

***INVESTMENT  
SECTION***

# INVESTMENT SECTION

## INVESTMENT CONSULTANT'S REPORT

### **Introduction**

This report, prepared for the Baltimore County Employees' Retirement System (the "System") by New England Pension Consultants (NEPC), is based on accounting information supplied by the System's custodian, BNYMellon. NEPC relies on this source for security pricing, calculation of accruals, and all transactions. NEPC reconciles the monthly rates of return provided by BNYMellon with those calculated by each investment manager. NEPC exercises reasonable professional care in preparing the performance report. The rates of return are calculated using a time-weighted rate of return methodology based upon market values. The returns are reported on both net of fees and gross of fees to provide comparisons with the appropriate benchmarks.

### **Distinction of Responsibilities**

The Board of Trustees (the "Trustees") of the System is responsible for establishing the investment goals and objectives for the System's Retirement Fund (the "Fund") and sets the appropriate risk levels and asset allocation policies. The criteria used in developing the System's investment policy include: actuarial information, such as funded status, the actuarial return assumption and benefits obligations; risk and return expectations of the capital markets; the financial condition of the County; and practices of similar types of funds. The investment policy has been developed after the Trustees have given careful consideration of the potential financial implication of a wide range of investment policies. The policy describes the degree of pension fund risk that the Trustees, as System fiduciaries, deem appropriate.

In carrying out their duties the Trustees follow acceptable standards of prudence. These standards include: 1) acting for the exclusive benefit of the Fund participants and beneficiaries; 2) exercising skill, care and diligence of a prudent person acting in a similar capacity; and 3) diversifying investments to minimize the risk of large losses. The investment managers required to execute the policy will invest System assets in accordance with the established policy and with their judgments concerning relative investment values. In particular, the investment managers are accorded full discretion to select individual securities, make periodic strategic adjustments and diversify their portfolios.

### **Investment Policy/Structure**

The System's investment policy was designed to provide broad diversification among asset classes in order to maximize return at an appropriate level of risk and minimize the risk of large losses to the System. In addition, asset allocation ranges have also been implemented to maintain compliance with the investment policy and ensure the System will achieve its long-term risk and return objectives.

The System's investment policy is shown below for the broad investment categories:

#### **Investment Policy as of 6/30/08**

<i>Asset Class</i>	<i>Allocation Target</i>	<i>Allocation Range</i>
<i>U. S. Equities</i>	37%	32 - 42%
<i>International Equities</i>	13%	9 - 17%
<i>Private Equities</i>	5%	0 - 7%
<i>Fixed Income</i>	25%	20 - 30%
<i>Hedge FOF</i>	5%	0 - 7%
<i>Real Estate</i>	5%	0 - 7%
<i>Global Asset Allocation</i>	10%	7 - 13%
<b>Total</b>	<b>100%</b>	<b>--</b>

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Within each asset class, the Trustees have employed several investment managers to further diversify the investment approach and minimize style bias. The Trustees have employed both active and passive investment strategies in order to obtain the desired asset allocation mix in the most cost effective and efficient manner.

## Investment Objective

The System's long-term investment objective is to achieve a total rate of return that exceeds the Policy Index, defined here as the actual asset allocation for each asset class invested in its respective index. The Trustees recognize that there will be short-term deviations from these long-term investment objectives, and therefore, have developed performance expectations for the Fund and individual investment managers. The overall Fund is also compared to the Independent Consultants Cooperative (ICC) Public Funds Universe, one of the largest, most representative universes of actual institutional performance results in the industry. At June 30, 2008, this universe contained actual public fund data for 178 public plans with an aggregate market value of \$728 billion.

## Market Overview

Global equity markets, as measured by the MSCI World Index, fell 10.6% for the fiscal year ending June 30, 2008, owing to growing concerns over the U.S. housing and financial markets. Although the year got off to a respectable start, with global equities posting a 2.4% return in the first quarter of the fiscal year, economic woes mounted as the year progressed and subprime debt worked its way through the financial system. Global financial companies, banks and insurance companies were the hardest hit while commodity-linked companies fared the best. The monetary and fiscal authority's efforts to calm the markets were continually undermined by rising commodity prices and growing investor uncertainty throughout the year.

