Evaluation Associates EXECUTIVE SUMMARY





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OHIO RETIREMENT STUDY COUNCIL

Comparative Performance Study Periods ending 06/30/2008

Introduction

Evaluation Associates is pleased to present to the Council the most recent semi-annual performance report of the five Ohio Statewide pension funds pursuant to Section 171.04 of the Revised Code. This is the nineteenth report we have prepared pursuant to this Code. The purpose of this performance report is to provide the framework for dialogue with the retirement systems and to assist the Council in meeting its oversight responsibilities. As is our practice, this report reflects investment performance for all five retirement systems over the ten-year period beginning July 1, 1998 and ending June 30, 2008.

An important value of this type of report is its ability to provide appropriate comparisons of the systems' investment results. Such a comparison is possible, since all of the systems are subject to the same investment standards and restrictions and have been so from their inception. In light of the fact that rate of return calculations are sensitive to time period differences, it is critical that any comparative study be done with a consistent time frame, as was done in this report.

As is common practice when examining pension fund results we make reference, throughout the report, to such things as quartile rankings and universe comparisons. The universes used for comparative purposes in the body of the report are those of the Mellon Trust Universe Service. The comparisons are formulated by pooling data from a wide range of plan sponsors and they provide a statistically valid measure of results relative to a large group sample.

While the entire measurement period for this report, as mentioned above, is ten years, certain exhibits contained within the report reference shorter time periods. When a shorter period is used for comparison purposes, it is because that particular exhibit refers to a standard comparative reference period such as the past three or five years.

In order to put performance in the proper context, it is important to understand the historical evolution of the investment restrictions imposed on the funds by statute. Prior to 1993 and the passage of S.B. 43, the investment authority of the funds was severely limited. Only 35% of each fund's assets could be invested in common stock and individual stock purchases were limited to domestic securities specified by a legal list. S.B. 43 expanded the legal list to include American Depository Receipts (ADRs), commingled stock investment funds, derivative instruments and real estate investment trusts (REITs). More importantly, the act permitted the funds to invest up to 50% of their total assets in U.S. stock and 10% in foreign stocks, bonds, and other obligations.

In March 1997, S.B. 82 abolished the legal list and adopted the "prudent person rule." The funds' investment authority under this act is expanded to allow any individual investment, so long as the overall portfolio is diversified. This allows for responses to changes in the economy and investment markets and reliance on professional investment managers and economic advisors to guide the decision-making process. Along with this expansion of investment authority, however, comes the requirement of prudence and

diligence in the development of guidelines, benchmarks, and objectives, and importantly, mandates ongoing monitoring by those with fiduciary responsibility.

The majority of U.S. public pension plans are managed with "prudent person" guidelines, which is to say largely without minimums or maximums placed on individual asset classes or securities. This approach, currently in place in the Ohio systems, is the optimal way to manage fund assets. It gives each fund the ability to develop an asset allocation strategy that is likely to maximize expected return relative to an explicit tolerance for risk, all relative to the need to fund future benefit obligations. Such an approach is fully consistent with the primary mandate of any pension fund – management that is in the best interest of plan participants.

Each of the Ohio systems has established separate investment policies and investment programs for their plans. The Ohio State Teachers Retirement System (STRS) manages approximately 80% of total assets internally, Ohio Public Employees Retirement System (PERS) manages approximately 60% of total assets internally, while the OP&F, SERS, and HPRS investment programs employ external investment managers for 100% of their assets.

As of January 1, 2005, PERS implemented a new structure for their assets. Approximately \$11 Billion was segregated into a new fund with a separate asset allocation policy, different from the policy for the rest of the fund which now exists solely for the purpose of funding the defined benefit pension obligations (Despite the segregation of assets, retiree health care benefits remain discretionary under PERS law). The policy target (asset allocation) for the remaining pension assets was also modified, reflecting the different risk and reward characteristics of the newly segregated fund. Our report reflects these changes by separating the two PERS asset pools whenever appropriate.

Our key findings for the periods ending June 30, 2008 are summarized as follows:

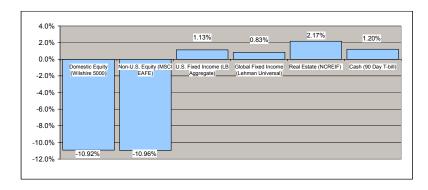
- A variety of negative issues continued to unfold in the U.S. economy over the first half of 2008 making it a very difficult market for investors. Sustained weakness in the housing market, contraction in the manufacturing sector, rising unemployment and renewed inflation concerns from rising energy and food prices, coupled with the fallout of the subprime lending crisis contributed to market volatility. The past two quarters produced mixed investment results for the major asset classes. Domestic and international equity (developed and emerging) markets experienced double digit losses in the first half of 2008. Fixed income markets posted positive returns despite rising interest rates across the yield curve in the second quarter of 2008. Real estate also posted positive results in the first half of 2008.
- As a result of the poor capital market environment, all of the systems posted negative returns in the first half of 2008. Returns
 for the six-month period ranged from -4.69% (PERS HC) to -7.28% (STRS).
- For the six-month period, the PERS (HC) policy index return was the top performer (-3.60%), primarily due to a higher fixed income allocation and lower equity allocation than the other plans. The HPRS policy index had the lowest return for the six-month period (-8.37%), primarily due to its relatively low allocation to fixed income which outperformed other asset classes over this period.
- With respect to performance relative to policy benchmarks for the six-month period, four of the systems essentially met or outperformed their policy benchmarks, and one underperformed its policy benchmark. HPRS outperformed its policy index by

- the largest amount (160 basis points), while STRS slightly underperformed by 7 basis points, and PERS (HC) underperformed its benchmark by 109 basis points.
- In comparison to a broad universe of other public retirement systems (the Mellon All Public Total Fund Universe), all five DB plans ranked below the median plan for the six-month period ending June 30, 2008. More specifically, OP&F ranked 52nd, SERS ranked 76th, HPRS ranked 79th, PERS (DB) ranked 83rd, and STRS ranked 89th.
- For the one-year period ending June 30, 2008, STRS, OP&F, and HPRS outperformed their policy benchmark, while PERS and SERS underperformed their benchmarks. Relative to their peer groups, only OP&F outperformed the median of the Mellon All Public Total Fund Universe. More specifically, OP&F ranked 40th, SERS ranked 69th, PERS (DB) ranked 70th, STRS ranked 71st, and HPRS ranked in the 83rd percentile.
- On a three-year basis, all plans posted strong returns and all plans, except PERS (HC), outperformed their respective policy benchmarks. Over this three-year time period, STRS and OP&F outperformed their benchmarks by 98 basis points, SERS outperformed by 83 basis points, HPRS outperformed by 75 basis points, and PERS (DB) outperformed by 45 basis points.
 PERS (HC) underperformed its benchmark by 37 basis points.
- Comparing the three-year returns of the systems to the Mellon All Public Total Fund Universe, STRS ranked in the 33rd percentile, followed by OP&F (34th), SERS (40th), PERS DB (54th), and HPRS (61st).
- For the five-year period, all systems outperformed their actuarial interest rates and respective policy benchmarks. STRS produced the best results and outperformed its policy benchmark by 103 basis points. In comparison to the Mellon All Public Total Fund Universe, STRS (+11.40%) and OP&F (+11.20%), SERS (+10.49%) and PERS DB (+10.35%) ranked in the second quartile, and HPRS (+9.57%) ranked in the third quartile of the peer group.
- Over the ten-year period, all systems underperformed their respective actuarial interest rates. Relative to their respective policy benchmarks, SERS, STRS, and OP&F outperformed their policy benchmarks, HPRS essentially met its policy benchmark, and PERS (DB) underperformed its benchmark. For the ten-year period, performance results versus the Mellon All Public Total Fund Universes are mixed. STRS ranked in the 50th percentile, OP&F (52nd), SERS (72nd), PERS DB (74th), and HPRS (99th).
- Please note that comparing investment performance relative to the plans' actuarial interest rate and policy benchmark are of
 primary importance, while peer group comparisons, although useful, should be of secondary importance in the performance
 evaluation process. In addition, since the plans have long-term funding schedules and investment time horizons, more
 emphasis should be placed on evaluating performance over longer holding periods.

- Appendix 2.1 and 2.2 at the end of this report compares the current and target asset allocation of each of the systems to two
 public fund universes, the total universe of public funds and the universe of public funds in excess of \$1 billion. The following
 observations are based on a review of the systems' asset allocation compared to those peer universes:
 - 1. The actual and target asset allocation of PERS (DB), STRS, OP&F, and HPRS to domestic equity are higher than the median plan's allocation to domestic equity (36.71%) in the Mellon All Public Total Fund Universe. The actual (26.52%) and target (29.00%) allocation of SERS to domestic equity is below that of the median plan. The same holds true when the systems are compared to the median (34.81%) of the Mellon Billion Dollar Public Total Fund Universe.
 - 2. There are notable differences in the target allocations of the systems to international equity. The median plan allocation of the Mellon All Public Total Fund Universe as of June 30, 2008 was 18.57% (and 20.16% of the Mellon Billion Dollar Public Total Fund Universe). The target allocations of STRS and SERS are higher than the median at 25% and 29%, respectively. The target allocations of PERS (DB) and OP&F approximate the median at 20% and the HPRS target allocation is lower than the median at 15%.
 - 3. The systems' actual and target asset allocation to fixed income are lower than the median plan (27.18%) of the Mellon All Public Total Fund Universe. In particular, HPRS has the lowest target asset allocation to fixed income (15.00%). The same holds true when the systems are compared to the median (26.68%) of the Mellon Billion Dollar Public Total Fund Universe.
 - 4. The Mellon All Public Total Fund Universe median allocation to real estate was 5.76% as of June 30, 2008. All plans except HPRS (1.48% actual and 5.00% target) have actual and target allocations significantly above the median plan allocation to real estate.
 - 5. While all system plans have actual and target allocations dedicated to alternative investments, HPRS has the largest actual (18.54%) and target (15.00%) allocation, well above that of the Mellon All Public Total Fund Universe peer median at 5.80% (and 8.39% of the Mellon Billion Dollar Public Total Fund Universe). The other plans have lower target and actual allocations to alternative investments.
- We believe these reports have provided the ORSC with a consolidated source of information to assist in its oversight of the five Ohio Statewide public pension funds. These reports have provided important high level information to enable the ORSC to evaluate the performance of the plans, and to better understand the impact of the plans' investment policy, and the effectiveness of the implementation of those policies, on total investment performance. In other words, have the investment policies, and the implementation of those policies, met the objectives of the plans? The ORSC now has 10 years of performance data under the prudent person guidelines. In order to further assist in the oversight duties of the ORSC, we will evaluate the performance of the plans in a more comprehensive and thorough manner in future reports.

Market Environment

The past two quarters produced mixed investment results for the six major asset classes. The best return was achieved by real estate (+2.17%) followed by cash (+1.20%), U.S. fixed income (+1.13%), global fixed income (+0.83%), U.S. domestic equity (-10.92%) and non-U.S. equity (-10.96%).



Median Fund Returns

The median fund in the Mellon public fund database returned -5.87% for the two quarters ending June 30, 2008. A hypothetical fund with a 60% allocation to the Wilshire 5000 and a 40% allocation to the Lehman Brothers Aggregate Bond Index would have returned -6.09% for the two quarters ending June 30, 2008, underperforming relative to the median fund return in the Mellon public fund database.

Universe Medians Performance Summary Periods Ending June 30, 2008

	Two Quarters	One Year	Three Years	Five Years	<u>Ten Years</u>
Fund Sponsor Type					
Public Fund Universe	-5.87%	-4.41%	8.23%	10.34%	6.52%
Corporate DB Universe	-6.40%	-5.00%	7.04%	9.43%	5.94%
Endowment Universe	-5.21%	-2.64%	9.98%	11.68%	6.85%
Taft-Hartley Universe	-6.20%	-5.59%	5.62%	8.04%	5.64%
All Fund Universe	-6.04%	-4.41%	7.23%	9.61%	6.18%
60% Wilshire 5000 / 40% LB Aggregate	-6.09%	-4.86%	4.80%	6.91%	4.79%

Asset Allocation

Comparison of Policy Asset Allocation:

A well-diversified asset allocation is the key investment decision that retirement fund Boards make based on risk tolerance, the pension liability structure and the funding costs of each fund. Asset allocation policy varies across funds for this reason.

• Total Fund Return vs. Policy Benchmark: Investment returns and the variation or volatility of returns are primarily determined by the policy asset allocation.

Long-Term Return:

The primary objective of investment performance for each fund is to meet or exceed the actuarial interest rate and the respective policy benchmarks over a long-term time period.

Peer Rankings:

In comparing rankings of fund performance in peer universes, asset allocation differences need to be considered.

Comparison of Policy Asset Allocation

	US Equity	Intl Equity	Fixed Income	Private / Public Real Estate	Alternative Investment	Cash
PERS (DB)	43.00%	20.00%	24.00%	8.00%	5.00%	0.00%
PERS (HC)	30.00%	15.00%	50.00%	5.00%	0.00%	0.00%
STRS	42.00%	25.00%	20.00%	9.50%	3.50%	0.00%
OP&F	46.00%	20.00%	23.00%	8.00%	3.00%	0.00%
SERS	29.00%	29.00%	24.00%	10.00%	7.00%	1.00%
HPRS	50.00%	15.00%	15.00%	5.00%	15.00%	0.00%

Note: PERS instituted separate policy target allocations for their defined benefit and health care plans in January 2005. An allocation of 50.0% to total fixed income in the Health Care Plan consists of 15.0% (fixed income), 15.0% short duration and 20.0% (TIPS). The Defined Benefit Plan real estate allocation is comprised of 6.4% private real estate and 1.0% REITS.

As seen in the table above, the asset allocation targets for the various systems are fairly similar. All plans are equity-oriented, with exposure to this asset class ranging from 67.0% (STRS) to 45.0% (PERS HC). Another difference in the policy target allocations between the plans is evident with HPRS, which has a target allocation of 15.0% to fixed income and 15% to alternative investments.

Evaluating Funds

- The most appropriate benchmark for evaluating the performance of each of the Ohio funds is the blended index contained in their respective investment policy statements. The investment policy statement contains information about the investment objectives and investment constraints that are specific to each fund based upon such factors as the funds' liquidity needs and the age of the workforce they employ.
- There are two investment objectives: (1) a return that meets the actuarial rate of return assumption, and (2) the amount of risk
 the fund is willing and able to tolerate. These objectives are constrained by time horizon, liquidity needs, and government
 regulations.
- The investment policy statement guides the funds' asset allocation decisions. Asset allocation is very important because some studies show that, on average, over 90% of the variance in returns is explained by this decision alone. Therefore, Ohio fund returns should be compared against returns from organizations with similar asset allocations.
- Performance of each of the Ohio funds should first be measured against each fund's own policy benchmark return (the return of the specified target policy mix), and secondarily, against the peer group.
- A comparison of the returns of the Ohio funds against one another is a valid exercise. It must be done, however, while keeping in mind any differences in the individual funds' policy allocations and the level of risk tolerance implied by those allocations.

