 billion) which was partially offset by net changes in other investment assets and liabilities (\$0.2 billion). The investment portfolio, as invested, was composed of 51.6% common and preferred stocks (equity), 20.8% fixed income investments, 12.8% alternative investments, 9.7% real estate, and 5.1% commodities at June 30, 2008. The table on page 77 illustrates a more detailed description of the investment portfolio's asset classes in dollars and as a percentage of the total investment portfolio.



The past fiscal year saw mixed investment market returns across the major asset classes. The market psychology became increasingly negative as the fiscal year progressed. Negative events started in the fiscal first quarter as the housing bubble started deflating, creating concerns about the ability of sub prime borrowers to repay their mortgages. Events began to accelerate after that as major financial institutions had a series of rising sub prime related write downs which continued throughout the remainder of the fiscal year. With home prices falling, the ability of consumers to borrow against the equity in their homes significantly decreased, leading to fears of a consumer driven recession. Real gross domestic product figures for the U.S. during the fiscal year declined to as low as -0.2% in the fourth quarter of 2007. In addition, the unemployment rate in the U.S. increased from 4.6% in June 2007 to 5.5% in June 2008. To address concerns about slowing economic growth and tightening credit conditions, the Federal Reserve lowered the Fed Funds target rate during the fiscal year from 5.25% to 2.00%. In addition, the increasing liquidity strains on the financial system required the Federal Reserve to step in and broker a takeover of Bear Stearns, a large financial institution, by JP Morgan via guarantees of \$29 billion of debt.

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Adding to the negative news, commodity prices soared during the past fiscal year. Oil prices almost doubled during the fiscal year ended June 30, 2008, increasing from \$70.68 to \$140.00 per barrel. Other commodity prices also increased substantially. The increases can be attributed to tight supplies as well as a weakening U.S. dollar. The U.S. Dollar Index (average of exchange rates between the U.S. dollar and six other major world currencies) declined by 11.5% during the fiscal year. This led to rising inflation as the Consumer Price Index, a measure of inflation, doubled from 2% at the end of last fiscal year to 4% at the end of the current fiscal year. The combination of rising inflation and falling growth in the U.S. has led to significant concerns about stagflation.

In this environment, most equity markets around the world had negative returns during the fiscal year. The Dow Jones Wilshire 5000 Index, a U.S. equity index, returned -12.53% during the fiscal year. The past fiscal year saw the worst quarterly loss since the third quarter of 2002 (-9.52% in the quarter ended March 31, 2008) and the worst monthly loss since September 2002 (-8.14% in June 2008). Foreign markets in local currency terms fared equally as bad as the Morgan Stanley Capital International (MSCI) All-Country World (ACW) ex. U.S. Index, an international equity index, returned -14.61% when hedged back to the U.S. dollar. However, the unhedged MSCI ACWI ex. U.S. index returned -6.20%, much better than the hedged index due to the weakness of the U.S. dollar. According to the FTSE EPRA/NAREIT Global Real Estate Index, a free-float index designed to track the performance of listed real estate companies and real estate investment trusts worldwide, global publicly traded real estate securities (PTRES) returned -19.72% during the past fiscal year. PTRES performance suffered due to the deterioration of credit markets, uncertain asset values, and the weakned outlook for the U.S. economy.

Markets that performed better in this environment were commodities and fixed income. The Dow Jones – AIG Commodity Index, an index of 19 highly liquid and diversified commodities, returned 41.53% during the fiscal year due to soaring commodity prices and the falling U.S. dollar. The Lehman U.S. Universal Index, a U.S. fixed income index, was up 6.24% and the Lehman Multiverse Index, a global fixed income index, was up 12.36%. Returns in both of these indexes were driven by the Fed reducing the Fed Funds rate while the Lehman Multiverse Index was also driven by the weakening dollar. The Lehman U.S. TIPS Index, an index of U.S. treasury inflation protection securities, returned 15.09% driven by falling interest rates and rising inflation.

As a result of the negative returns from domestic and international stock portfolios and real estate, the System generated a total return of -2.82% for the one-year period ended June 30, 2008. This return fell short of the total fund Policy Index return of -1.84% by 98 basis points. Annualized total returns for the three- and five-year periods ended June 30, 2008 were 11.25% and 13.21%, respectively. These returns exceeded the total fund Policy Index returns for the three- and five-year periods ended June 30, 2008 were 11.25% and 13.21%, respectively. These returns exceeded the total fund Policy Index returns for the three- and five-year periods ended June 30, 2008 by 208 and 240 basis points, respectively.