Bonds saw a "flight to quality", which led to widening of spreads between Treasuries bonds and other debt issues during the first three quarters of the fiscal year. Despite a weak fourth quarter close, the Citigroup World Government Bond Index posted a 17.0% return over the fiscal year ending June 30, 2008. Domestic stocks, as measured by the Wilshire 5000, fell 12.5% for the fiscal year ended June 30, 2008. Growth stocks outperformed value stocks over the year, owing to weak returns in the financial sector. The Russell 1000 Growth posted a (6.0%) return for the year compared to a (18.8%) return for the Russell 1000 Value. Large cap stocks outperformed small cap stocks in the quarter with the Russell 1000 posting a (12.4%) return and the Russell 2000, (16.2%). Energy related stocks were the strongest performer over the full year, posting a 23.6% return. Financial stocks trailed with a (41.9%) return for the fiscal year.

Developed international equity markets, as measured by the MSCI EAFE Index, fell 10.6% for the fiscal year in US dollar terms. In local terms, the MSCI EAFE Index fell 20.3% for the year. The UK and Japan were the weakest market over the fiscal year, posting returns of (13.2%) and (12.0%), respectively. However, Japan bounced back in the fourth fiscal quarter posting a 2.5% return. The emerging markets fared the best over the fiscal year, returning 4.6%.

The flight to quality combined with a weak dollar benefited high quality global bonds for most of the fiscal year. US Treasury bonds posted a 10.3% return for the fiscal year. In the fourth fiscal quarter, interest rates moved higher generating negative returns for most fixed income markets. The Lehman Aggregate Index posted a (1.0%) return for the quarter. US Government bonds posted the weakest returns in the quarter with a (1.9%) return. Conversely, high yield bonds posted a 1.8% return in the quarter. Global bonds, which had benefited from a weak dollar for most of the year, posted a (4.2%) return in the quarter as the dollar rose against foreign currency in the quarter.

## Investment Performance

For the fiscal year ended June 30, 2008, the System's investment portfolio lost 4.5%, including dividends and interest income, unrealized gains and losses, and management fees and expenses. The System's domestic equity portfolio returned (13.4%) net of fee return over the fiscal year, trailing the (12.5%) return of the broad U.S. equity market, as measured by the Wilshire 5000 Index. Weak performance among the large cap managers detracted from return over the full year. The System's non-US equity portfolio's net of fee return of (6.5%) exceeded the return of the international equity benchmark due to strong relative performance from the growth international equity

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manager. The one-year private equity portfolio return was 18.1%. The fixed income portfolio returned 3.7% on a net-of-fee basis over the fiscal year and lagged the broad domestic bond market.

To gauge how the overall fund did relative to other public funds the System's gross-of-fee return for the fiscal year was compared to the median public fund in the ICC Universe of Public Funds. The System's gross-of-fee return of (4.5%) ranked in the 50<sup>th</sup> percentile of the ICC Public Funds Universe for the fiscal year. The market value of the System's assets decreased from \$2.25 billion on June 30, 2007 to \$2.06 billion on June 30, 2008. This decrease resulted from investment losses of approximately \$125 million plus net withdrawals of approximately \$65 million.

The net of fee returns for the fiscal year ending June 30, 2008 are shown in the following table.