Executive Summary

Total Fund Returns

The table below displays total fund results for all of the systems, comparing each fund's return to its own benchmark return. The tables that follow repeat the same comparison on an individual asset class basis.

	Total Fund Return vs. Policy Benchmark					
<u>Fund</u>	Two Quarters	One Year	Three Years	Five Years		
DEDC (DD)						
PERS (DB)		/				
Actual		-5.33%	7.97%	10.35%		
Policy	-7.12%	-5.24%	7.52%	9.96%		
Difference	0.20%	-0.09%	0.45%	0.39%		
PERS (HC)						
Actual	-4.69%	-2.74%	7.06%	N/A		
Policy	-3.60%	-0.79%	7.43%	N/A		
Difference	-1.09%	-1.95%	-0.37%	N/A		
STRS						
Actual	-7.28%	-5.44%	9.09%	11.40%		
Policy	-7.21%	-5.79%	8.11%	10.37%		
Difference	-0.07%	0.35%	0.98%	1.03%		
OP&F						
Actual	-5.91%	-4.18%	8.96%	11.20%		
Policy	-7.09%	-5.44%	7.98%	10.55%		
Difference	1.18%	1.26%	0.98%	0.65%		
SERS						
Actual	-6.60%	-5.25%	8.54%	10.49%		
Policy	-6.83%	-4.60%	7.71%	9.86%		
Difference	0.23%	-0.65%	0.83%	0.63%		
HPRS						
Actual	-6.77%	-6.00%	7.15%	9.57%		
Policy	-8.37%	-7.81%	6.40%	9.18%		
Difference	1.60%	1.81%	0.75%	0.39%		

All returns are for periods ending 6/30/2008. Returns for periods longer than one year are annualized.

PERS (DB): The return for the total fund for the two quarters ending June 30, 2008 outperformed its policy index by 0.20% and underperformed its policy index by 0.09% for one-year period. Over the trailing three- and five-year periods, the total fund outperformed its policy index by 45 and 39 basis points, respectively.

PERS (HC): The total fund underperformed its policy index by 1.09% for the two quarters ending June 30, 2008 and by 1.95% for the past year. Over the trailing three-year period, the total fund underperformed its policy index by 37 basis points.

STRS: The return for the total fund for the two quarters ending June 30, 2008 underperformed its policy index by 0.07%, but outperformed by 0.35% for the one-year period. Over the trailing three- and five-year periods, the total fund outperformed its policy index by 98 and 103 basis points, respectively.

OP&F outperformed its policy index by 1.18% for the two quarters ending June 30, 2008 and outpaced the policy by 1.26% for the trailing one-year period. The total fund outperformed its policy index over the trailing three- and five-year periods by 98 and 65 basis points, respectively.

SERS: The total fund outperformed its policy index by 0.23% for the two quarters ending June 30, 2008 and underperformed by 0.65% for the past 12 months. The fund outperformed its policy index over the trailing three- and five-year periods by 83 and 63 basis points, respectively.

HPRS: The total fund outperformed its policy index for the two quarters ending June 30, 2008 by 1.60% and by 1.81% for the year. For the longer term trailing three- and five-year periods, the total fund outperformed its policy index by 75 and 39 basis points, respectively.

Domestic Equity Returns

1	Domestic Equity	Return vs. Po	licy Benchmark	
<u>Fund</u>	Two Quarters	One Year	Three Years	Five Years
PERS (DB)				
Actual	-10.95%	-12.57%	4.66%	8.38%
Policy	-11.05%	-12.69%	4.77%	8.40%
Difference	0.10%	0.12%	-0.11%	-0.02%
PERS (HC)				
Actual	-10.95%	-12.57%	4.66%	0.00%
Policy	-11.05%	-12.69%	4.77%	N/A
Difference	0.10%	0.12%	-0.11%	N/A
STRS				
Actual	-13.01%	-15.60%	4.07%	7.88%
Policy	-11.05%	-12.69%	4.72%	8.36%
Difference	-1.96%	-2.91%	-0.65%	-0.48%
OP&F				
Actual	-10.05%	-12.42%	5.05%	9.04%
Policy	-10.92%	-12.53%	5.01%	8.73%
Difference	0.87%	0.11%	0.04%	0.31%
SERS				
Actual	-12.27%	-15.10%	3.76%	7.77%
Policy	-11.05%	-12.69%	4.73%	8.38%
Difference	-1.22%	-2.41%	-0.97%	-0.61%
HPRS				
Actual	-11.00%	-14.54%	4.58%	9.70%
Policy	-10.65%	-13.46%	4.63%	8.92%
Difference	-0.35%	-1.08%	-0.05%	0.78%

All returns are for periods ending 6/30/2008. Returns for periods longer than one year are annualized.

Domestic equity returns were negative for the two quarters ending June 30, 2008. On an absolute and relative basis, OP&F (-10.05%) generated the best returns. On an absolute basis for the year, OP&F had the best result with a -12.42% return and outpaced the policy index by 11 basis points; PERS DB and HC also outperformed the policy index by 12 basis points over one year. Over the three-year period, OP&F generated the best absolute return, and for the five-year period HPRS outperformed the other plans.

Fixed Income Returns

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All returns are for periods ending 6/30/2008. Returns for periods longer than one year are annualized.

Three of the six fixed income returns were negative for the two quarters ending June 30, 2008. OP&F was the strongest performer (+1.63%) while PERS DB was the weakest performer (-1.06%). On an absolute and relative basis, STRS had the best return for the year (+6.82%). Over the trailing three and five-year periods, OP&F led all plans on an absolute and relative basis.

International Equity Returns

In	International Equity Return vs. Policy Benchmark				
<u>Fund</u>	Two Quarters	One Year	Three Years	Five Years	
PERS (DB)					
Actual	-9.96%	-6.99%	16.16%	19.42%	
1 10 10.0					
Policy		-6.64%	15.72%	18.97%	
Difference	0.20%	-0.35%	0.44%	0.45%	
PERS (HC)					
Actual	-9.93%	-6.87%	16.18%	N/A	
Policy	-10.16%	-6.64%	15.72%	N/A	
Difference	0.23%	-0.23%	0.46%	N/A	
STRS					
Actual	-11.02%	-9.11%	15.38%	19.37%	
Policy	-12.04%	-10.01%	14.64%	18.26%	
Difference	1.02%	0.90%	0.74%	1.11%	
OP&F					
Actual	-10.72%	-5.38%	17.08%	19.72%	
Policy	-10.16%	-6.63%	15.68%	18.94%	
Difference	-0.56%	1.25%	1.40%	0.78%	
SERS					
Actual	-10.68%	-9.77%	16.47%	19.19%	
Policy	-11.80%	-10.22%	14.12%	17.30%	
Difference		0.45%	2.35%	1.89%	
HPRS					
Actual	-8.81%	-4.00%	15.45%	17.07%	
Policy	-9.85%	-6.22%	15.33%	18.21%	
Difference		2.22%	0.12%	-1.14%	

All returns are for periods ending 6/30/2008. Returns for periods longer than one year are annualized.

All of the funds experienced negative returns in international equity for the two quarters ending June 30, 2008. On an absolute and relative basis, HPRS had the best return for the period (-8.81%) and was also the strongest performing fund for the year (-4.00%). OP&F outperformed all other plans for the trailing three- and five-year periods.

Real Estate Returns

	Real Estate Return vs. Policy Benchmark					
<u>Fund</u>	Two Quarters	One Year	Three Years	Five Years		
PERS (DB)						
Actual	2.96%	9.26%	N/A	N/A		
Policy		-15.42%	N/A	N/A		
Difference	6.37%	24.68%	N/A	N/A		
PERS (DB) "Publ						
Actual	-3.40%	-15.38%	4.99%	N/A		
Policy		-15.42%	4.80%	N/A		
Difference		0.04%	0.19%	N/A		
PERS (HC) "Publ	lic Markets Only'					
Actual	-3.40%	-15.37%	5.00%	N/A		
Policy	-3.41%	-15.42%	4.80%	N/A		
Difference	0.01%	0.05%	0.20%	N/A		
STRS						
Actual	2.65%	18.93%	24.23%	22.38%		
Policy	1.34%	5.50%	13.51%	14.39%		
Difference	1.31%	13.43%	10.72%	7.99%		
OP&F						
Actual	5.65%	12.85%	20.11%	19.88%		
Policy	2.17%	9.20%	14.96%	14.72%		
Difference	3.48%	3.65%	5.15%	5.16%		
SERS						
Actual	0.62%	8.32%	14.31%	15.65%		
Policy	3.15%	7.81%	14.51%	15.16%		
Difference	-2.53%	0.51%	-0.20%	0.49%		
HPRS						
Actual	-2.13%	8.21%	11.19%	8.98%		
Policy	2.17%	9.20%	14.96%	14.72%		
Difference	-4.30%	-0.99%	-3.77%	-5.74%		

All returns are for periods ending 6/30/2008. Returns for periods longer than one year are annualized.

For the real estate returns for the two quarters ending June 30, 2008, OP&F had the best absolute and relative return (+5.65%). STRS outperformed all other plans for the one-, three- and five-year periods. The policy returns for each of the funds varies greatly from quarter to quarter. This is due to the index selected and the method of reporting. The REIT portfolios for the PERS DB and PERS HC plans declined 3.4% for the two quarters ending June 30, 2008 and declined 15.4% for the year.

Alternative Asset Returns

	Alternative Asset Return vs. Policy Benchmark				
<u>Fund</u>	Two Quarters	One Year	Three Years	Five Years	
PERS (DB)					
Actual	0.39%	14.27%	20.95%	23.99%	
Policy	-11.21%	-3.12%	9.33%	15.46%	
Difference	11.60%	17.39%	11.62%	8.53%	
PERS (HC)					
Actual	N/A	N/A	N/A	N/A	
Policy	N/A	N/A	N/A	N/A	
Difference	N/A	N/A	N/A	N/A	
STRS					
Actual	3.08%	9.34%	17.72%	18.82%	
Policy	-9.55%	-9.69%	7.73%	11.38%	
Difference	12.63%	19.03%	9.99%	7.45%	
OP&F					
Actual	5.95%	21.31%	22.62%	17.03%	
Policy	-11.09%	-2.88%	10.37%	16.88%	
Difference	17.04%	24.19%	12.25%	0.15%	
SERS					
Actual	7.83%	18.95%	21.55%	15.99%	
Policy	-11.99%	-2.08%	8.87%	14.35%	
Difference	19.82%	21.03%	12.68%	1.64%	
HPRS					
Actual	2.10%	5.83%	N/A	N/A	
Policy	-2.40%	-0.22%	N/A	N/A	
Difference	4.50%	6.05%	N/A	N/A	

All returns are for periods ending 6/30/2008. Returns for periods longer than one year are annualized.

For the two quarters ending June 30, 2008, SERS had the best absolute return (+7.83%) followed by OP&F (+5.95%). For the one-year period, OP&F had the highest return (+21.31%). For the trailing three-year period, OP&F led the way; over the five-year period, PERS exceeds all other plans. There is also a variation in the policies for alternative investments. As an example, STRS adds 3% annually to the Russell 3000 index to benchmark its alternative investment returns, while OP&F adds 3% annually to the Wilshire 5000 index.

Long-Term Results vs. Targets

Long-Term Return - 10 Years

	Actual Return	Policy Return	Actuarial Interest Rate	Valuation Date
PERS (DB)	6.09%	6.30%	8.00%	12/31/2006
PERS (HC)	N/A	N/A	6.70%	12/31/2006
STRS	6.52%	6.19%	8.00%	7/1/2007
OP&F	6.47%	6.32%	8.25%	1/1/2007
SERS	6.16%	5.80%	8.00%	7/1/2007
HPRS	4.80%	4.82%	8.00%	12/31/2006

^{*} Note: Actuarial interest rate assumption for PERS Health Care Plan has been projected for 50 years.

The table above provides a long-term look at how the systems are performing compared to their policy returns and also compared to their actuarial interest rate. On a relative basis, STRS, OP&F and SERS exceeded their respective policy index over the ten-year period ended June 30, 2008, while HPRS and PERS DB underperformed their policy benchmarks. All plans underperformed relative to their actuarial interest rate assumption.

Universe Comparisons

Public Fund Universe Peer Rankings

	Two Quarters	One Year	Three Years	Five Years
PERS (DB)	83	70	54	50
STRS	89	71	33	30
OP&F	52	40	34	32
SERS	76	69	40	41
HPRS	79	87	62	65

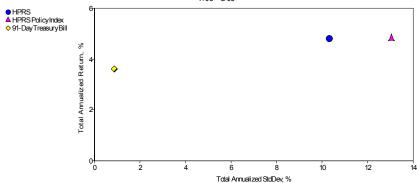
For the two quarters ending June 30, 2008, all plans ranked below the median in the Mellon All Public Plan Universe. OP&F (52nd percentile) was the best performer and STRS was the weakest performer (89th percentile). For the past five years, all plans except HPRS, either matched the median or ranked in the second quartile.