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

The following table provides the System's total investment return 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, 2008		S Í
	1 Year	3 Years	5 Years
<b>PSERS Total Portfolio</b>	<b>-2.82</b>	<b>11.25</b>	<b>13.21</b>
Total Fund Policy Index	-1.84	9.17	10.81
Median Public Defined Benefit Plan (DBP) Fund Universe (Wilshire Database)	-5.29	7.01	9.71
<b>PSERS Domestic Stock Portfolios</b>	<b>-13.98</b>	<b>4.33</b>	<b>8.47</b>
Dow Jones Wilshire 5000 Index	-12.53	5.02	8.73
Median Public DBP Fund Universe - Domestic Equities (Wilshire Database)	-13.13	4.47	8.32
<b>PSERS International Stock Portfolios</b>	<b>-9.81</b>	<b>15.72</b>	<b>19.08</b>
MSCI All-Country World Index Ex. U.S. (1)	-8.76	14.71	18.52
Median Public DBP Fund Universe - International Equities (Wilshire Database)	-7.60	15.26	18.10
<b>PSERS Domestic Fixed Income Portfolios</b>	<b>7.81</b>	<b>4.52</b>	<b>5.10</b>
Domestic Fixed Income Policy Index (2)	6.24	3.81	3.69
Median Public DBP Fund Universe - Domestic Bonds (Wilshire Database)	5.32	4.02	4.22
<b>PSERS Global Fixed Income Portfolios</b>	<b>10.02</b>	<b>5.22</b>	<b>5.78</b>
Global Fixed Income Policy Index (3)	12.36	5.67	5.82
Median Public DBP Fund Universe - Global Bonds (Wilshire Database)	11.69	5.57	6.39
PSERS Commodity Portfolios	<b>34.72</b>	<b>N/A</b>	<b>N/A</b>
Dow Jones-AIG Commodity Index	41.53	N/A	N/A
<b>PSERS Real Estate (4)</b>	<b>-5.22</b>	<b>19.43</b>	<b>21.50</b>
Blended Real Estate Index (5)	5.41	14.63	15.14
Median Public DBP Fund Universe - Real Estate (Wilshire Database)	2.04	12.22	15.26
<b>PSERS Alternative Investments (4)</b>	<b>19.14</b>	<b>25.65</b>	<b>24.48</b>
Venture Economics Median Return, Vintage Year Weighted	6.23	10.34	8.81
Median Public DBP Fund Universe - Private Equity (Wilshire Database)	13.74	22.62	17.93

(1) 30% hedged to the U.S. dollar effective July 1, 2006; previously unhedged.

(2) Lehman Brothers U.S. Universal Index effective April 1, 2007; previously was the Lehman Brothers Aggregate Bond Index.

(3) Lehman Brothers Multiverse Index effective April 1, 2007; previously was the Lehman Brothers Global Aggregate Bond Index.

(4) Returns reported on a one-quarter lag, except for publicly traded real estate security investments.

(5) Returns presented are a blend of the FTSE EPRA/NAREIT Global Real Estate Index (22.9%) and the NCREIF Index (77.1%). The NCREIF Index is reported on a one-quarter lag. Prior to October 1, 2007, the Dow Jones Wilshire Real Estate Securities Index was used in place of the FTSE EPRA/NAREIT Global Real Estate Index.



The System also is involved in a securities lending program administered by The Bank of New York Mellon Corporation. This program provides incremental income to the System by lending securities in the System's portfolio to securities dealers in exchange for either cash collateral, which can be reinvested to generate income, or non-cash collateral plus a cash fee. This program generated \$48.9 million in additional net income during the year.

#### Accomplishments

While the System's returns during the fiscal year ended June 30, 2008 were negative given an asset allocation tilted towards equities, the System generated returns that put the System in the 2<sup>nd</sup> quartile of all public defined benefit pension funds in the country for the fiscal year ended June 30, 2008 as measured by Wilshire. For the three- and five- year periods ended June 30, 2008, the System continues to rank in the top 10% of all public defined benefit pension funds in the country as measured by Wilshire. The strong long-term track record can be attributed to the combined efforts of the Board, the System's Investment Office and Investment Accounting staff, and its external consultants and investment advisors. Without their efforts, these accomplishments would not be possible.