	Market Value (in Millions)	Percent of Total	Fiscal Year Rate of Return	
			System	Benchmark
U S Equities	\$ 764.4	37.0%	(13.4)%	(12.5)%
International Equities	261.0	12.7	(6.5)	(6.6)
Private Equity	76.8	3.7	18.1	16.0
Hedge Funds	107.5	5.2	(1.0)	(0.3)
Real Estate	115.4	5.6	5.8	9.2
Fixed Income	521.7	25.3	3.7	6.2
GAA	212.4	10.3	2.6	(3.7)
Cash	3.9	0.2	(0.6)	3.6
<b>Total Fund*</b>	<b>\$2,063.1</b>	<b>100.0%</b>	<b>(4.9)%</b>	<b>(3.8)%</b>

\*The Total Fund shown above in the amount of \$2,063.1 includes short-term investments of \$87.5, accrued interest and dividends receivable of \$4.9, receivables for investment sold of \$71.3 and payables for investments purchased of \$173.9. These items are separately reported from "Total Investments" in the Statement of Plan Net Assets.

## Investment Strategies

During the fiscal year, the Trustees implemented the following changes to the Fund, which are designed to better meet the System's long-term risk and return objectives.

- Hired four large cap growth managers.
- Hired two portable alpha equity managers.
- Committed capital to one new private equity fund.
- Terminated one large cap growth manager.

Doris Ewing  
Partner, New England Pension Consultants

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## Outline of Investment Policies

**Investment Policy.** As provided in Article 5 Title 1 of the Baltimore County Code, the Board of Trustees of the Employees' Retirement System of Baltimore County (the "Board") is empowered to invest the System's assets and to take appropriate action regarding the investment, management and custodianship of plan assets. The investment responsibilities include establishing reasonable investment objectives, developing investment policy guidelines, selecting investment managers and evaluating performance results to assure adherence to guidelines and the achievement of objectives.

The Board has carefully exercised these responsibilities by diversifying the assets into common stocks (domestic and foreign), fixed income, real estate, hedge funds and private equity. The investment policy targets are 37% in U.S. equities, 13% in international equities, 25% in core-plus fixed income investments, 5% in real estate, 5% in hedge funds, 5% in private equity and 10% to global asset allocation strategies. The investment policy authorizes the allocation targets to be maintained within the allocation ranges specified in the Investment Consultant's report.

A pension investment consultant has been appointed to advise and consult with the Board and the System staff, prepare recommendations on investment policies, investment management structure and asset allocation, and to monitor and evaluate the performance of the investment managers and the asset custodian.

The Board authorizes the managers to vote all proxies related to stocks in which they invest pension assets. The Board expects the managers to cast votes solely in the best interest of plan beneficiaries. Managers are required to report annually to the Board on its proxy-voting policies and activities on the System's behalf.

## Investment Results

The following schedule compares rates of return, gross of fees, for the System portfolio with a comparative index, market indices and the inflation rate.

The market indices shown below are the Wilshire 5000 Stock Index, Morgan Stanley Capital International All Country World Ex-U.S. Index, the Lehman Brothers Universal Index, 60% MSCI World/40% WGBI blended index, the NCREIF Index, HFRI Fund of Funds Index and the Venture Capital Economics Private Equity Index.

The Balanced Index is a blend of market indices and is reflective of the total System's portfolio policy for each time period. The Balanced Index was changed in February 2005 to reflect the results of an asset/liability study conducted on behalf of the System's portfolio. Prior to February 2005, the Policy Index was comprised of 50% Wilshire 5000 Stock Index, 15% MSCI All-Country World Ex-U.S. Index, (MSCI ACWXUS), 33.5% Lehman Brothers Aggregate Bond Index and 1.5% Cambridge Venture Capital Index.

From February 2005 through June 30, 2007, the Balanced Index is comprised of 30% S&P 500; 7% Russell 2000 Index; 12% Morgan Stanley EAFE Index; 3% Morgan Stanley Emerging Markets Free Index; 16% Lehman Aggregate Bond Index; 8% Citigroup World Government Bond Index; 5% Lehman High Yield Index; 5% NACREIF Index; 5% Cambridge Venture Capital Index; 5% HFRI Fund of Fund Index. From October 2006 the Cambridge Venture Capital Index was replaced with the Venture Economics Private Equity Index.