Highway Patrol Retirement System

	HPRS	Returns		
Portfolio	Two Quarters	One Year	Three Years	Five Years
US Equity				
Actual	-11.00%	-14.54%	4.58%	9.70%
Benchmark	-10.65%	-13.46%	4.63%	8.92%
Difference	-0.35%	-1.08%	-0.05%	0.78%
Fixed Income				
Actual	0.99%	5.45%	4.70%	4.78%
Benchmark	1.12%	7.11%	4.07%	3.85%
Difference	-0.13%	-1.66%	0.63%	0.93%
Intl. Equity				
Actual	-8.81%	-4.00%	15.45%	17.07%
Benchmark	-9.85%	-6.22%	15.33%	18.21%
Difference	1.04%	2.22%	0.12%	-1.14%
Real Estate				
Actual	-2.13%	8.21%	11.19%	8.98%
Benchmark	2.17%	9.20%	14.96%	14.72%
Difference	-4.30%	-0.99%	-3.77%	-5.74%
Alternative Investments				
Actual	2.10%	5.83%	N/A	N/A
Benchmark	-2.40%	-0.22%	N/A	N/A
Difference	4.50%	6.05%	N/A	N/A

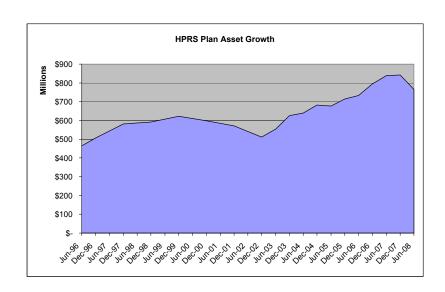


7/98 - 6/08



Created with MPI StylusTM

Created with MPI Stylus				
	Annualized Return, %	Annualized StdDev, %	MPT Statistics	
	Total	Total	Alpha, %	Sharpe Ratio
HPRS	4.80	10.30	1.65	0.16
HPRS Policy Index	4.82	13.06	1.98	0.15
91-DayTreasuryBill	3.63	0.89	0.00	NA



Asset Mix

Actual

	June 30, 2008	Target	Difference
US Equity	45.9%	50.0%	-4.1%
Intl. Equity	16.4%	15.0%	1.4%
Alternative Assets	18.5%	15.0%	3.5%
Total Equity	80.9%	80.0%	0.9%
Fixed Income	16.9%	15.0%	1.9%
Real Estate	1.5%	5.0%	-3.5%
Short Term Investments	0.7%	0.0%	0.7%
Total Debt	19.1%	20.0%	-0.9%
	100.0%	100.0%	0.0%

Characteristic Data

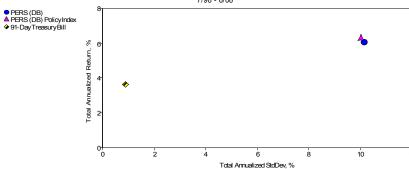
Assets at 6/30/2008 Actuarial Interest Rate: Investment Staff Size: \$ 764,793,744 8.00%

Public Employees Retirement System **Defined Benefit Plan**

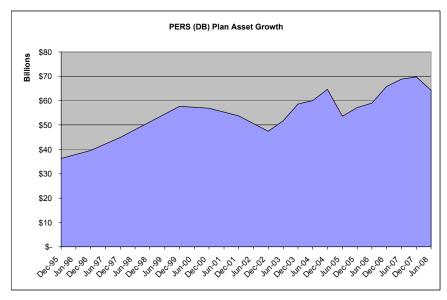
PERS Returns				
Portfolio	Two Quarters	One Year	Three Years	Five Years
US Equity				
Actual	-10.95%	-12.57%	4.66%	8.38%
Benchmark	-11.05%	-12.69%	4.77%	8.40%
Difference	0.10%	0.12%	-0.11%	-0.02%
Fixed Income				
Actual	-1.06%	2.81%	3.46%	3.96%
Benchmark	0.83%	6.22%	4.14%	4.15%
Difference	-1.89%	-3.41%	-0.68%	-0.19%
Intl. Equity				
Actual	-9.96%	-6.99%	16.16%	19.42%
Benchmark	-10.16%	-6.64%	15.72%	18.97%
Difference	0.20%	-0.35%	0.44%	0.45%
Real Estate				
Actual	2.96%	9.26%	N/A	N/A
Benchmark	-3.41%	-15.42%	N/A	N/A
Difference	6.37%	24.68%	N/A	N/A
REITS				
Actual	-3.40%	-15.38%	4.99%	N/A
Benchmark	-3.41%	-15.42%	N/A	N/A
Difference	0.01%	0.04%	N/A	N/A
Private Equity				
Actual	0.39%	14.27%	20.95%	23.99%
Benchmark	-11.21%	-3.12%	9.33%	15.46%
Difference	11.60%	17.39%	11.62%	8.53%

Performance vs. Risk

7/98 - 6/08



Created with MPI Stylus™				
	Annualized Return, %	Annualized StdDev, %		PT istics
	Total	Total	Alpha, %	Sharpe Ratio
PERS (DB)	6.09	10.16	287	0.28
PERS (DB) Policy Index	6.30	10.06	3.07	0.30
91-DayTreasuryBill	3.63	0.89	0.00	NA



Note: Defined Benefit and Health Care plan assets were segregated on January 1, 2005. Asset Mix

Total Debt

	Actual		
	June 30, 2008	Target	Difference
US Equity	42.4%	44.9%	-2.5%
Intl. Equity	19.3%	20.0%	-0.7%
Opp. Equity	0.3%	0.1%	0.2%
REITS	1.0%	1.0%	0.0%
Alternative Inv	3.8%	3.2%	0.6%
Total Equity	66.8%	69.2%	-2.4%
Fixed Income	24.3%	24.0%	0.3%
Real Estate	7.7%	6.7%	1.0%
Short Term Investments	1.2%	0.0%	1.2%

30.7%

99.9%

2.5%

0.1%

8.00%

Note: An allocation of 24.34% to total fixed income consists of 14.54% (fixed income), 0.07% (stable value) and 9.73% (long duration).

33.2%

Characteristic Data

Assets at 6/30/2008 \$ 64,203,657,100 Actuarial Interest Rate: Investment Staff Size:

Public Employees Retirement System

Health Care Plan

PERS Returns					
Portfolio	Two Quarters	One Year	Three Years	Five Years	
US Equity					
Actual	-10.95%	-12.57%	4.66%	N/A	
Benchmark	-11.05%	-12.69%	4.77%	N/A	
Difference	0.10%	0.12%	-0.11%	N/A	
Fixed Income					
Actual	-1.03%	2.71%	3.43%	N/A	
Benchmark	0.83%	6.22%	4.14%	N/A	
Difference	-1.86%	-3.51%	-0.71%	N/A	
Intl. Equity					
Actual	-9.93%	-6.87%	16.18%	N/A	
Benchmark	-10.16%	-6.64%	15.72%	N/A	
Difference	0.23%	-0.23%	0.46%	N/A	
REITS					
Actual	-3.40%	-15.37%	5.00%	N/A	
Benchmark	-3.41%	-15.42%	4.80%	N/A	
Difference	0.01%	0.05%	0.20%	N/A	
TIPS					
Actual	5.02%	15.42%	N/A	N/A	
Benchmark	9.73%	11.58%	N/A	N/A	
Difference	-4.71%	3.84%	N/A	N/A	
Short Duration					
Actual	-3.12%	-1.85%	N/A	N/A	
Benchmark	4.86%	7.07%	N/A	N/A	
Difference	-7.98%	-8.92%	N/A	N/A	



PERS (HC) TOTAL
A PERS (HC) Policy Index
91-Day Treasury Bill

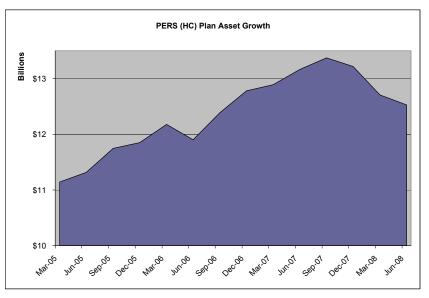
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1/05 - 6/08

A

Total Annualized StdDex %

Created with MPI Stylus™				
	Annualized Return, %	Annualized StdDev, %		PT istics
	Total	Total	Alpha, %	Sharpe Ratio
PERS(HC) TOTAL	6.35	5.17	236	0.48
PERS (HC) Policy Index	6.63	4.70	2.60	0.59
91-DayTreasuryBill	4.03	0.62	0.00	NA



Note: Defined Benefit and Health Care plan assets were segregated on January 1, 2005. Asset Mix

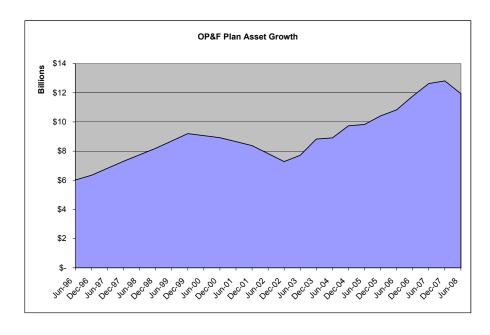
Actual June 30, 2008 Target Difference 24.5% 3.3% US Equity Intl. Equity 24.5% -1.9% 22.6% Private Equity 5.0% -5.0% 54.0% 10.0% Fixed Income 9.7% -0.3% REITS 5.6% 6.0% -0.4% TIPS 21.0% 20.0% 1.0% Short Duration Bonds 12.3% 10.0% 2.3% HC Cash 0.0% 1.0% Total Debt 3.6% 46.0% 100.0% 0.0%

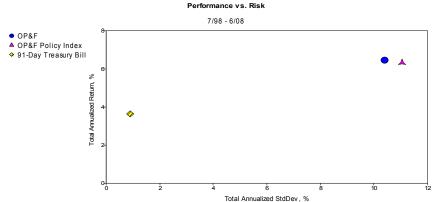
Characteristic Data

Assets at 6/30/2008 \$ 12,529,718,908 Actuarial Interest Rate: 6.70% Investment Staff Size: 56

Police & Fire Pension Fund

•	OP&F	Returns		
Portfolio	Two Quarters	One Year	Three Years	Five Years
US Equity				
Actual	-10.05%	-12.42%	5.05%	9.04%
Benchmark	-10.92%	-12.53%	5.01%	8.73%
Difference	0.87%	0.11%	0.04%	0.31%
Fixed Income				
Actual	1.63%	6.38%	5.27%	5.41%
Benchmark	1.13%	7.13%	4.08%	3.86%
Difference	0.50%	-0.75%	1.19%	1.55%
Intl. Equity				
Actual	-10.72%	-5.38%	17.08%	19.72%
Benchmark	-10.16%	-6.63%	15.68%	18.94%
Difference	-0.56%	1.25%	1.40%	0.78%
Real Estate				
Actual	5.65%	12.85%	20.11%	19.88%
Benchmark	2.17%	9.20%	14.96%	14.72%
Difference	3.48%	3.65%	5.15%	5.16%
Alternative Investments				
Actual	5.95%	21.31%	22.62%	17.03%
Benchmark	-11.09%	-2.88%	10.37%	16.88%
Difference	17.04%	24.19%	12.25%	0.15%





Created with MPI Stylus™				
	Annualized Return, %	Annualized StdDev, %	M Stati	PT istics
	Total	Total	Alpha, %	Sharpe Ratio
OP&F	6.47	10.40	3.26	0.31
OP&F PolicyIndex	6.32	11.06	3.19	0.28
91-DayTreasuryBill	3.63	0.89	0.00	NA

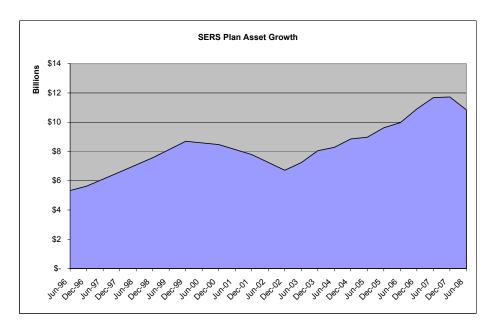
Asset Mix Actual June 30, 2008 Target Difference **US** Equity 46.0% -3.1% Intl. Equity 20.4% 20.0% 0.4% Alternative Assets 3.1% 3.0% 0.1% Total Equity 66.4% 69.0% -2.6% Fixed Income 23.0% 1.3% 24.3% Real Estate 8.0% 0.6% 8.6% Short Term Investments 0.6% 0.0% 0.6% Total Debt 33.6% 31.0% 2.6% 100.0% 0.0%

Assets at 6/30/2008 \$ 11,936,569,973
Actuarial Interest Rate: 8.25%
Investment Staff Size: 14

Characteristic Data

School Employees Retirement System

	SERS Returns					
Portfolio	Two Quarters	One Year	Three Years	Five Years		
US Equity						
Actual	-12.27%	-15.10%	3.76%	7.77%		
Benchmark	-11.05%	-12.69%	4.73%	8.38%		
Difference	-1.22%	-2.41%	-0.97%	-0.61%		
Fixed Income						
Actual	-0.96%	3.20%	3.36%	3.65%		
Benchmark	1.13%	7.12%	4.08%	3.85%		
Difference	-2.09%	-3.92%	-0.72%	-0.20%		
ntl. Equity						
Actual	-10.68%	-9.77%	16.47%	19.19%		
Benchmark	-11.80%	-10.22%	14.12%	17.30%		
Difference	1.12%	0.45%	2.35%	1.89%		
Real Estate						
Actual	0.62%	8.32%	14.31%	15.65%		
Benchmark	3.15%	7.81%	14.51%	15.16%		
Difference	-2.53%	0.51%	-0.20%	0.49%		
Private Equity						
Actual	7.83%	18.95%	21.55%	15.99%		
Benchmark	-11.99%	-2.08%	8.87%	14.35%		
Difference	19.82%	21.03%	12.68%	1.64%		



Performance vs. Risk

Created with MPI Stylus™				
	Annualized Return, %	Annualized StdDev, %		PT stics
	Total	Total	Alpha, %	Sharpe Ratio
SERS	6.16	11.03	3.03	0.27
SERS PolicyIndex	5.80	10.61	2.64	0.25
91-DayTreasuryBill	3.63	0.89	0.00	NA

Asset Mix Actual Target 29.0% June 30, 2008 Difference **US** Equity -2.5% Intl. Equity 30.2% 29.0% 1.2% Alternative Assets 5.9% 7.0% -1.1% Total Equity 62.6% 65.0% -2.4% Fixed Income 24.5% 24.0% 0.5% Real Estate 11.8% 1.8% 10.0% Short Term Investments 1.1% 1.0% 0.1% Total Debt 37.4% 35.0% 2.4%

100.0%

Characteristic Data

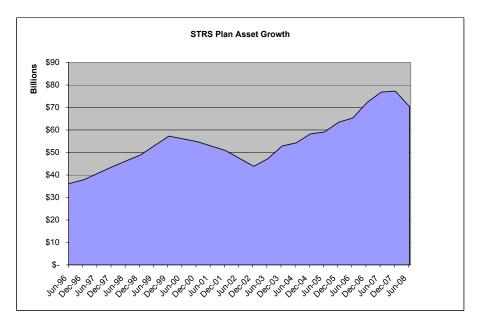
100.0%

0.0%

Assets at	6/30/2008	\$ 10,847,949,404
Actuarial I	nterest Rate:	8.009
Investmen	t Staff Size:	1

State Teachers Retirement System

STRS Returns							
Portfolio	Two Quarters	One Year	Three Years	Five Years			
US Equity							
Actual	-13.01%	-15.60%	4.07%	7.88%			
Benchmark	-11.05%	-12.69%	4.72%	8.36%			
Difference	-1.96%	-2.91%	-0.65%	-0.48%			
Fixed Income							
Actual	1.18%	6.82%	4.61%	4.55%			
Benchmark	0.84%	6.23%	4.14%	4.15%			
Difference	0.34%	0.59%	0.47%	0.40%			
Intl. Equity							
Actual	-11.02%	-9.11%	15.38%	19.37%			
Benchmark	-12.04%	-10.01%	14.64%	18.26%			
Difference	1.02%	0.90%	0.74%	1.11%			
Real Estate							
Actual	2.65%	18.93%	24.23%	22.38%			
Benchmark	1.34%	5.50%	13.51%	14.39%			
Difference	1.31%	13.43%	10.72%	7.99%			
Private Equity							
A . 1 1	3.08%	9.34%	17.72%	18.82%			
Actual		0.000/	7.73%	11.38%			
Benchmark	-9.55%	-9.69%	1.1370	11.3070			