The System continued its efforts to diversify its market exposures during FY 2008 as the target allocation to commodities, an asset class used as a risk diversifier added in FY2007, was fully funded.

The System continued its multi-year project to implement an independent accounting book of record for the System's investment transactions and holdings. In FY 2008, the System continued preparation work to convert all of its real estate and alternative investment portfolios from an Excelbased accounting system to its internal accounting software provided by Financial Control Systems, Inc. and continued to develop various management reports using the internal accounting software.

#### Market Update

Subsequent to the close of FY 2008, the equity markets incurred significant losses due to a deepening credit crisis in the U.S., the government bailout of large financial institutions, and the bankruptcy of Lehman Brothers on September 15, 2008. For the quarter ended September 30, 2008, the Dow Jones Wilshire 5000 Index was down 8.67% while the MSCI ACW ex. U.S. Index was down 21.91%. In addition, slowing economic growth projections caused commodity returns to retrace significantly as indicated by the negative 27.70% return of the Dow Jones-AIG Commodity Index. The System's assets have declined by approximately \$8 billion as of September 30, 2008 due to investment losses and the payment of benefits. The estimated return for the quarter was approximately -11.10%.





#### Summary

The System had a very challenging fiscal year ended June 30, 2008 as the System generated negative absolute returns. The deflating housing bubble, weakening economy, soaring commodity prices, weakening U.S. dollar, and rising inflation led to negative returns for U.S. and international equity markets and real estate. For the fiscal year ended June 30, 2008, the System continued to exceed its long-term actuarial investment rate of return assumption of 8.5% on a three- and five-year basis. We continue to believe that the System's asset allocation is structured to generate a long-term return that meets or exceeds the targeted actuarial rate of return assumption of the System for years to come.

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Alan H. Van Noord, CFA Chief Investment Officer



# Portfolio Summary Statistics Asset Allocation As of June 30, 2008

(Dollar Amounts in Thousands)

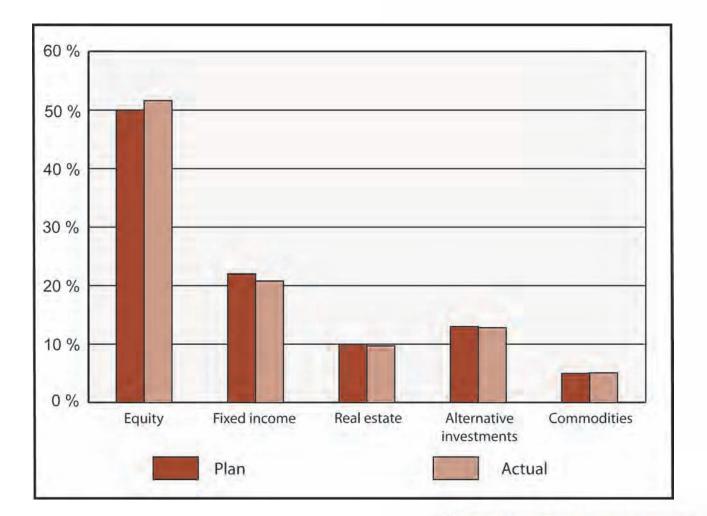
Pension investments	Fair Value (\$)	% Fair Value
Common and preferred stock (Equity):		
Domestic common and preferred stock	\$ 8,995,463	14.4%
Collective trust funds	4,808,851	7.7%
International common and preferred stock	14,071,010	22.5%
Subtotal per Statement of Plan Net Assets	27,875,324	44.6%
Net Asset Allocation Adjustment*	4,414,379	7.0%
Total Common and preferred stock - Asset Allocation Basis	32,289,703	51.6%
Fixed income:		
Domestic mortgage-backed securities	5,389,010	8.6%
U.S. government and agency obligations	1,785,467	2.9%
Domestic corporate and taxable municipal bonds	3,277,625	5.2%
Miscellaneous domestic fixed income	290,847	0.5%
Collective trust funds	2,294,869	3.7%
International fixed income	2,139,075	3.4%
Subtotal per Statement of Plan Net Assets	15,176,893	24.3%
Net Asset Allocation Adjustment*	(2,212,676)	-3.5%
Total Fixed income - Asset Allocation Basis	12,964,217	20.8%
Real estate:		
Equity real estate	4,673,806	7.5%
Directly-owned real estate	278,034	0.4%
Subtotal per Statement of Plan Net Assets	4,951,840	7.9%
Net Asset Allocation Adjustment*	1,108,978	1.8%
Total Real estate - Asset Allocation Basis	6,060,818	9.7%
Alternative investments:		
Private equity	5,752,298	9.1%
Private debt	2,371,506	3.8%
Venture capital	741,848	1.2%
Subtotal per Statement of Plan Net Assets	8,865,652	14.1%
Net Asset Allocation Adjustment*	(832,965)	-1.3%
Total Alternative investments - Asset Allocation Basis	8,032,687	12.8%
Commodities:		
Net Asset Allocation Adjustment*	3,174,681	5.1%
Total Commodities - Asset Allocation Basis	3,174,681	5.1%
Pension investments - Asset Allocation Basis	\$ 62,522,106	100.0%
Net pension investment payable	1,188,373	
Pension investments per Statement of Plan Net Assets	\$ 63,710,479	
Postemployment Healthcare investments	\$ 181,741	100.0%