For FY 2008, the Balanced Index is comprised of 30% S&P 500; 7% Russell 2000 Index; 10% Morgan Stanley EAFE Index; 3% Morgan Stanley Emerging Markets Free Index; 25% Lehman Universal Bond Index; 3% MSCI World / 2% WGBI and 5% - 90 day T-Bills plus 6%; 5% Lehman High Yield Index; 5% NACREIF Index; 5% Venture Economics Private Equity Index; 5% HFRI Fund of Fund Index.

The rate of return measure for the financial asset class managers is time weighted. This investment measure eliminates the influence of contributions and withdrawals that are beyond the control of the investment managers. This investment measure is an effective means of appraising a fund manager's ability to make assets perform.

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## Investment Return Summary (Percentage Change)

<u>Rates of Return</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>Annualized Rate Over 3 Years</u>	<u>Annualized Rate Over 5 Years</u>
U.S. Common Stock	21.9%	8.5%	9.2%	19.8%	(13.2)%	4.3%	8.5%
Wilshire 5000 Stock Index	21.2	8.2	9.9	20.5	(12.5)	5.0	8.7
International Common Stock	28.2	14.0	25.5	32.5	(5.9)	16.1	18.0
MSCI ACWXUS	32.0	16.5	27.9	29.6	(6.6)	15.7	18.9
GAA	-	-	-	-	3.1	-	-
60% MSCI World / 40% WGBI & 90-day T-Bills plus 6%	-	-	-	15.1	(3.7)	-	-
Fixed Income	1.7	7.6	0.1	6.2	4.0	3.4	3.9
Lehman Brothers Universal*	0.3	6.8	(0.8)	6.6	6.2	4.2	4.2
Real Estate	-	-	-	19.4	6.4	-	-
NCREIF Index**	-	-	-	17.2	9.2	-	-
Hedge Funds	-	-	-	15.9	(0.2)	-	-
Hedge Fund-of-Funds Index	-	-	-	13.6	(0.3)	-	-
Private Equity	14.7	28.5	12.8	20.7	18.1	18.4	18.3
Private Equity Benchmark***	2.9	29.2	15.5	54.4	16.0	20.9	20.6
Total System Portfolio	15.0	9.4	9.2	17.2	(4.5)	7.0	9.0
<b><u>Comparative Index</u></b>							
Balanced Index	14.7	9.2	10.1	17.6	(3.8)	7.5	9.1
<b><u>Inflation Rate</u></b>							
Consumer Price Index	3.2	2.4	4.3	2.7	4.9	3.9	3.5

Note: Performance is gross of fees.