Created with MPI Stylus TM								
	Annualized Return, %	Annualized StdDev, %	MPT Statistics					
	Total	Total	Alpha, %	Sharpe Ratio				
STRS	6.52	11.50	3.42	0.29				
STRS Policy Index	6.19	11.24	3.08	0.27				
91-DayTreasuryBill	3.63	0.89	0.00	NA				

Total Annualized StdDev, %

Asset Mix							
Actual							
	June 30, 2008	Target	Difference				
US Equity	41.2%	42.0%	-0.8%				
Intl. Equity	25.1%	25.0%	0.1%				
Alternative Assets	5.1%	3.5%	1.6%				
Total Equity	71.5%	70.5%	1.0%				
Fixed Income	17.1%	20.0%	-2.9%				
Real Estate	10.0%	9.5%	0.5%				
Short Term Investments	1.5%	0.0%	1.5%				
Total Debt	28.5%	29.5%	-1.0%				
	100.0%	100.0%	0.0%				

Assets at	6/30/2008	\$	70,382,395,829
Actuarial Interest Rate:			8.00%
Investment	Staff Size:		112

Characteristic Data

Ohio Retirement Study Council

Performance Summary Table Periods Ending 6/30/08

<u> </u>						
	2 Qtrs	1 Yr	3 Yrs	5 Yrs	10 Yrs	Incept Date
HPRS						'
Total Return	-6.77	-6.00	7.15	9.57	4.80	12/31/93
Domestic Equity	-11.00	-14.54	4.58	9.70	1.94	12/31/93
Fixed Income	0.99	5.45	4.70	4.78	6.36	12/31/93
Cash & Equiv	1.80	5.60	5.25	3.95	4.05	3/31/94
Real Estate	-2.13	8.21	11.19	8.98	8.89	12/31/93
International Equity	-8.81	-4.00	15.45	17.07	7.19	3/31/95
Alternatives	2.10	5.83	NA	NA	NA	12/31/06
PERS (Defined Benefit Plan)						
Total Return	-6.92	-5.33	7.97	10.35	6.09	12/31/93
Domestic Equity	-10.95	-12.57	4.66	8.38	3.28	12/31/93
Fixed Income	-1.06	2.81	3.46	3.96	5.75	12/31/93
Long Duration Fixed Income	-1.40	6.03	NA	NA	NA	12/31/06
Cash & Equiv	1.16	3.89	4.56	3.43	3.78	12/31/93
Real Estate	2.96	9.26	NA	NA	NA	3/31/05
Public Real Estate	-3.40	-15.38	4.99	NA	NA	3/31/06
International Equity	-9.96	-6.99	16.16	19.42	8.23	9/30/96
Alternatives	0.39	14.27	20.95	23.99	15.02	12/31/95
PERS (Health Care Plan)						
Total Return	-4.69	-2.74	7.06	NA	NA	12/31/04
Domestic Equity	-10.95	-12.57	4.66	NA	NA	12/31/04
Fixed Income	-1.03	2.71	3.43	NA	NA	12/31/04
Cash & Equiv	1.15	3.93	4.63	NA	NA	12/31/04
Public Real Estate	-3.40	-15.37	5.00	NA	NA	12/31/04
International Equity	-9.93	-6.87	16.18	NA	NA	12/31/04
TIPS	5.02	15.42	5.74	NA	NA	2/28/05
Short Duration	-3.12	-1.85	1.96	NA	NA	2/28/05
OP&F						
Total Return	-5.91	-4.18	8.96	11.20	6.47	3/31/88
Domestic Equity	-10.05	-12.42	5.05	9.04	4.16	12/31/91
Fixed Income	1.63	6.38	5.27	5.41	6.73	3/31/88
Cash & Equiv	1.18	3.62	4.26	3.18	3.67	12/31/91
Real Estate	5.65	12.85	20.11	19.88	14.92	9/30/93
International Equity	-10.72	-5.38	17.08	19.72	7.61	9/30/94
Alternatives	5.95	21.31	22.62	17.03	9.23	12/31/88

t						
	2 Qtrs	1 Yr	3 Yrs	5 Yrs	10 Yrs	Incept Date
SERS						
Total Return	-6.60	-5.25	8.54	10.49	6.16	12/31/93
Domestic Equity	-12.27	-15.10	3.76	7.77	3.21	12/31/93
Fixed Income	-0.96	3.20	3.36	3.65	5.79	12/31/93
Cash & Equiv	1.75	4.39	4.76	3.51	4.10	12/31/93
Real Estate	0.62	8.32	14.31	15.65	11.60	12/31/93
International Equity	-10.68	-9.77	16.47	19.19	7.48	12/31/94
Alternatives	7.83	18.95	21.55	15.99	10.04	12/31/93
STRS						
Total Return	-7.28	-5.44	9.09	11.40	6.52	12/31/93
Domestic Equity	-13.01	-15.60	4.07	7.88	2.91	12/31/93
Fixed Income	1.18	6.82	4.61	4.55	6.29	12/31/93
Cash & Equiv	1.42	3.97	4.49	3.34	3.78	12/31/93
Real Estate	2.65	18.93	24.23	22.38	15.64	12/31/93
International Equity	-11.02	-9.11	15.38	19.37	8.93	12/31/93
Alternatives	3.08	9.34	17.72	18.82	7.77	12/31/93
76.7.16.1766	0.00	0.0 .	=			12/01/00
Indices						
Russell 1000	-11.21	-12.38	4.80	8.22	3.37	
Russell 2000	-9.38	-16.19	3.79	10.29	5.52	
Russell 2500	-8.11	-14.28	4.93	11.48	7.51	
Russell 3000	-11.05	-12.68	4.73	8.38	3.51	
Standard & Poors 500	-11.91	-13.12	4.41	7.58	2.88	
S&P 500 Equal Wtd	-10.86	-16.88	4.05	9.92	6.52	
S&P 600 Small Cap	-7.09	-14.67	4.10	11.60	7.59	
S&P 400 Mid Cap	-3.90	-7.33	7.45	12.61	9.84	
DJ Wilshire 5000	-10.92	-12.53	5.02	8.73	3.62	
MSCI EAFE (Net)	-10.96	-10.61	12.84	16.67	5.83	
MSCI Em Mkts Free (Gross)	-11.64	4.89	27.52	30.15	15.51	
MSCI World ex-U.S. (Net)	-9.76	-8.81	13.72	17.32	6.33	
Citigroup Broad Inv Grade	1.40	7.76	4.28	4.02	5.76	
LB Aggregate	1.13	7.12	4.09	3.85	5.68	
LB Mortgage	1.93	7.83	4.82	4.56	5.76	
LB 1-3 Yr US Gov't	2.11	7.07	4.70	3.32	4.74	
LB Long-Term Gov't/Credit	-0.71	6.78	2.23	3.98	6.28	
LB US TIPS	4.88	15.09	5.59	5.98	7.79	
NCREIF Property	2.17	9.20	14.96	14.72	12.23	
Wilshire Resi Full Cap	-3.41	-15.43	4.82	14.87	11.00	

The Summary Tables display each of the System's total fund and individual asset class returns as well as the returns for selected broad market indices over the measurement period.

Ohio Retirement Study Council

INDEX DEFINITIONS

Russell 1000 – Made up of the 1000 largest companies within the Russell 3000 index. It is also known as the Market-Oriented Index because it represents the group of stocks from which most active money managers choose.

Russell 2000 – A small-cap index consisting of the smallest 2000 companies in the Russell 3000 index, representing approximately 8% of the Russell 3000 total market capitalization.

Russell 2500 – A small-cap index consisting of the smallest 2500 companies in the Russell 3000 index, representing approximately 20% of the Russell 3000 total market capitalization.

Russell 3000 – An index composed of 3000 large U.S. companies, as determined by market capitalization. This portfolio of securities represents approximately 98% of the investable U.S. equity market.

S&P 500 – The Standard & Poors 500 is a commonly used benchmark of the U.S. equities market. This market capitalization-weighted index includes 500 leading companies in leading industries of the U.S. economy.

S&P 500 Equal Weighted – An index of the same stocks as those in the S&P 500, but with equal dollar investments in each issue.

S&P 600 Small Cap – An index designed to measure the performance of the small capitalization sector of the U.S. equities market. This index consists of 600 domestic stocks chosen for market size, liquidity, (bid-asked spread, ownership, share turnover and number of no trade days) and industry group representation.

S&P MidCap 400 – An index designed to measure the performance of the middle capitalization sector of the U.S. equities market. This market capitalization weighted index was created in June of 1991 and consists of 400 domestic stocks from the NYSE, NASDAQ and AMEX chosen for market size, liquidity and industry group representation. Each stock added to the index must represent a viable enterprise and must be representative of the industry group to which it is assigned. The market price of each security in the index must be responsive to changes in industry affairs. Aggregate market value of the stock and its trading activity are important considerations in the selection process.

DJ Wilshire 5000 – Measures the performance of all U.S. common equity securities, and so serves as an index of all stock trades in the United States.

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MSCI EAFE – The index is listed for foreign stock funds (EAFE refers to Europe, Australasia, and Far East). Widely accepted as a benchmark for international stock performance, the EAFE index is an aggregate of 21 individual country indexes that collectively represent many of the major markets of the world.

MSCI Emerging Markets – A capitalization-weighted index of stocks from 25 emerging markets that only includes issues that may be traded by foreign investors. Consists of equities from emerging markets in Argentina, Brazil, Chile, China, Colombia, Czech Republic, Egypt, Hungary, India, Indonesia, Israel, Jordan, Korea, Malaysia, Mexico, Morocco, Pakistan, Peru, Philippines, Poland, Russia, South Africa, Taiwan, Turkey and Thailand.

MSCI World Ex-US – An index that measures the performance of the developed stock markets of the following developed countries: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hong Kong, Ireland, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland and the United Kingdom.

Citigroup Broad Investment Grade – An index that spans the "available" market for U.S. Treasury/agency securities, investment grade corporate bonds (BBB or better) and mortgage pass-through securities.

LB Aggregate – An index that includes fixed rate debt issues rated investment grade or higher by Moody's Investor's Service, Standard and Poor's Corporation, or Fitch Investor's Service, in that order. (It also includes Commercial Mortgage Backed Securities.) Bonds or securities included must be fixed rate, although they can carry a coupon that steps up or changes according to a predetermined schedule; must be dollar-denominated and nonconvertible; and must be publicly issued. All issues have at least one year to maturity with intermediate indices including bonds

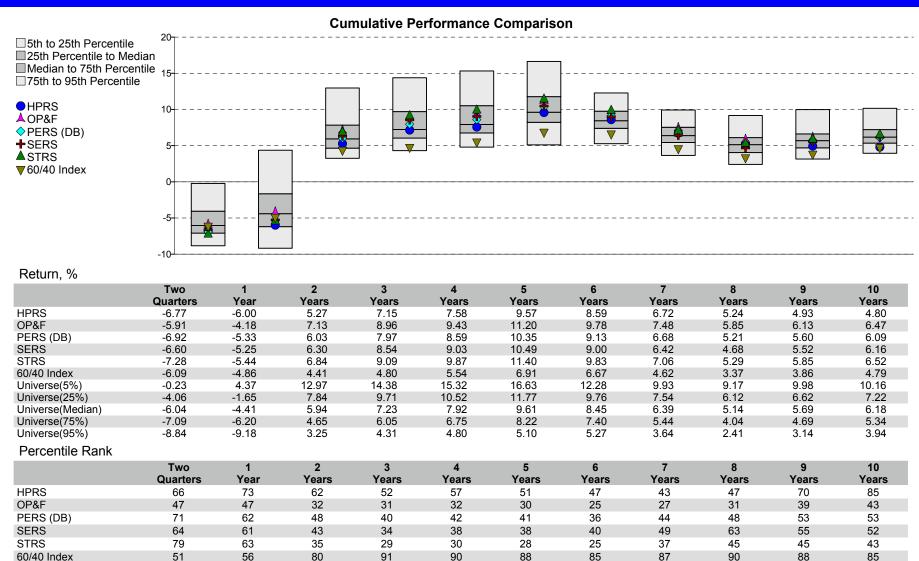
LB Mortgage-Backed – An index that includes 15 and 30 year fixed rate securities backed by mortgage pools of the Government National Mortgage Association (GNMA), Federal Home Loan Mortgage Corporation (FHLMC), and Federal National Mortgage Association (FNMA).

LB 1-3 Yr US Government – An index that includes securities issued by the U.S. Government (i.e., Treasury and Agency Securities) with a maturity from one year up to but not including three years.

LB US Tips – An index that consists of Inflation-Protection securities issued by the U.S. Treasury.

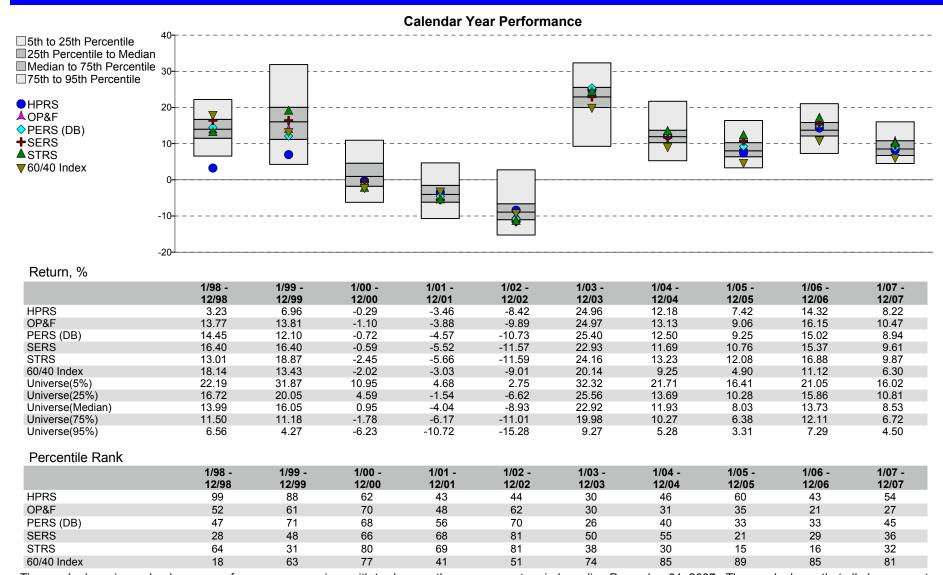
NCREIF Property – An index that is also known as the NPI or Combined Index. It consists of both equity and leveraged properties, but the leveraged properties are reported on an unleveraged basis. So, the index is completely unleveraged. The universe of properties includes: Existing properties only – no development projects; only investment-grade, non-agricultural, income-producing properties: apartment, industrial, office and retail; the database increases quarterly as participants execute transactions and as new members join NCREIF and submit data; sold properties are removed from the index in the quarter the sale takes place but the historical information remains in the database; each property's market value is determined by real estate appraisal methodology, consistently applied.