\* - Includes Short-term investments which are allocated to the asset class of the investment manager which holds them, reclassifications of certain investments between asset classes and investment receivables\payables to adjust the Statement of Plan Net Assets' 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, 2008

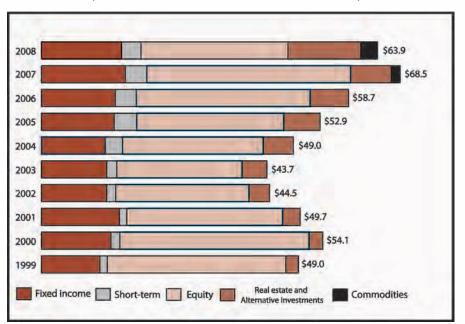
Asset Category	Plan	Actual
Common and preferred stock (Equity)	50.0%	51.6%
Fixed income	22.0%	20.8%
Real estate	10.0%	9.7%
Alternative investments	13.0%	12.8%
Commodities	5.0%	5.1%
Total	100.0%	100.0%





# 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 asset classes. Information on the complete holdings of the System is available by writing to the Public School Employees' Retirement System, Press Secretary, P. O. Box 125, Harrisburg, PA 17108.

# **Domestic Common and Preferred Stock**

#### 10 Largest Holdings in Descending Order by Fair Value

#### As of June 30, 2008

## (Dollar Amounts and Shares in Thousands)

	No. of	Fair
Description	Shares	Value (\$)
Exxon Mobil Corporation	3,059	269,622
Security Capital Preferred Growth	11,854	197,094
General Electric Company	5,074	135,423
Chevron Corporation	1,303	129,153
Microsoft Corporation	4,112	113,108
AT&T Inc.	3,040	102,405
Procter & Gamble Company	1,549	94,186
Johnson & Johnson	1,430	92,035
ProLogis	1,603	87,118
Schlumberger Limited	792	85,083
Total of 10 Largest Holdings	-	1,305,227
Total System Holdings - Domestic Common and Preferred Stock		8,995,463



# Collective Trust Funds - Common and Preferred Stock 10 Largest Holdings in Descending Order by Fair Value As of June 30, 2008

#### (Dollar Amounts and Shares in Thousands)

Description	No. of Shares	Fair Value (\$)
Bridgewater Pure Alpha Fund II Ltd.	673	976,406
Barclays Global Ascent Ltd.	500	649,747
First Quadrant Global Macro Fund Ltd.	5,498	633,113
AQR Offshore Multi-Strategy Fund Ltd.	8	609,342
Wellington Trust Company Commodities Portfolio	23,830	443,484
Barclays Global Investors Emerging Markets Strategic Insights Fund	9,802	422,507
Martin Currie Business Trust Global Emerging Markets Fund	23,231	200,946
Boston Company US Micro Cap Hedge Fund	149	200,825
Morgan Stanley Capital International Emerging Markets Free Index	4,822	197,067
Goldman Sachs Blended Currency Fund	16,229	129,295
Total of 10 Largest Holdings	-	4,462,732
Total System Holdings - Collective Trust Funds - Common		4,808,851
and Preferred Stock	-	

# International Common and Preferred Stock 10 Largest Holdings in Descending Order by Fair Value As of June 30, 2008

(Dollar	Amounts	and	Shares	in	Thousands)	