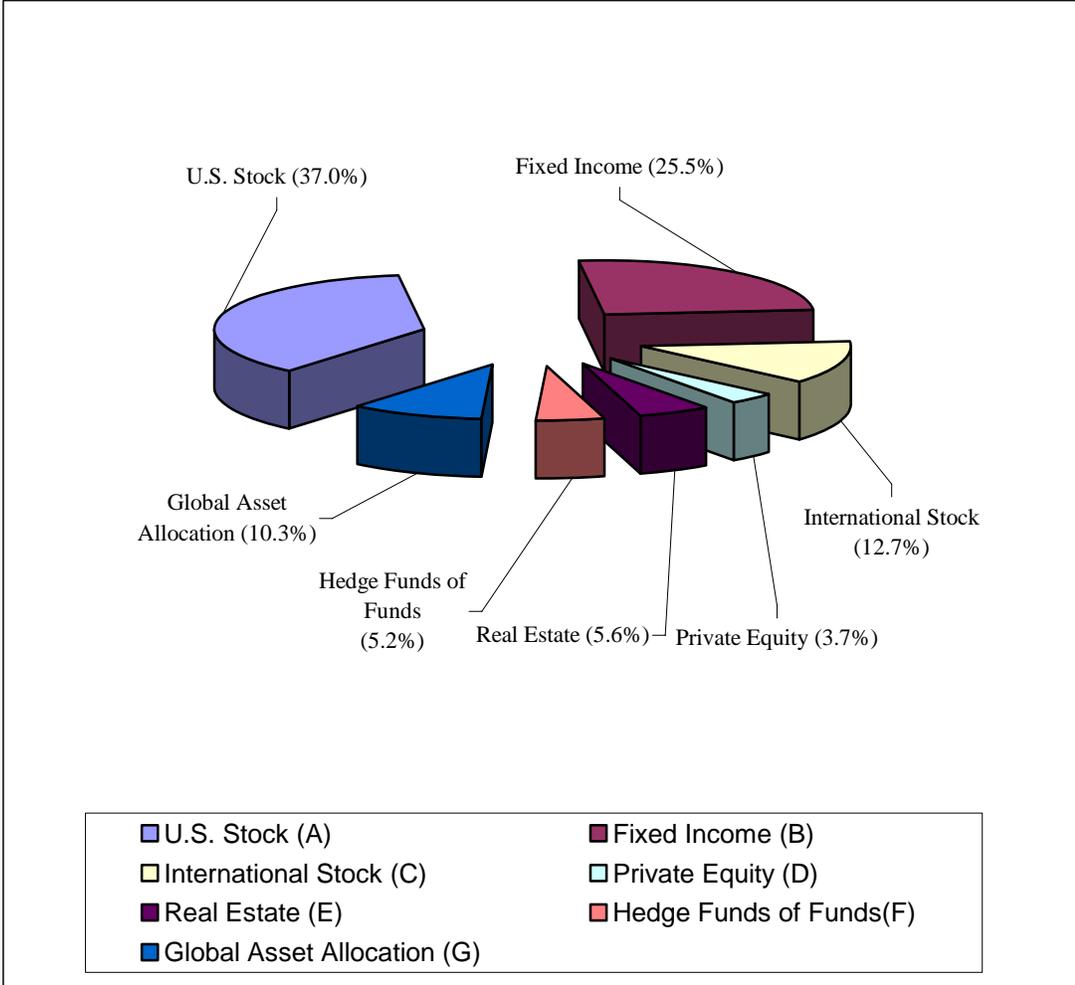
\*The Lehman Brothers Universal Index was used for the FY2007 Fixed Income composite index. Prior to FY2007, the Lehman Brothers Aggregate Index was used as the benchmark.

\*\*The benchmark was changed to the NCREIF Index in February 2005.

\*\*\*The benchmark was the Wilshire 5000 + 5% through April 1, 2004 when it was changed to the Cambridge Venture Capital Index. In October 2006, the benchmark changed to the Venture Economics Private Equity Index.