Total Plans vs. Mellon All Total Fund Universe Performance and Rank Data as of 06/30/08



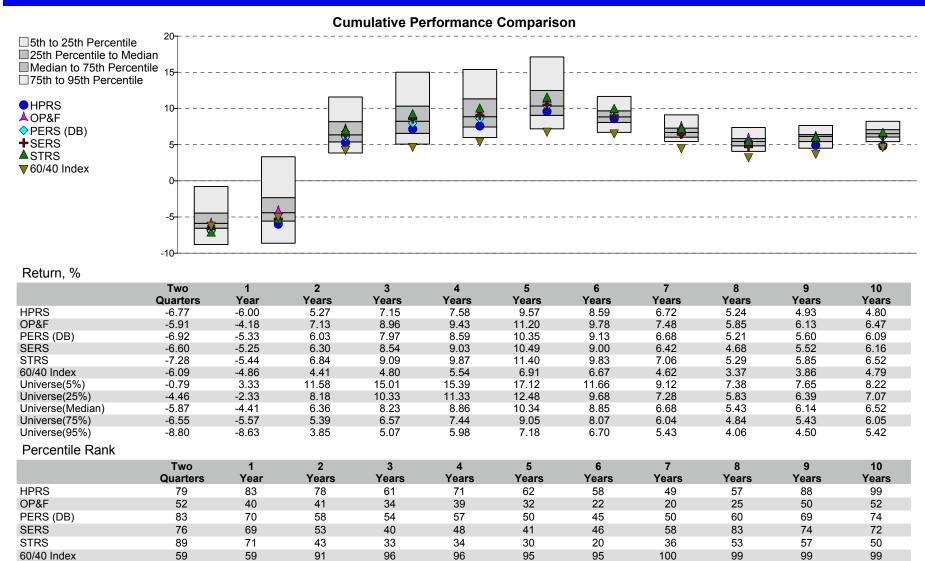
This page compares the Total Fund results to a broad universe of total funds – 464 other funds, including those of public, corporate, and multi-employer pension plans and totaling \$1.7 Trillion in assets – over a ten-year measurement period. Here and elsewhere in the report, the "floating bars" define the universe against which the performance is being compared. The table just below the graph displays each fund's return for that period and the table below that defines each fund's relevant ranking in the universe. The numbers in the "rank" rows are percentile rankings. The 60/40 Index is the composition of a hypothetical portfolio of 60% stocks (DJ Wilshire 5000 Index) and 40% bonds (Lehman Aggregate Bond Index). The graph above is a cumulative performance comparison with measurement periods that are annualized over the last ten years. The graph shows that STRS has demonstrated the highest return for the ten-year period with an 6.52% annualized return, which ranks the fund in the 43rd percentile followed by OP&F (43rd percentile), SERS (52nd percentile), PERS DB (53rd percentile) and HPRS (85th percentile).

Total Plans vs. Mellon All Total Fund Universe Performance and Rank Data as of 06/30/08



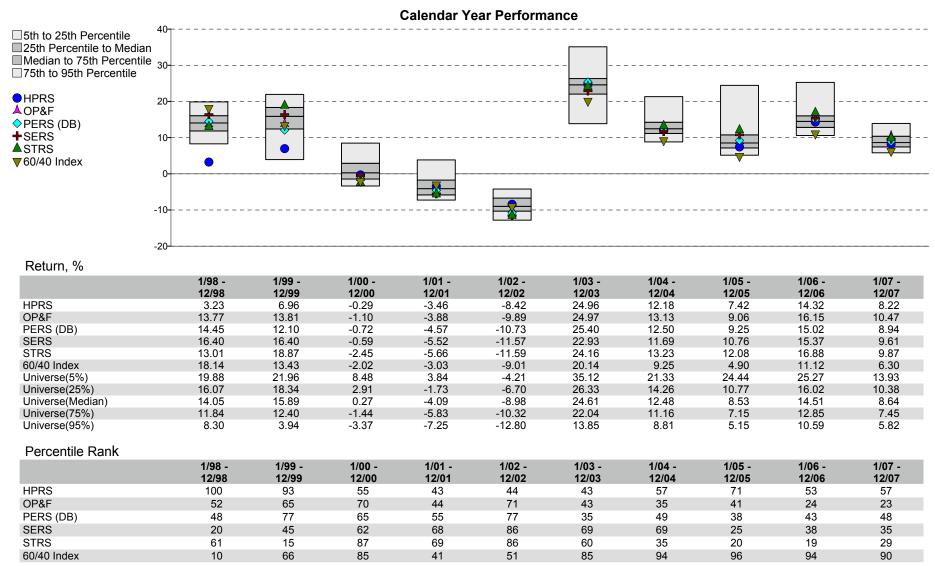
The graph above is a calendar year performance comparison with twelve-month measurement periods ending December 31, 2007. The graph shows that all plans except HPRS exceeded the median during 2007. OP&F ranked in the 27th percentile, STRS ranked in the 32nd percentile, SERS placed in the 36th percentile, PERS placed in the 45th percentile, and HPRS ranked in the 54th percentile.

Total Plans vs. Mellon All Public Total Fund Universe Performance and Rank Data as of 06/30/08



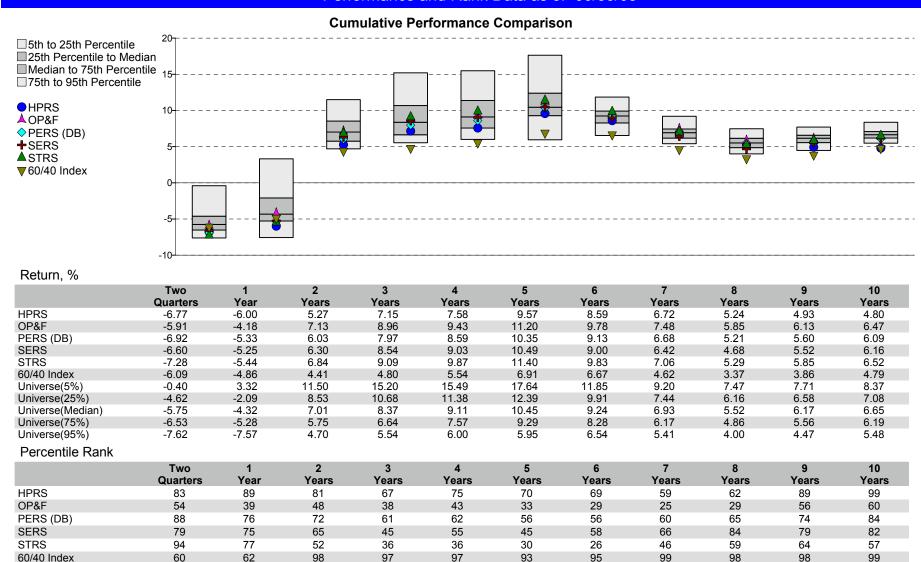
The graph above is a cumulative performance comparison with measurement periods that are annualized over the last ten years. The graph above compares the Total Fund results to a universe of all Public Retirement Systems in the Mellon All Public Total Fund Universe. STRS matched the median return, OP&F ranked in the 52nd percentile, SERS ranked in the 72nd percentile, PERS ranked in the 74th percentile and HPRS ranked at the bottom of the universe for the ten-year period.

Total Plans vs. Mellon All Public Total Fund Universe Performance and Rank Data as of 06/30/08



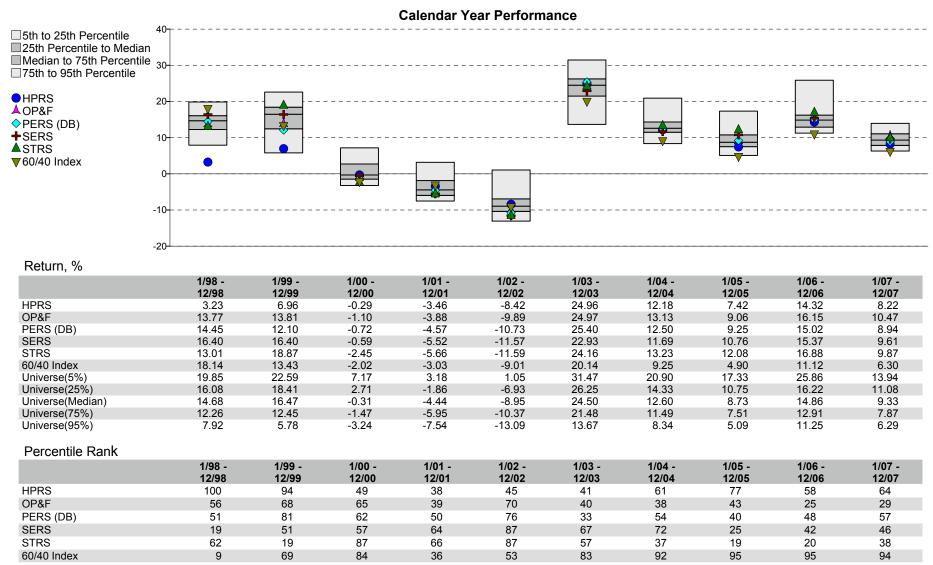
The graph above is a calendar year performance comparison with twelve-month measurement periods ending December 31, 2007. All plans except HPRS ranked above median for this universe in 2007. OP&F ranked in the first quartile. STRS, SERS and PERS placed in the second quartile and HPRS ranked in the third quartile.

Total Plans vs. Mellon Large Public Total Fund Universe Performance and Rank Data as of 06/30/08



The graph above is a cumulative performance comparison with measurement periods that are annualized over the last ten years and compares Total Fund results to a universe of Large Public Retirement Systems with total assets over one billion dollars. STRS and OP&F placed in the third quartile within the Mellon Large Public Total Fund Universe for the ten-year period, while HPRS, PERS and SERS ranked in the bottom quartile for the same period.

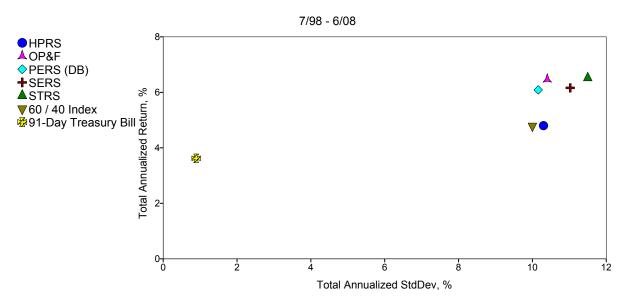
Total Plans vs. Mellon Large Public Total Fund Universe Performance and Rank Data as of 06/30/08



The graph above is a calendar year performance comparison with twelve-month measurement periods ending December 31, 2007. In 2007, all plans except HPRS and PERS ranked above the median return for this universe. OP&F ranked in the 29th percentile, STRS placed in the 38th percentile, SERS ranked in the 46th percentile, PERS placed in the 57th percentile, and HPRS ranked in the 64th percentile.

Total Plans Risk Analysis - Last 10 Years Performance Overview For Period Ending 06/30/08

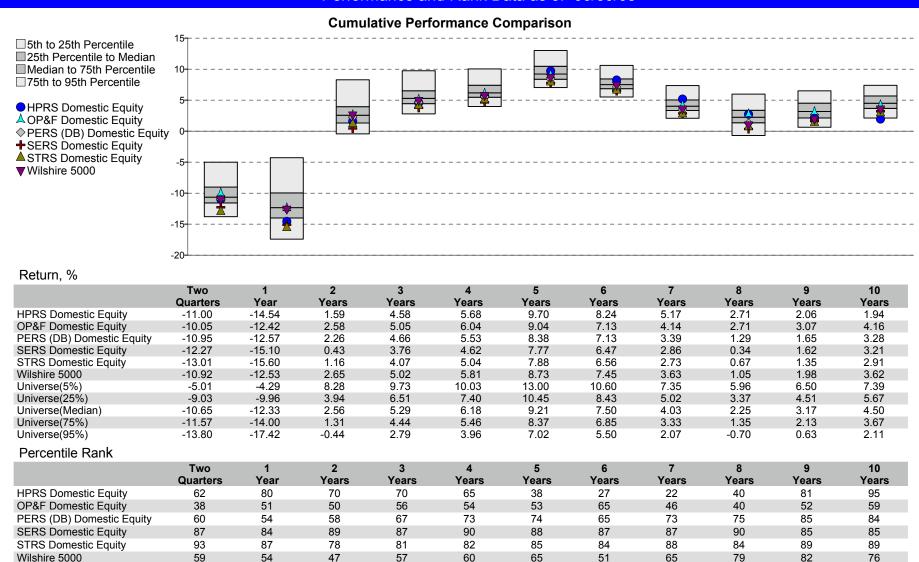
Performance vs. Risk



	Annualized Return, %	Annualized StdDev, %	MPT Statistics	
	Total	Total	Alpha, %	Sharpe Ratio
HPRS	4.80	10.30	1.65	0.16
OP&F	6.47	10.40	3.26	0.31
PERS (DB)	6.09	10.16	2.87	0.28
SERS	6.16	11.03	3.03	0.27
STRS	6.52	11.50	3.42	0.29
60 / 40 Index	4.79	10.00	1.61	0.16
91-Day Treasury Bill	3.63	0.89	0.00	NA

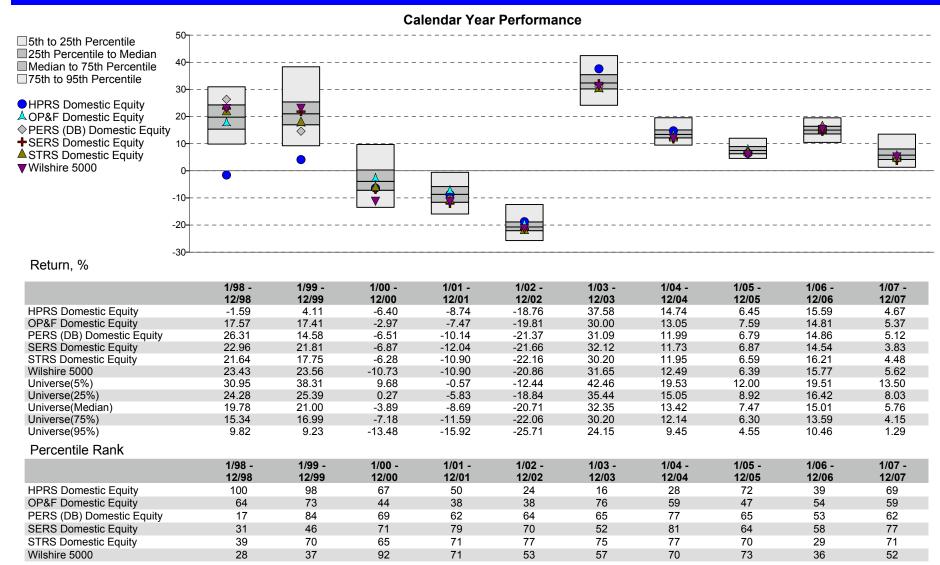
The graph above provides an analysis risk. The ten-year results are displayed in the risk-return space. The vertical axis shows the fund's return and the horizontal axis shows the fund's risk (defined as annualized quarterly standard deviation of returns) for the period. This analysis allows us to compare the funds to each other on a risk/return basis. For example, the three funds with the highest ten-year annualized return were STRS, OP&F and SERS. STRS' higher return was achieved with marginally higher risk (volatility) while OP&F and SERS returns were achieved with marginally lower risk. The Sharpe Ratio provides another tool for analysis. The number alone is not particularly meaningful, but when comparing two or more funds as is the case in this study, the higher Sharpe Ratio is the better risk-adjusted return.