Description	No. of Shares	Fair Value (\$)
Nestle SA	4,305	195,072
BP PLC	14,176	164,550
BHP Billiton PLC	3,964	151,464
Vodafone Group PLC	46,644	138,455
Rio Tinto PLC	1,139	136,204
E.ON AG	610	123,187
Gazprom	1,875	108,723
Novartis AG	1,909	105,421
Petroleo Brasileiro SA	1,487	105,358
Royal Dutch Shell Class A	2,519	103,500
Total of 10 Largest Holdings		1,331,934
Total System Holdings - International Common and		14,071,010
Preferred Stock		



# Domestic and International Fixed Income 10 Largest Holdings in Descending Order by Fair Value As of June 30, 2008

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# (Dollar Amounts and Shares in Thousands)

Description	Maturity Date	Interest Rate (%)	Par Value(\$) or No. of Shares	Fair Value (\$)
U.S. Treasury - Inflation Index	01/15/25	2.375	220,288	231,027
U.S. Treasury - Inflation Index	01/15/26	2.000	180,923	179,381
U.S. Treasury - Inflation Index	01/15/15	1.625	151,412	156,368
Germany (Federal Republic)	09/12/08	3.500	91,124	143,289
U.S. Treasury - Inflation Index	07/15/13	1.875	122,639	129,653
U.S. Treasury - Inflation Index	01/15/11	3.500	98,712	107,457
U.S. Treasury - Inflation Index	01/15/14	2.000	99,646	105,788
Merrill Lynch & Company	02/13/09	4.815	75,000	100,735
U.S. Treasury - Inflation Index	01/15/16	2.000	94,536	99,573
U.S. Treasury - Inflation Index	01/15/27	2.375	88,313	92,584
Total of 10 Largest Holdings				1,345,855
Total System Holdings - Domestic and	International F	ixed Income	•	15,176,893

# Postemployment Healthcare Investments 10 Largest Holdings in Descending Order by Fair Value As of June 30, 2008

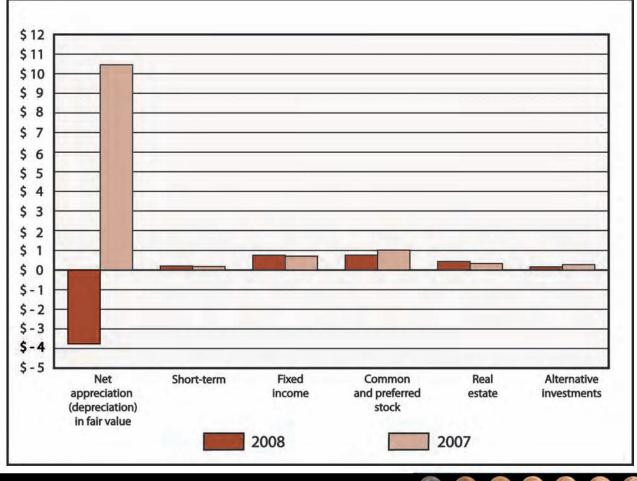
#### (Dollar Amounts in Thousands)

Description	Maturity Date	Interest Rate (%)	Par Value (\$)	Fair Value (\$)
PA Treasury Domestic Short-Term Investment Fund	Various	Various	80,589	80,589
M & T Bank Repurchase Agreement	07/01/08	1.250	26,114	26,114
M & T Bank Repurchase Agreement	07/01/08	1.925	14,870	14,870
FHLB Discount Note	07/11/08	1.954	4,988	4,988
FNMA Discount Note	07/25/08	2.004	4,988	4,988
FHLB Discount Note	08/11/08	2.034	4,987	4,987
FNMA REMIC Trust 2002-83 Class LD	12/25/27	5.500	3,039	3,049
FHLMC Multiclass 2492 Class PE	01/15/22	6.000	2,750	2,805
American Express Credit Trust 2006-A Class A	08/15/11	2.461	2,315	2,311
FHLMC Multiclass 2515 Class ED	03/15/17	5.000	2,151	2,173
Total of 10 Largest Holdings				
Total System Holdings - Postemployment Healthcare Investments				



Investing Activities	2008	2007
Net appreciation (depreciation) in fair value of investments	\$ (3,763,381)	\$ 10,457,561
Short-term	211,390	189,800
Fixed income	758,142	713,257
Common and preferred stock	763,615	1,019,322
Real estate	437,880	334,264
Alternative investments	167,052	276,350
Total investment activity income (loss)	\$ (1,425,302)	\$ 12,990,554

(Dollar Amounts in Billions)



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Brokers' fees on equity investment transactions for the fiscal year ended June 30, 2008 were \$27.3 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, 2008, the System earned \$1.1 million from a 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, 2008