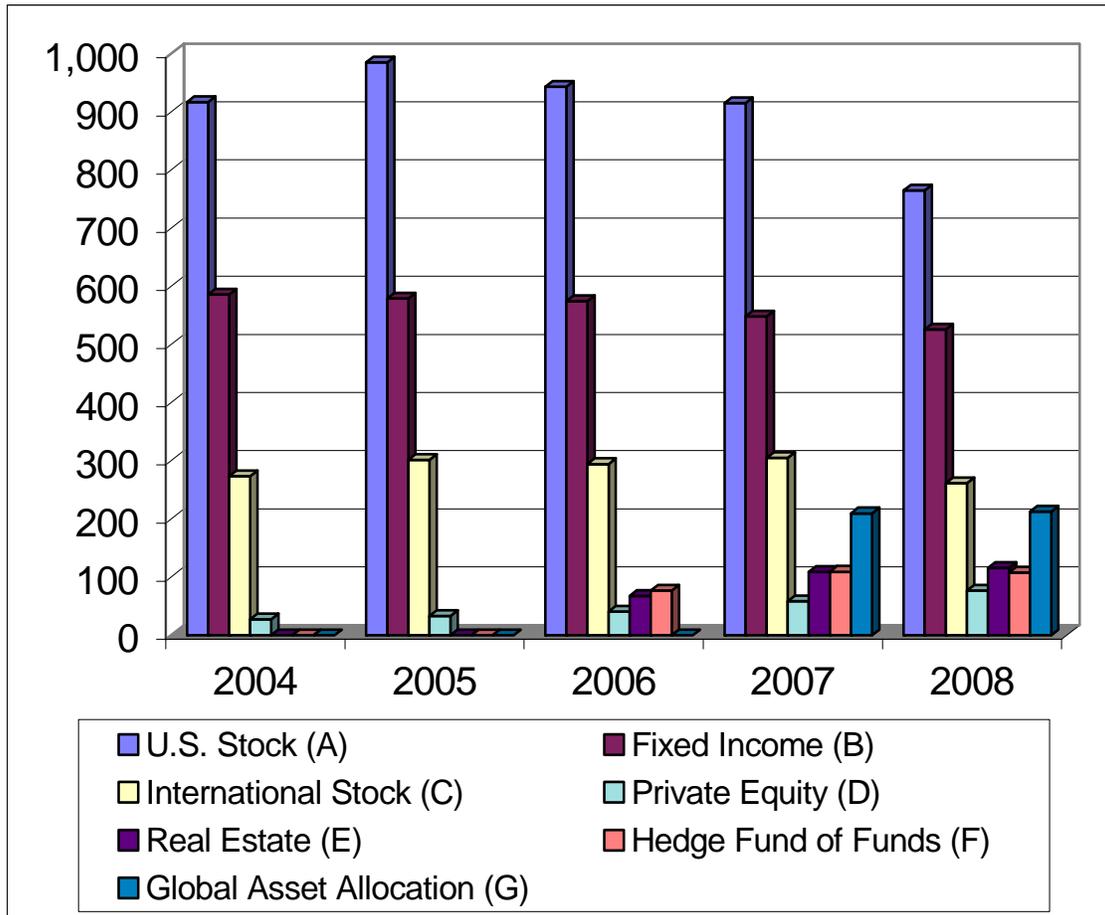
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**Portfolio Composition by Manager Type**  
**Market Value of Investments**  
**Percent of Total Fund**  
**As of June 30, 2008**



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**Portfolio Composition by Manager Type**  
**Market Value of Investments**  
**Percent of Total Fund**  
**As of June 30, 2004, 2005, 2006, 2007 & 2008**  
 (Expressed in Millions)



Investment Type	2004		2005		2006		2007		2008	
U.S. Stock (A)	\$ 916.5	50.9%	\$ 984.9	51.9%	\$ 943.1	47.2%	\$ 914.8	40.7%	\$ 764.4	37.0%
Fixed Income (B)	585.9	32.5%	579.0	30.5%	574.4	28.9%	547.7	24.3%	525.6	25.5%
International Stock (C)	273.1	15.1%	301.2	15.9%	294.2	14.7%	304.9	13.5%	261.0	12.7%
Private Equity (D)	27.3	1.5%	32.8	1.7%	40.3	2.0%	58.5	2.6%	76.8	3.7%
Real Estate (E)	0.0	0.0%	0.0	0.0%	67.4	3.4%	108.8	4.8%	115.4	5.6%
Hedge Fund of Funds (F)	0.0	0.0%	0.0	0.0%	76.6	3.8%	109.0	4.8%	107.5	5.2%
Global Asset Alloc. (G)	0.0	0.0%	0.0	0.0%	0.0	0.0%	209.3	9.3%	212.4	10.3%
<b>Total</b>	<b>\$1,802.8</b>	<b>100.0%</b>	<b>\$1,897.9</b>	<b>100.0%</b>	<b>\$1,996.0</b>	<b>100.0%</b>	<b>\$2,253.0</b>	<b>100.0%</b>	<b>\$2,063.1</b>	<b>100.0%</b>

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## List of Largest Assets Held (June 30, 2008)