Total Domestic Equities vs. Mellon All Domestic Equities Universe Performance and Rank Data as of 06/30/08



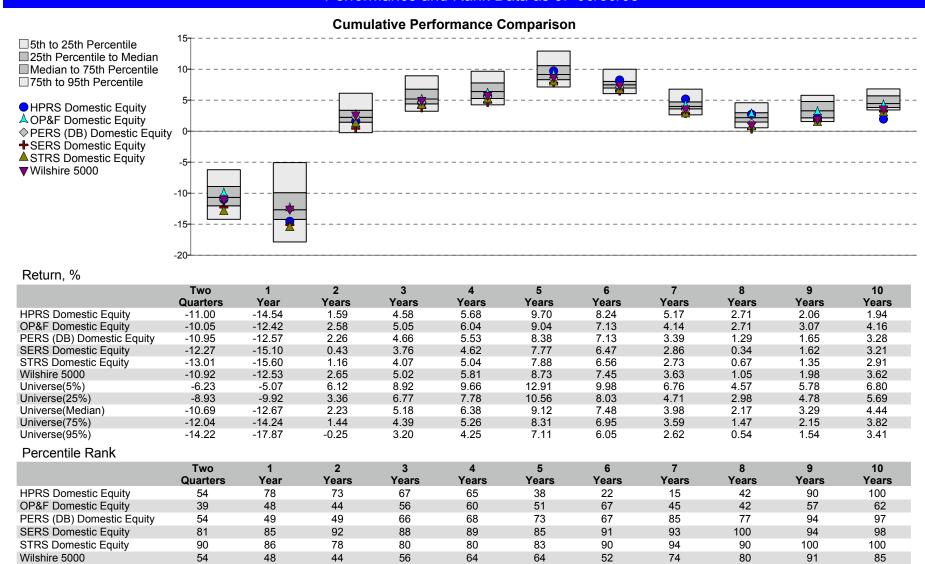
The exhibits above, and on the next three pages, focus on domestic equity results. The analysis is similar to the Total Fund analysis, except that now the comparisons are to a broad equity universe (above) and to the equity returns of Public Funds on pages 13 and 14. When compared to equity portfolios in the broad equity universe, for the past ten years, OP&F placed in the third quartile, while SERS, PERS, STRS and HPRS have ranked in the fourth quartile. The DJ Wilshire 5000 Index also ranked in the fourth quartile over the ten-year period.

Total Domestic Equities vs. Mellon All Domestic Equities Universe Performance and Rank Data as of 06/30/08



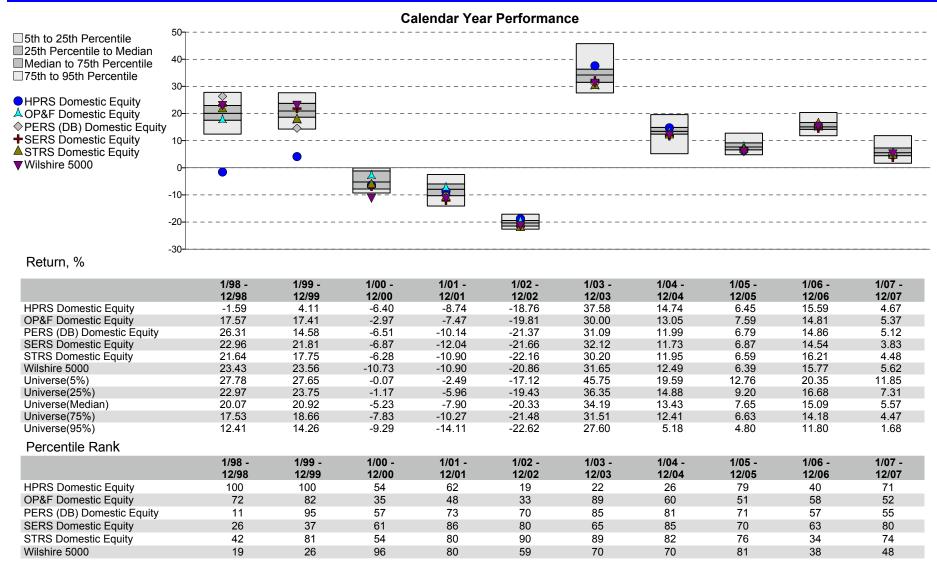
The graph above is a calendar year performance comparison with twelve-month measurement periods ending December 31, 2007 within the Mellon All Domestic Equities Universe. All plans, with the exception of SERS, ranked in the third quartile versus the universe in 2007. OP&F ranked in the 59th percentile, PERS DB ranked in the 62nd percentile, HPRS placed in the 69th percentile, STRS placed in the 71st percentile and SERS ranked in the 77th percentile.

Total Domestic Equities vs. Mellon All Public Domestic Equity Universe Performance and Rank Data as of 06/30/08



The comparisons above compares the domestic equity returns of the five Ohio public funds to the domestic equity returns of all of the public funds in the Mellon Universe. Over the ten-year period, all plans trailed the median return in the universe ranking in the bottom quartile, except for OP&F which placed in the third quartile.

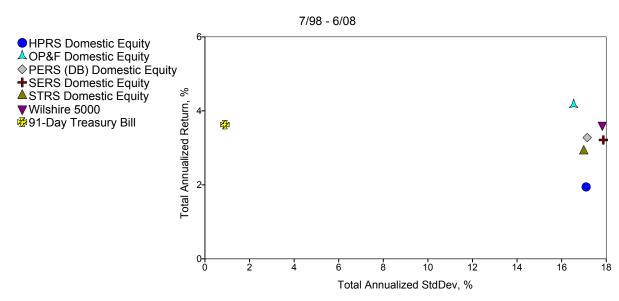
Total Domestic Equities vs. Mellon All Public Domestic Equity Universe Performance and Rank Data as of 06/30/08



The graph above is a calendar year performance comparison with twelve-month measurement periods ending December 31, 2007 within the Mellon All Public Domestic Equities Universe. In 2007, OP&F ranked in the 52nd percentile, PERS ranked in the 55th percentile, HPRS ranked in the 71st, STRS placed in the 74th percentile and SERS ranked in the 80th percentile.

Domestic Equity Risk Analysis - Last 10 Years Performance Overview For Period Ending 06/30/08

Performance vs. Risk



	Annualized Return, %	Annualized StdDev, %	MI Stati	PT stics
	Total	Total	Alpha, %	Sharpe Ratio
HPRS Domestic Equity	1.94	17.10	-0.19	-0.01
OP&F Domestic Equity	4.16	16.54	1.86	0.11
PERS (DB) Domestic Equity	3.28	17.15	1.09	0.06
SERS Domestic Equity	3.21	17.87	1.16	0.06
STRS Domestic Equity	2.91	16.99	0.72	0.04
Wilshire 5000	3.62	17.83	1.54	0.09
91-Day Treasury Bill	3.63	0.89	0.00	NA

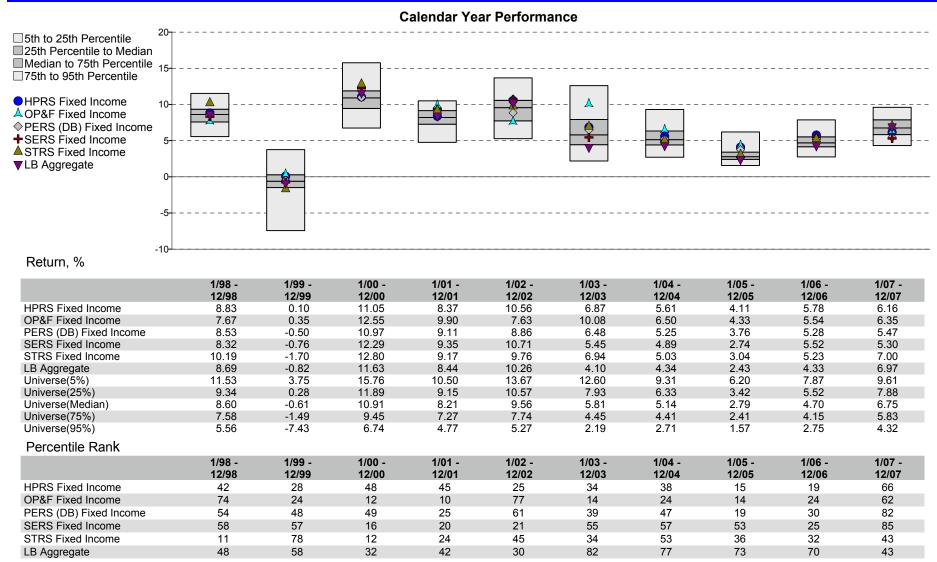
The analysis above represents a risk/return of the domestic equity portfolios for all of the plans. OP&F experienced the best risk-adjusted equity returns over the ten year period, followed by SERS, PERS DB, STRS and HPRS.

Total Fixed Income vs. Mellon All Domestic Fixed Income Universe Performance and Rank Data as of 06/30/08

Cumulative Performance Comparison ☐ 5th to 25th Percentile ■25th Percentile to Median ■ Median to 75th Percentile 10 ☐75th to 95th Percentile HPRS Fixed Income △ OP&F Fixed Income ♦ PERS (DB) Fixed Income +SERS Fixed Income ▲STRS Fixed Income ▼LB Aggregate Return, % Two 2 3 4 5 6 7 8 9 10 1 Quarters Year Years Years Years Years Years Years Years Years Years HPRS Fixed Income 0.995 45 6 46 4 70 5 62 4 78 5.87 6.35 6.96 6.66 6.36 **OP&F Fixed Income** 1.63 6.38 6.75 5.27 5.94 5.41 6.60 6.84 7.46 7.22 6.73 PERS (DB) Fixed Income -1.06 2.81 5.01 3.46 4.60 3.96 5.24 5.48 6.24 6.04 5.75 SERS Fixed Income -0.96 3.20 4.89 3.36 4.25 3.65 4.86 5.47 6.31 6.14 5.79 STRS Fixed Income 6.82 6.86 6.29 6.98 4.61 5.33 4.55 5.91 6.18 6.66 1.18 LB Aggregate 1.13 7.12 6.62 4 09 4.76 3.85 4 92 5.44 6.15 5.97 5.68 Universe(5%) 2.70 11.51 8.53 6.35 7.70 6.42 7.34 7.53 7.97 7.40 7.01 Universe(25%) 1.46 7.89 7.12 4.65 5.65 4.77 6.09 6.32 6.88 6.53 6.18 Universe(Median) 0.51 5.91 6.28 4.12 4.90 4.07 5.23 5.65 6.26 6.01 5.74 Universe(75%) -0.60 4.32 5.46 3.52 4.43 4.83 5.20 5.82 5.33 3.61 5.65 Universe(95%) -2.670.46 3.75 2.40 3.39 2.81 4.08 4.39 4.94 4.81 4.69 Percentile Rank 3 7 Two 1 2 4 5 6 8 9 10 Quarters Year Years **Years Years** Years Years Years Years **Years** Years HPRS Fixed Income 23 26 25 21 37 59 44 30 24 21 17 **OP&F Fixed Income** 21 45 38 12 18 11 13 12 10 8 7 PERS (DB) Fixed Income 84 86 85 77 68 55 49 61 51 49 48 SERS Fixed Income 81 85 86 80 81 72 72 61 49 45 47 STRS Fixed Income 33 38 30 26 33 31 29 25 21 21 31 35 35 40 51 60 61 69 63 59 53 LB Aggregate 55

The exhibit above, and on the next page, compare the fixed income results of the five funds to that of a broad fixed income universe consisting of all of the domestic fixed income accounts in the Mellon Universe. For the trailing ten-year period, all funds placed in either the top quartile (OP&F, HPRS and STRS) of the universe or the second quartile (SERS and PERS) of the universe.

Total Fixed Income vs. Mellon All Domestic Fixed Income Universe Performance and Rank Data as of 06/30/08



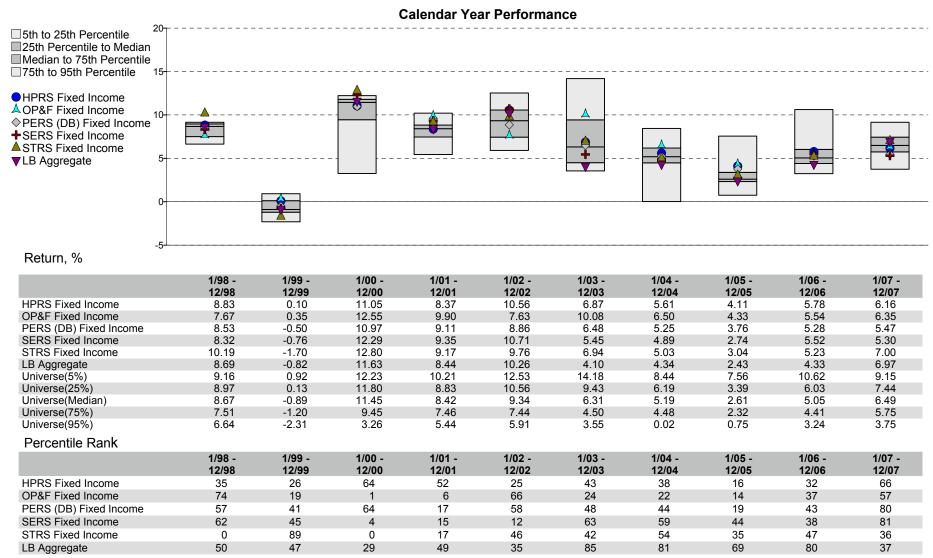
The graph above provides an analysis of the calendar year performance with twelve-month measurement periods ending December 31, 2007 within the Mellon All Domestic Fixed Income Universe. In 2007, STRS was the only plan that placed above median (43rd percentile). OP&F and HPRS ranked in the third quartile of the universe while PERS and SERS placed in the fourth quartile.