	Fees		Fees
Broker Name	Paid (\$)	Broker Name	Paid (\$)
Merrill Lynch	1,860,754	Knight Securities	324,349
UBS Securities	1,789,474	Dresdner Kleinwort	282,931
JP Morgan	1,437,713	Jones & Associates	248,795
Citigroup/Salomon	1,422,156	Weeden & Company	221,863
Credit Suisse First Boston	1,388,333	Deutche Alex Brown	220,322
Goldman Sachs & Company	1,284,799	Jefferies & Company Incorporated	206,119
Deutsche Bank	1,243,427	BNY Brokerage	204,900
Bear Stearns	1,230,589	HSBC Securities Incorporated	198,000
Morgan Stanley & Company	1,191,276	Redburn Partners	174,537
Lehman Brothers	915,449	Sanford Bernstein & Company	155,542
DBK Securities	670,813	BNP Paribas	145,392
Macquaries Equities	632,962	Cazenove Incorporated	143,260
Credit Lyonnais Securities	609,375	Exane Securities	139,919
SG Securities	547,696	Westminster Brokerage, LLC	126,712
ITG Securities	453,623	ING Securities	125,077
Liquidnet Incorporated	449,178	Carnegie International Ltd	122,777
Nomura Securities International	442,262	Bank of America	118,788
Instinet Corporation	425,785	Banco Santander	113,854
ABN AMRO	370,988	Calyon Securities	110,085
Cantor, Fitzgerald & Company	340,542	Credit Agricole Cheuvreux	100,643



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#### **Global Macro Managers**

- AQR Capital Management
- Barclays Global Investors, NA
- Bridgewater Associates, Inc.
- First Quadrant, LP

#### **Portable Alpha Managers**

- Boston Company Asset Management, LLC (The)
- Pacific Investment Management Company

#### U.S. Enhanced Equity Index Manager

Acorn Derivatives Management Corporation

## U.S. Style-Oriented Small Cap Equity Managers

- Boston Company Asset Management, LLC (The)
- Emerald Advisors, Inc.
- First Pacific Advisors, Inc.
- NorthPointe Capital, LLC
- Wellington Management Company, LLP
- William Blair & Company, LLC

#### U.S. Enhanced Mid Cap Equity Manager

Barclays Global Investors, NA

#### **U.S. Micro Cap Equity Managers**

- Donald Smith & Company, Inc.
- NorthPointe Capital, LLC
- Oberweis Asset Management, Inc.
- Thomson Horstmann & Bryant, Inc.
- Turner Investment Partners

#### **Enhanced Commodity Index Managers**

- Credit Suisse Asset Management
- Lehman Brothers Asset Management



#### **Full Discretion Commodity Program Managers**

- Deutsche Asset Management
- Schroders Investment Management
- Wellington Management Company, LLP

#### **Publicly-Traded Real Estate Securities Managers**

- Cohen & Steers Capital Management, Inc.
- European Investors, Inc.
- LaSalle Investment Management
- Morgan Stanley Investment Management, Inc.
- Security Capital Research & Management, Inc.

#### Non-U.S. Emerging Market Equity Managers

- Batterymarch Financial Management, Inc.
- Boston Company Asset Management, LLC (The)
- Templeton Investment Counsel, Inc.
- Wellington Management Company, LLP
- William Blair & Company, LLC

#### Non-U.S. Large Cap Equity Managers

- AllianceBernstein Institutional Investment Management
- Baillie Gifford Overseas, Ltd.
- Barclays Global Investors, NA
- Marathon Asset Management Ltd.
- Martin Currie, Inc.
- Mercator Asset Management, LP

#### Non-U.S. Small Cap Equity Managers

- Acadian Asset Management
- AXA Rosenberg Investment Management
- Batterymarch Financial Management, Inc.
- GlobeFlex Capital, LP
- Munder Capital Management
- Oberweis Asset Management, Inc.
- Wasatch Advisors



#### Active Currency Hedging Overlay Program Manager

• Pareto Investment Management, Ltd.

#### **Active Currency Program Managers**

- FX Concepts, Inc.
- Goldman Sachs Asset Management
- Mellon Capital Management

#### U.S. Core Plus Fixed Income Managers

- Aberdeen Asset Management, Inc.
- Barclays Global Investors, NA
- Logan Circle Partners
- Pacific Investment Management Company
- Western Asset Management Company

#### U.S. High Yield Fixed Income Manager

MacKay-Shields Financial Corporation

#### **Credit Opportunities Managers**

- BlackRock Mortgage (Offshore) Investors, LP
- Hyperion Brookfield Asset Management, Inc.
- Oaktree Capital Management, LP

#### **Absolute Return Manager**

Brigade Capital Management

#### LIBOR-Plus Short Term Investment Manager

• BlackRock Financial Management, Inc.