<b>Ten Largest Equity Holdings (STOCKS)</b>		PAR VALUE/ SHARES	MARKET VALUE		
1)	Mastercard, Inc	24,300	\$6,452,136		
2)	Kinder Morgan MGMT	115,162	6,201,420		
3)	Canadian Natl. Railway Co.	127,500	6,130,200		
4)	Berkshire Hathaway Inc.	1,300	5,215,600		
5)	Burlington North Santa FE Corp	35,800	3,576,062		
6)	FLIR Sys Inc.	86,900	3,525,533		
7)	Devon Energy Corp	29,000	3,484,640		
8)	Cabot Oil & Gas Corp	51,100	3,461,003		
9)	Microsoft Corp	123,600	3,400,236		
10)	NII Holdings Inc.	68,900	3,272,061		
<b>Ten Largest Fixed Income Holdings (NOTES &amp; BONDS)</b>		INTEREST RATE	MATURITY DATE	PAR VALUE/ SHARES	MARKET VALUE
1)	FNMA SF Mtg.	5.000%	07/01/2038	21,100,000	\$20,222,240
2)	FNMA SF Mtg.	4.500	07/01/2038	21,575,000	19,991,395
3)	FNMA SF Mtg.	5.000	08/01/2038	10,900,000	10,423,670
4)	GNMA SF Mtg.	5.000	08/15/2038	10,500,000	10,146,150
5)	FNMA SF Mtg.	5.500	07/01/2023	8,900,000	8,958,740
6)	GNMA SF Mtg.	5.500	08/15/2038	7,970,000	7,905,443
7)	GNMA SF Mtg.	6.000	08/15/2038	6,265,000	6,339,554
8)	FNMA SF Mtg.	5.000	07/01/2038	5,415,000	5,189,736
9)	FHLMC Pool	5.500	01/01/2038	5,158,468	5,113,009
10)	FNMA SF Mtg.	5.500	07/01/2038	4,390,000	4,326,784

\*A complete list of the portfolio holdings is available upon request.

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## Supplementary Supporting Schedules Schedule of Fees

(Year Ended June 30, 2008)

<b>Investment Services</b>	<b>Assets Under Management</b>	<b>Fees</b>
<i>Equity Managers:</i>		
Alex. Brown Investment Mgmt.	\$ 93,669,828	\$ 726,739
Atlanta Life Investment Advisor	21,839,184	7,280
Barclays International Fund	44,066,554	64,666
Barclays US Equity	397,274,662	71,545
Benchmark Plus Management	25,785,278	90,385
Brown Capital Management	28,642,896	494,455
Cadence Capital Management	43,928,593	442,722
CIBC Asset Management	78,099,094	538,173
Earnest Partners	62,853,069	393,788
Gottex Fund Management	25,675,833	134,174
John HSU Capital Group	21,298,172	11,040
LSV Asset Management	77,829,355	526,266
Lynmar Capital Group	21,449,283	11,314
Mondrian Investment	61,058,822	550,912
Profit Investment Mgmt.	21,549,846	8,979
Legg Mason	0	448,930
Mellon Transition Mgmt	398,504	0
Total Equity Managers	1,025,418,973	4,521,368
<i>Fixed Income Managers:</i>		
Earnest Partners	84,419,077	189,872
Pacific Investment Management Co.	143,321,065	1,251,357
Reams Asset Management	145,493,451	228,517
Western Asset Management	148,482,026	361,215
Total Fixed Income Managers	521,715,619	2,030,961
<i>Private Equity Managers:</i>		
Edison Venture Fund	6,170,425	17,826
Grotech Capital Group	343,624	16,379
HarbourVest Venture Partners, Inc.	54,247,711	842,357
Mesirow Financial	2,528,213	172,974
Newstone Capital	5,462,029	83,063
Paul Capital	788,597	57,195
Siguler Guff	7,238,992	69,061
Total Private Equity Managers	76,779,591	1,258,855
<i>Real Estate Managers:</i>		
Transwestern Investment Co.	7,541,709	91,738
ING Clarion	38,479,552	363,027
JP Morgan	33,109,502	566,472
UBS Global	36,223,574	513,408
Total Real Estate Managers	115,354,337	1,534,645
<i>Hedge Fund of Funds Managers:</i>		
EIM Management	56,603,166	653,756
Federal Street	50,946,437	522,303
Total Hedge Fund Managers	107,549,603	1,176,059
<i>Global Asset Allocation Managers:</i>		
Bridgewater	119,175,668	454,539
Mellon Capital Management	93,192,298	787,782
Total Global Asset Allocation Managers	212,367,966	1,242,321
<i>Short-Term Investment Manager:</i>		
Mellon Cash Manager	3,925,215	108,916
<i>Other Investment Service Fees:</i>		
Custodian		289,516
Security lending		8,552,173
Investment consultant		190,851
Total Investment Service Fees		9,032,540
Total*	\$2,063,111,304	\$20,905,665