Total Fixed Income vs. Mellon All Public Domestic Fixed Income Universe Performance and Rank Data as of 06/30/08

Cumulative Performance Comparison ☐5th to 25th Percentile ■25th Percentile to Median ■ Median to 75th Percentile 8-☐75th to 95th Percentile HPRS Fixed Income △ OP&F Fixed Income ♦ PERS (DB) Fixed Income 4 +SERS Fixed Income \$ ▲STRS Fixed Income ▼LB Aggregate Return, % Two 2 3 5 6 7 8 9 10 1 Quarters Year Years Years Years Years Years Years Years Years Years HPRS Fixed Income 0.995 45 6 46 4.70 5 62 4 78 5 87 6.35 6.96 6.66 6.36 **OP&F Fixed Income** 1.63 6.38 6.75 5.27 5.94 5.41 6.60 6.84 7.46 7.22 6.73 PERS (DB) Fixed Income 5.24 -1.062.81 5.01 3.46 4.60 3.96 5.48 6.24 6.04 5.75 SERS Fixed Income -0.963.20 4.89 3.36 4.25 3.65 4.86 5.47 6.31 6.14 5.79 STRS Fixed Income 5.33 5.91 6.86 6.29 1.18 6.82 6.98 4.61 4.55 6.18 6.66 LB Aggregate 1.13 7.12 6.62 4.09 4.76 3 85 4 92 5 44 6.15 5.97 5.68 Universe(5%) 2.70 9.22 8.07 6.95 9.46 6.36 7.77 7.61 7.28 6.73 6.37 Universe(25%) 1.46 7.67 7.13 4.96 5.89 4.58 6.14 6.26 6.92 6.53 5.98 Universe(Median) 0.58 5.59 6.48 4.19 4.97 4.09 5.27 5.72 6.40 6.17 5.83 Universe(75%) 4.22 5.58 3.72 4.50 4.90 6.20 5.96 5.66 -0.473.72 5.35 Universe(95%) -2.45 0.82 3.96 2.43 3.32 3.14 4.59 5.11 5.69 5.19 4.89 Percentile Rank 2 3 9 Two 1 4 5 6 7 8 10 Quarters Year Years **Years** Years Years Years Years Years **Years** Years HPRS Fixed Income 50 28 28 20 21 5 37 55 36 20 11 **OP&F Fixed Income** 21 39 42 21 24 12 14 8 0 0 0 PERS (DB) Fixed Income 89 86 85 78 72 57 57 64 72 72 71 SERS Fixed Income 87 84 87 79 82 77 88 66 67 65 69 STRS Fixed Income 33 38 35 29 32 27 35 36 29 11 8 34 37 47 59 66 65 74 71 79 75 LB Aggregate 74

The exhibit above compares the fixed income results of the five funds to that of the domestic fixed income returns of the public funds in the Mellon Universe. Over the ten-year period, three of the five plans outpaced the median return. OP&F, HPRS and STRS ranked in the top quartile, while SERS and PERS placed in the third quartile of the universe.

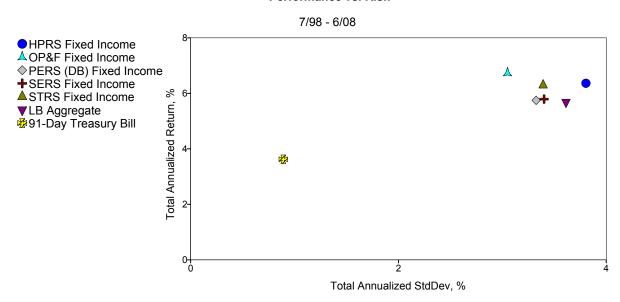
Total Fixed Income vs. Mellon All Public Domestic Fixed Income Universe Performance and Rank Data as of 06/30/08



The graph above provides an analysis of the calendar year performance with twelve-month measurement periods ending December 31, 2007 within the Mellon All Public Domestic Fixed Income Universe. In 2007, STRS ranked in the second quartile, while OP&F and HPRS ranked in the third quartile of the universe, and PERS and SERS placed in the fourth quartile.

Domestic Fixed Income Risk Analysis - Last 10 Years Performance Overview For Period Ending 06/30/08

Performance vs. Risk



	Annualized Return, %	Annualized StdDev, %	MI Stati	•
	Total	Total	Alpha, %	Sharpe Ratio
HPRS Fixed Income	6.36	3.80	2.70	0.71
OP&F Fixed Income	6.73	3.05	3.03	0.99
PERS (DB) Fixed Income	5.75	3.33	2.10	0.64
SERS Fixed Income	5.79	3.40	2.14	0.64
STRS Fixed Income	6.29	3.39	2.62	0.79
LB Aggregate	5.68	3.61	2.05	0.58
91-Day Treasury Bill	3.63	0.89	0.00	NA

The analysis above represents a risk/return of the domestic fixed income portfolios for all of the plans. OP&F experienced the best risk-adjusted fixed income returns over the ten year period, followed by STRS, HPRS, SERS and PERS DB.

Total International Equities vs. Mellon All International Equity Universe Performance and Rank Data as of 06/30/08

Cumulative Performance Comparison ☐ 5th to 25th Percentile ■25th Percentile to Median ■ Median to 75th Percentile ☐75th to 95th Percentile HPRS Int'l Equity ▲OP&F Int'l Equity ◆ PERS (DB) Int'l Equity +SERS Int'l Equity ▲ STRS Int'l Equity ▼MSCI EAFE -5-Return, % Two 2 3 4 5 6 8 9 10 1 7 Quarters Year Years Years Years Years Years Years Years Years Years HPRS Int'l Equity -8.81 -4.0010.47 15.45 14.82 17.07 12.30 9 28 5.58 7.21 7.19 **OP&F Int'l Equity** -10.72 -5.3811.33 17.08 16.70 19.72 15.10 11.17 5.41 7.21 7.61 PERS (DB) Int'l Equity -9.96 -6.9910.21 16.16 16.27 19.42 15.00 11.29 6.06 8.08 8.23 SERS Int'l Equity -10.68 -9.77 10.07 16.47 17.18 19.19 14.14 9.99 6.13 7.43 7.48 STRS Int'l Equity 7.14 8.49 -11.02 -9.11 9.03 15.38 17.02 19.37 14.97 11.38 8.93 MSCI EAFE -10.96 -10.61 6.55 12.84 13.04 16.67 12.45 9.02 4 28 5.63 5.83 Universe(5%) -5.24 0.17 14.63 19.98 19.80 21.96 17.36 14.13 10.49 12.11 12.16 Universe(25%) -8.72 -5.8610.91 16.23 16.35 19.33 15.29 12.09 8.12 9.45 9.72 Universe(Median) -10.20 -7.71 9.33 14.82 15.02 18.20 14.06 10.96 6.41 8.15 8.40 Universe(75%) -10.21 7.44 12.78 -11.16 13.16 13.40 16.72 9.56 5.06 6.82 7.14 Universe(95%) -14.06 -13.894.02 10.12 11.31 14.72 10.91 6.45 1.27 4.77 5.31 Percentile Rank 2 3 7 8 Two 1 4 5 6 9 10 Quarters Year Years Years Years Years Years **Years** Years Years Years HPRS Int'l Equity 26 14 31 38 52 69 86 80 63 66 74 **OP&F Int'l Equity** 63 21 19 17 20 21 27 46 65 66 67 PERS (DB) Int'l Equity 46 40 37 26 27 23 28 45 57 52 56 SERS Int'l Equity 62 72 39 23 17 30 46 68 56 64 69 STRS Int'l Equity 72 65 53 39 18 29 40 35 41 38 24

The exhibit above, and on the next page, compare the international equity results of the five funds to that of a broad international equity universe consisting of all of the international equity accounts in the Mellon Universe. For the ten-year period ending June 30, 2008, STRS was the only fund to rank above median (38th percentile). PERS, OP&F, SERS and HPRS ranked in the 56th percentile, 67th percentile, 69th percentile and 74th percentile, respectively.

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MSCI EAFE

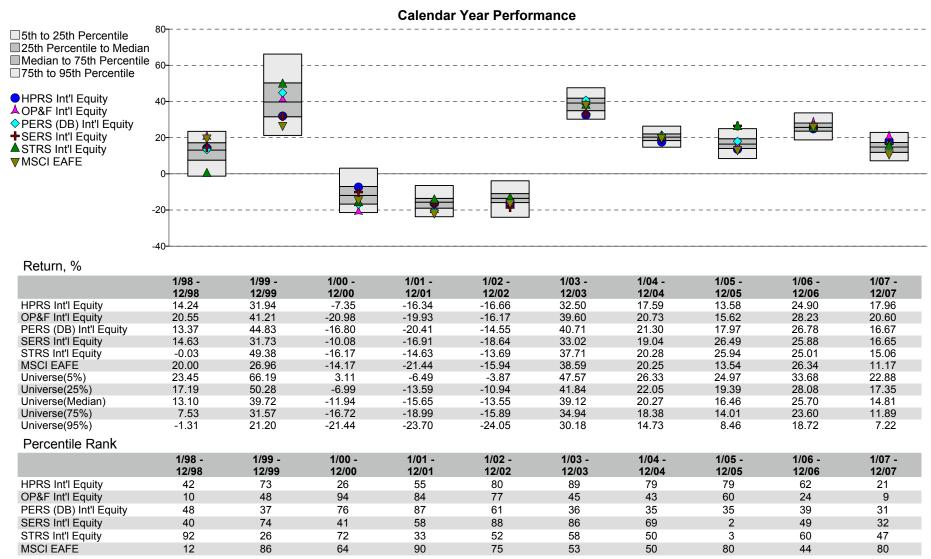
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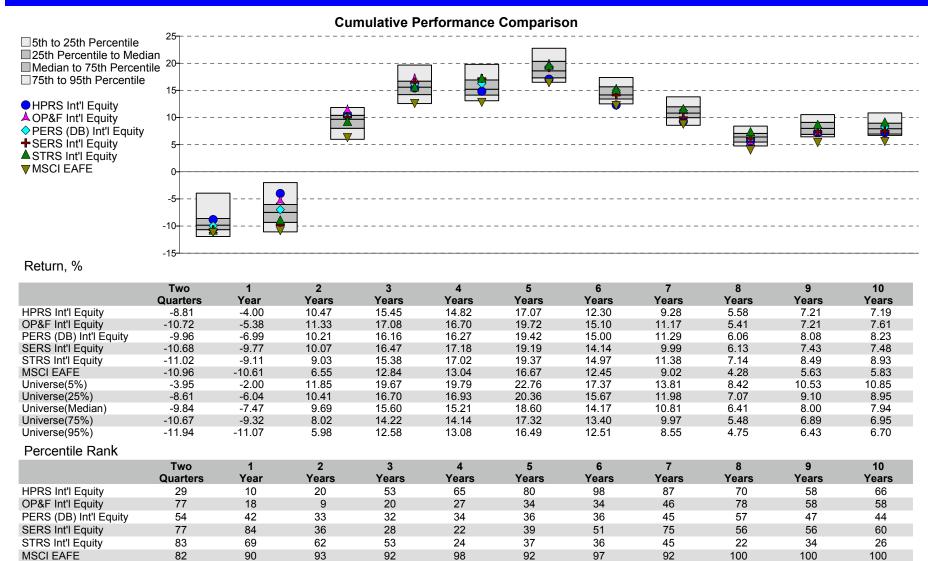
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Total International Equities vs. Mellon All International Equity Universe Performance and Rank Data as of 06/30/08



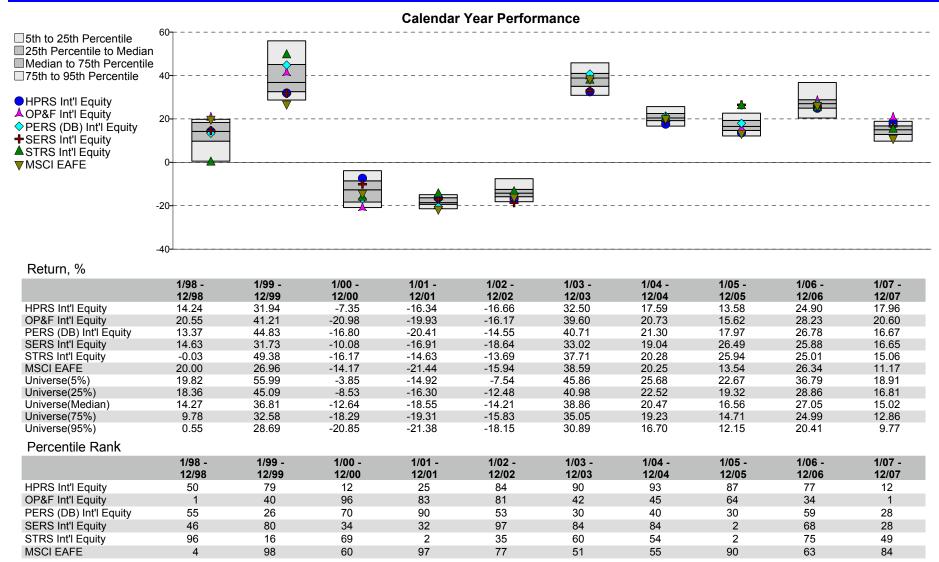
The graph above provides an analysis of the calendar year performance with twelve-month measurement periods ending December 31, 2007 within the Mellon All International Equity Universe. In 2007, OP&F ranked in the 9th percentile, HPRS ranked in the 21st percentile, PERS ranked in the 31st percentile, SERS placed in the 32nd percentile and STRS ranked in the 47th percentile.

Total International Equities vs. Mellon All Public International Equity Universe Performance and Rank Data as of 09/30/08



The exhibit above, and on the next page, compare the international equity results of the five funds to that of the Mellon All Public International Equity Universe. For the ten-year period ending June 30, 2008, STRS and PERS ranked in the second quartile, whereas OP&F, SERS and HPRS ranked in the third quartile. STRS ranked in the 26th percentile, PERS ranked in the 44th percentile, OP&F ranked in the 56th percentile, SERS ranked in the 60th percentile and HPRS ranked in the 66th percentile.