#### **Treasury Inflation-Protected Securities Manager**

• Bridgewater Associates, Inc.

#### **Global Core Plus Fixed Income Managers**

- Aberdeen Asset Management, Inc.
- Fischer Francis Trees & Watts, Inc.
- Rogge Global Partners

#### **Real Estate Advisors**

- Charter Oak Advisors, Inc.
- GF Management, Inc.
- Grandbridge Real Estate Capital, LLC
- Grosvenor Investment Management U.S., Inc.
- L&B Realty Advisors, LLP

#### **Real Estate Partnerships**

- Apollo European Real Estate Fund III, LP
- Apollo Real Estate Finance Corporation
- AREFIN Co-Invest Corporation
- AvalonBay Value Added Fund, LP
- Avenue Real Estate Fund Parallel, LP
- Beacon Capital Strategic Partners V, LP
- Berwind Investment Partnership IV, V & VI, LP
- Blackstone Real Estate Partners V & VI.TE.1, LP
- BPG Co-Investment Partnership, LP
- Broadway Partners Real Estate Fund P II & III, LP
- Carlyle Europe Real Estate Partners III, LP
- Carlyle Realty Partners III, IV & V, LP
- Centerline Diversified Risk CMBS Fund I & II, LLC
- Centerline High Yield CMBS Fund III, LLC
- Centerline RE Special Situations Mortgage Fund, LLC
- Cornerstone Patriot Fund, LP
- CS Strategic Partners IV RE, LP
- CSFB Strategic Partners II & III RE, LP
- DLJ Real Estate Capital Partners II, III & IV, LP
- DRA Growth and Income Fund VI, LP
- Fillmore West Fund, LP
- Five Arrows Realty Securities V, LP
- Fortress Investment Fund IV & V, LP
- Fortress PSERS Investment, LP
- Hines U.S. Office Value Added Fund, LP
- JPMCB Strategic Property Fund



#### **Real Estate Partnerships (continued)**

- Legg Mason Real Estate Capital I & II, Inc.
- Lehman Brothers PSERS Real Estate, LP
- Lehman Brothers Real Estate Pension Partners II & III, LP
- LEM Real Estate Mezzanine Fund II, LP
- LF Strategic Realty Investors I & II, LP
- Lubert-Adler Real Estate Fund II, III, IV, & V, LP
- Madison Marquette Retail Enhancement Fund, LP
- MGPA Europe Fund III, LP
- Morgan Stanley Real Estate Fund II, LP
- Morgan Stanley Real Estate Fund IV Special Domestic, LP
- Morgan Stanley Real Estate Fund IV, V & VI, Special International, LP
- Morgan Stanley Real Estate Fund V, Special U.S., LP
- O'Connor North American Property Partners I & II, LP
- Peabody Global Real Estate Partners, LP
- Prime Property Fund, LLC
- PRISA
- ProLogis North American Industrial Fund, LP
- RCG Longview Equity Fund, LP
- RREEF America REIT II, Inc.
- Stockbridge Real Estate Fund I & II, LP
- Strategic Partners Value Enhancement Fund, LP
- UBS (US) Trumbull Property Fund, LP
- Westbrook Real Estate Fund, LP
- Whitehall Street Real Estate V & VI, 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
- Adams Capital Management, LP
- Aisling Capital II, LP
- Allegheny New Mountain Partners, LP
- Apax Europe VII, LP
- Baring Asia Private Equity Fund III & IV, LP
- Bear Stearns Merchant Banking Partners II & III, LP
- BG Media Investors, LP
- Blue Point Capital Partners (B) I & II, LP
- Bridgepoint Capital II Partnership, LP
- Bridgepoint Europe IA, IIA & IIIA, LP