\*The Total "Asset Under Management" shown above in the amount of \$2,063,111,304 includes short-term investments of \$87,511,506, accrued interest and dividends receivable of \$4,914,551, receivables for investment sold of \$71,318,882 and payables for investments purchased of \$173,977,077. These items are separately reported from "Total Investments" in the Statement of Plan Net Assets.

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## Supplementary Supporting Schedules Schedule of Commissions (Year Ended June 30, 2008)

<u>Investment Broker Firms</u>	<u>Number of Shares Traded</u>	<u>Total Commissions</u>	<u>Commission Per Share</u>
BNY Convergenx	10,297,933	\$ 210,146	0.02
Investment Technology Groups	2,720,852	54,356	0.02
Bernstein Sanford C & Co.	526,530	20,265	0.04
ITG Inc.	1,002,555	20,051	0.02
Credit Suisse	1,614,385	18,638	0.01
Raymond James & Assoc. Inc.	436,968	17,074	0.04
Merrill Lynch Pierce Fenner Smith Inc.	473,866	16,146	0.03
Goldman Sachs & Co.	401,580	15,986	0.04
SIS Segaintersettle AG, Zurich	146,400	14,300	0.10
Bear Stearns Sec Corp.	352,123	14,210	0.04
Citigroup Global Markets Inc.	366,600	13,934	0.04
CAP INSTL SVCS Inc.	348,752	13,303	0.04
Lehman Bros Inc.	727,464	12,952	0.02
Jefferies & Co Inc.	391,819	12,898	0.03
Sanford C. Bernstein & Co Inc.	509,428	11,448	0.02
Instinet Corp.	574,330	11,031	0.02
Liquidnet Inc.	488,428	10,373	0.02
UBS Securities LLC	560,040	10,326	0.02
Miscellaneous (Under \$10,000)	<u>9,348,130</u>	<u>241,171</u>	0.03
<b>Total</b>	<b><u>31,288,183</u></b>	<b><u>\$738,608</u></b>	

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## Investment Summary

(June 30, 2008)

TYPE OF INVESTMENTS	FAIR VALUE	% of FAIR VALUE
Fixed Income:		
U.S. Government & Agencies Securities	\$ 191,985,868	9.3%
Corporate Bonds	180,728,804	8.7
Foreign Bonds	16,809,083	0.8
Bond Mutual Funds	160,715,460	7.7
Total Fixed Income	550,239,215	26.5
Common Stock:		
Basic Industries	19,092,700	0.9
Consumer Durable Goods	7,753,217	0.4
Consumer Non-Durables	24,996,814	1.2
Consumer Services	36,663,012	1.8
Energy	44,946,909	2.2
Financial Services	65,233,197	3.1
Health Care	45,744,830	2.2
MEDIA	11,695,658	0.6
Technology	65,534,485	3.2
Transportation	17,716,605	0.8
Utilities	3,736,373	0.2
General Business	115,592,860	5.6
Total Common Stock	458,706,660	22.2
Other Investments:		
Stock Mutual Funds	553,860,943	26.7
Real Estate Equity Funds	115,354,208	5.6
Hedge Funds	106,034,860	5.1
Private Equity Funds	76,779,590	3.7
Global Asset Allocation Funds	212,367,966	10.2
Total Other Investments	1,064,397,567	51.3
Total Investments at fair value	\$2,073,343,442	100.0%

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