#### Private Equity/Venture Capital Partnerships (continued)

- Bruckmann, Rosser, Sherrill & Company, LP
- Capital International Private Equity Fund V, LP
- Catterton Growth Partners, LP
- Catterton Partners V & VI, LP
- Cinven Fund (Fourth), LP (The)
- Clarity Partners I & II, LP
- Co-Investment 2000 Fund, LP (The)
- Co-Investment Fund II, LP (The)
- Credit Suisse First Boston Equity Partners, LP
- Credit Suisse First Boston International Equity Partners, LP
- Crestview Capital Partners, LP
- Cross Atlantic Technology Fund I & II, LP
- CS Strategic Partners IV & IV VC, LP
- CSFB Strategic Partners II, III-B & III-VC, LP
- CVC Capital Partners Asia Pacific III, LP
- Deutsche European Partners IV, LP
- DLJ Merchant Banking Partners III, LP
- DLJ Strategic Partners, LP
- Dubin Clark Fund II, LP
- Edgewater Growth Capital Partners, LP
- Edgewater Private Equity Fund III, LP
- Edison Venture Fund III, LP
- Evergreen Pacific Partners, LP
- First Reserve Fund XI, LP
- Franklin Capital Associates III, LP
- Furman Selz Investors II & III, LP
- Graham Partners Investments (B), LP
- Green Equity Investors II, LP
- Greenpark International Investors III, LP
- Greenwich Street Capital Partners II, LP
- GS Mezzanine Partners, LP
- Halifax Capital Partners, LP
- Heritage Fund I, LP
- HSBC Private Equity Fund 6, LP
- Jefferies Capital Partners IV, LP
- Jefferson Partners Fund IV (PA), LP
- ♦ KBL Partnership, LP
- KKR 2006 Fund, LP
- KRG Capital Fund I, II, III & IV, LP
- Landmark Equity Partners II, III, IV, V & XIII, LP
- Landmark Mezzanine Partners, LP
- Lehman Brothers Communications Investors, LP
- Lehman Brothers Merchant Banking Partners II & IV, LP
- Lehman Brothers Venture Partners 2003-P & V-P, LP
- Lexington Capital Partners I, LP

Lindsay, Goldberg & Bessemer, LP

#### Private Equity/Venture Capital Partnerships (continued)

- LLR Equity Partners I, II & III, LP
- Milestone Partners II & III, LP
- Morgan Stanley Dean Witter Capital Partners 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-A & IV-A, LP
- Novitas Capital I & II, LP
- P/A Fund (The)
- PAI Europe III, IV & V, LP
- Palladium Equity Partners II-A, LP
- Permira IV, LP
- Perseus-Soros BioPharmaceutical Fund, LP
- Platinum Equity Capital Partners-A I & II, 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
- Sterling Capital Partners, LP
- Sterling Venture Partners, LP
- TDH III, LP
- Technology Leaders, LP
- TL Ventures III, LP
- TPG Partners II, V & VI, LP
- U.S. Equity Partners I & II, LP
- Wicks Communications & Media Partners, LP
- Willis Stein & Partners, LP

#### **Private Debt Partnerships**

- Avenue Asia Special Situations Fund II, III & IV, LP
- Avenue Europe Special Situations Fund, LP
- Avenue Special Situations Fund II, III, IV & V, LP
- Cerberus Institutional Partners, LP (Series Two, Three and Four)
- Gleacher Mezzanine Fund I & II, LP
- Gold Hill Venture Lending 03-A, LP
- GSC Partners CDO Investors III & IV, LP
- GSC Recovery II & III, LP
- NYLIM Mezzanine Partners Parallel Fund I & II, LP
- OCM Opportunities Fund VII & VII-B, LP
- Versa Capital Fund I, LP
- Windjammer Senior Equity Fund III, LP



#### **Public Market Emerging Investment Program Managers**

- Ativo Capital Management
- Biondo Group, LLC (The)
- Conestoga Capital Advisors
- Connors Investor Services, Inc.
- Denali Advisors, LLC
- Great Companies, Inc.
- Hanseatic Management Services, Inc.
- John Hsu Capital Group, Inc.
- Opus Capital Management
- Piedmont Investment Advisors
- Pugh Capital Management, Inc.
- Shah Capital Management, Inc.

#### **Alternative Investment Consultant**

Portfolio Advisors, LLC

#### **Custodian and Securities Lending Agent**

• The Bank of New York Mellon Corporation

#### **Investment Accounting Application Service Provider**

• Financial Control Systems, Inc.

#### Investment Evaluator and General Investment Consultant

Wilshire Associates Inc.

#### **Proxy Voting Agent**

• Glass, Lewis & Co., LLC

#### **Real Estate Investment Consultant**

• Courtland Partners, Ltd.