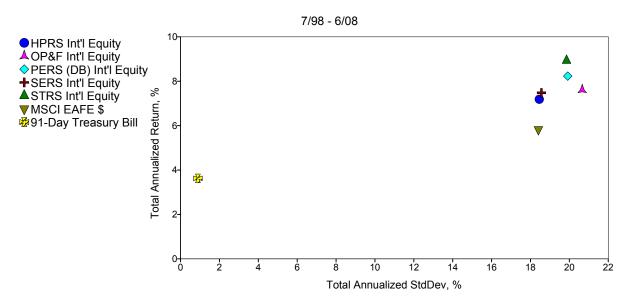
Total International Equities vs. Mellon All Public International Equity Universe Performance and Rank Data as of 09/30/08



The graph above provides an analysis of the calendar year performance with twelve-month measurement periods ending December 31, 2007 within the Mellon All Public International Equity Universe. In 2007, OP&F and HPRS ranked in the first quartile, PERS, SERS and STRS ranked in the second quartile.

International Equity Risk Analysis - Last 10 Years Performance Overview For Period Ending 06/30/08

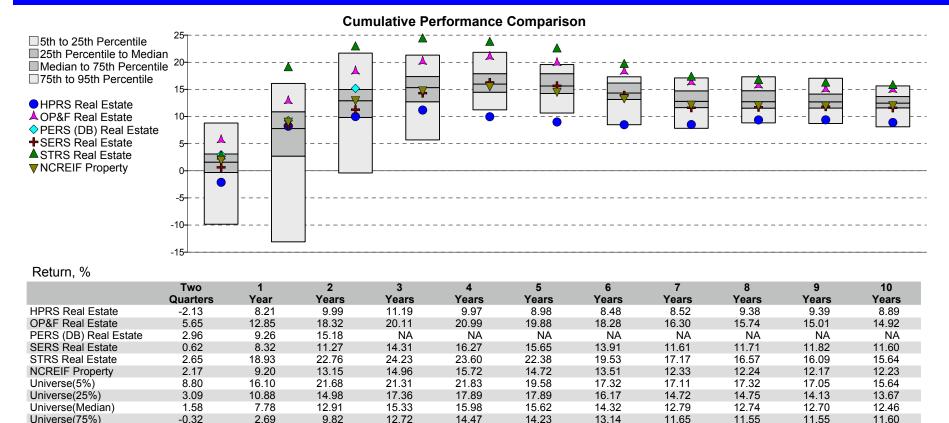
Performance vs. Risk



	Annualized Return, %	Annualized StdDev, %	MI Stati	:
	Total	Total	Alpha, %	Sharpe Ratio
HPRS Int'l Equity	7.19	18.45	5.09	0.27
OP&F Int'l Equity	7.61	20.66	5.88	0.28
PERS (DB) Int'l Equity	8.23	19.92	6.31	0.31
SERS Int'l Equity	7.48	18.56	5.40	0.29
STRS Int'l Equity	8.93	19.86	6.97	0.35
MSCI EAFE \$	5.83	18.41	3.77	0.20
91-Day Treasury Bill	3.63	0.89	0.00	NA

The analysis above represents a risk/return comparison of the international equity portfolios for all of the plans. All plans have demonstrated risk-adjusted results (as measured by their Sharpe Ratios) greater than the non-U.S. equity market as defined by the MSCI EAFE index over the ten-year period. All of the five plans produced similar risk return characteristics for the period led by STRS and PERS.

Total Real Estate vs. Mellon All Real Estate Universe Performance and Rank Data as of 06/30/08



Percentile Rank

-9.86

-13.10

-0.41

5.68

Universe(95%)

	Two	1	2	3	4	5	6	7	8	9	10
	Quarters	Year	Years								
HPRS Real Estate	84	47	73	81	96	96	95	93	89	92	90
OP&F Real Estate	9	15	10	12	8	5	3	6	12	15	13
PERS (DB) Real Estate	27	36	22	NA							
SERS Real Estate	68	46	66	60	44	45	59	76	73	71	76
STRS Real Estate	31	3	3	2	2	2	2	5	6	10	5
NCREIF Property	37	36	47	54	54	62	64	60	63	65	59

11.23

10.64

8.49

7 82

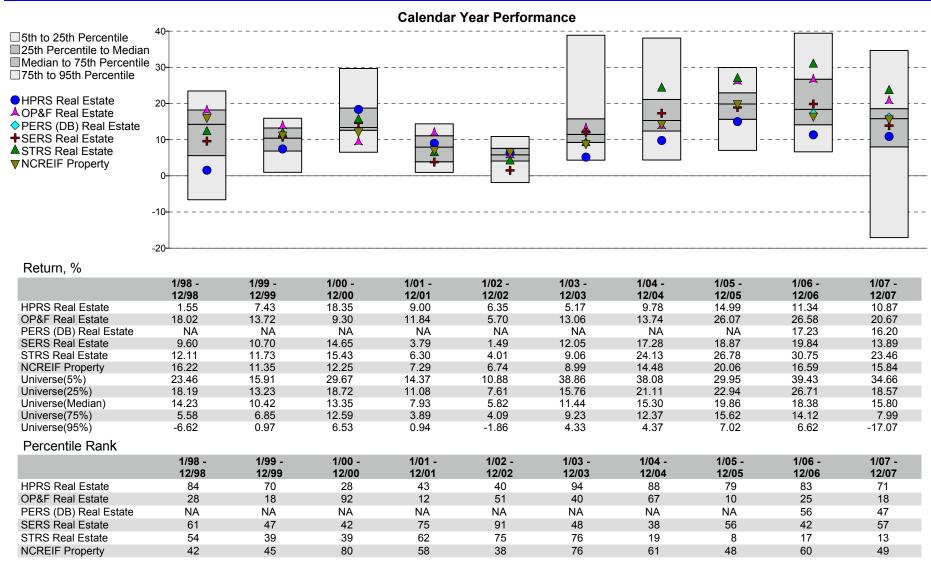
8.83

8.71

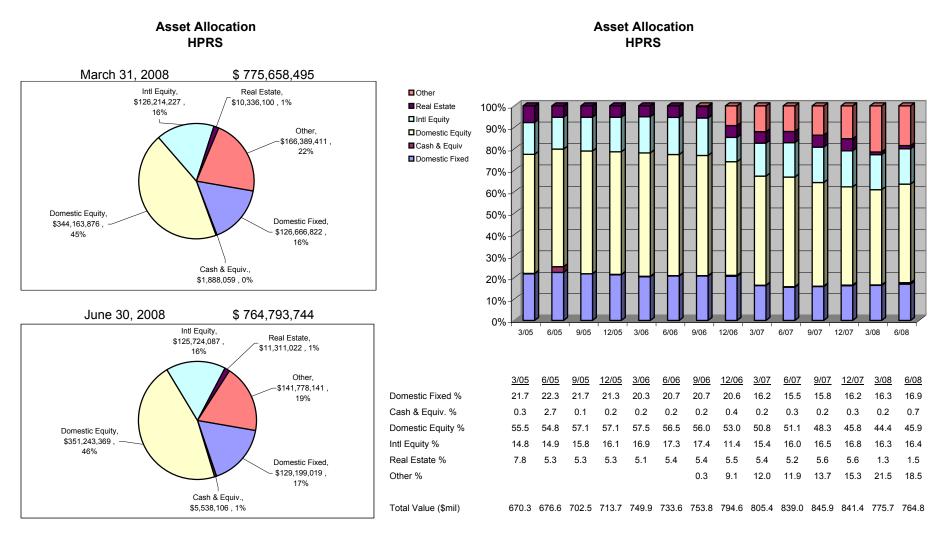
8.10

The exhibit above, and on the next page, compare real estate results of the five funds to that of a broad real estate universe consisting of all of the real estate accounts in the Mellon Universe. Beginning January 1, 2006, PERS viewed REITS and private real estate as separate asset classes, therefore the prior return series is no longer being reported. For the ten-year period ending June 30, 2008, STRS and OP&F exceeded the median return to place in the 5th percentile and 13th percentile, respectively. SERS and HRPS rank in the bottom quartile. We have not included a risk/return analysis for real estate. While institutional investors in real property compute and report quarterly returns, these returns are based on appraisals and are not appropriately compared with other investments which actually trade on a daily basis. An annualized quarterly standard deviation of returns for real estate is, in our judgment, an insignificant number.

Total Real Estate vs. Mellon All Real Estate Universe Performance and Rank Data as of 06/30/08



The graph above provides an analysis of the calendar year performance with twelve-month measurement periods ending December 31, 2007 within the Mellon All Real Estate Universe. In 2007, STRS and OP&F outpaced the median real estate return, which placed both plans in the top quartile of the universe. For the same time period, PERS also beat the median real estate return to place in the second quartile of the universe, while SERS and HPRS lagged the median return to rank in the third and fourth quartile respectively of the Mellon Universe.



This is the first page devoted to the analysis of the Ohio Highway Patrol Retirement System's asset allocation. The chart on the left displays the fund's asset allocation over the first two quarters of 2008. The chart on the right tracks the quarterly asset allocation of the fund over the last fourteen quarters.

Quarter Ending 6/30/2008

	Quarter	Quarter		
Label	Start	End	Percent	Description
Policy Index	Mar-94	Dec-95	50.0	LB Aggregate
			50.0	Standard & Poors 500
	Mar-96	Dec-97	50.0	Standard & Poors 500
			40.0	LB Aggregate
			5.0	MSCI EAFE (Net)
			5.0	NCREIF
	Mar-98	Sep-99	40.0	Standard & Poors 500
			25.0	LB Aggregate
			15.0	Russell 2000
			10.0	MSCI EAFE (Net)
			10.0	NCREIF
	Dec-99	Dec-01	40.0	Standard & Poors 500
			20.0	Russell 2000
			20.0	LB Aggregate
			10.0	MSCI EAFE (Net)
			10.0	NCREIF
	Mar-02	Dec-02	40.0	Standard & Poors 500
			20.0	Russell 2500
			20.0	LB Aggregate
			10.0	MSCI EAFE (Net)
			10.0	NCREIF
	Mar-03	Dec-06	32.0	Standard & Poors 500
			16.0	Russell 2500
			25.0	LB Aggregate
			15.0	MSCI EAFE (Net)
			12.0	NCREIF

	Quarter	Quarter		
Label	Start	End	Percent	Description
Policy Index	Mar-07	Dec-07	32.0	Standard & Poors 500
			18.0	Russell 2500
			15.0	MSCI ACWI ex US
			5.0	NCREIF
			10.0	CPI + 5%
			5.0	HFRI Fund of Funds
			15.0	LB Aggregate
	Dec-07	Jun-07	65.0	Russell 3000
			15.0	MSCI ACWI ex US
			20.0	LB Aggregate

HPRS' custom policy index is listed above. The chart tracks the fund's change in asset allocation strategy over the past thirteen years.

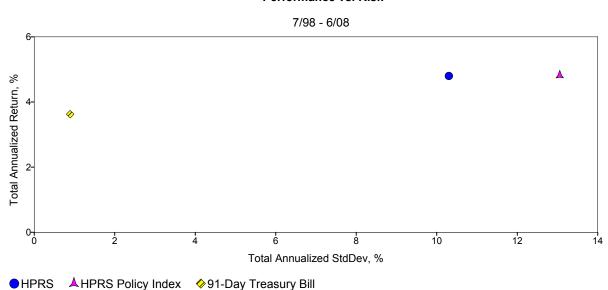
Performance Overview
Returns for Period Ending June 30, 2008

	2 Qtrs	<u>1 Yr</u>	<u>3 Yrs</u>	<u>5 Yrs</u>	<u>10 Yrs</u>
Total Fund	-6.77	-6.00	7.15	9.57	4.80
Policy Index	-8.37	-7.81	6.40	9.18	4.82
Domestic Equity Domestic Equity Segment Median Wilshire 5000	-11.00	-14.54	4.58	9.70	1.94
	-10.65	-12.33	5.29	9.21	4.50
	-10.92	-12.53	5.02	8.73	3.62
International Equity	-8.81	-4.00	15.45	17.07	7.19
International Equity Segment Median	-10.20	-7.71	14.82	18.20	8.40
MSCI EAFE	-10.96	-10.61	12.84	16.67	5.83
Fixed Income	0.99	5.45	4.70	4.78	6.36
Fixed Income Segment Median	0.51	5.91	4.12	4.07	5.74
LB Aggregate	1.13	7.12	4.09	3.85	5.68
Cash	1.80	5.60	5.25	3.95	4.05
Real Estate	-2.13	8.21	11.19	8.98	8.89
NCREIF	2.17	9.20	14.96	14.72	12.23
Alternatives	2.10	5.83	NA	NA	NA

Over the ten-year period as of June 30, 2008, the fund's total return has underperformed its policy index by 2 basis points. The more recent one-year period shows that HPRS outperformed the policy index by 160 basis points.

HPRS Total Fund Risk Analysis - Last 10 Years Performance Overview For Period Ending 06/30/08

Performance vs. Risk



	Annualized Return, %	Annualized StdDev, %	M Stati	PT istics
	Total	Total	Alpha, %	Sharpe Ratio
HPRS	4.80	10.30	1.65	0.16
HPRS Policy Index	4.82	13.06	1.98	0.15
91-Day Treasury Bill	3.63	0.89	0.00	NA

The graph above shows that HPRS underperformed the return of its policy index for the ten-year period by 2 basis points.

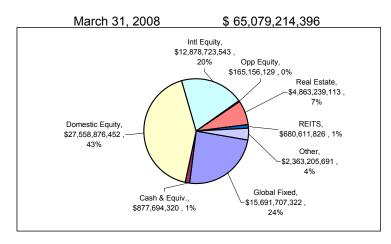
Asset Allocation Actual vs. Benchmark December 31, 2007

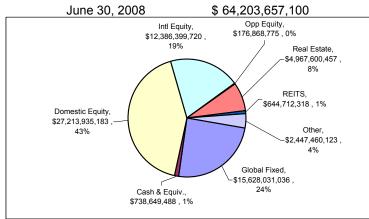
Asset Class	Asset Allocation	Benchmark	Benchmark Weighting	Difference
Domestic Equity	45.8%	32% S & P 500 / 18% Russell 2500	50.0%	-4.2%
Fixed Income	16.2%	LB Aggregate	15.0%	1.2%
Intl. Equity	16.8%	MSCI AC World Index ex US	15.0%	1.8%
Real Estate	5.6%	NCREIF	5.0%	0.6%
Alternative Investments	15.3%	5% HFRI FOF / 10% CPI + 5%	15.0%	0.3%
Short Term	0.3%	3 Month T-Bill	0.0%	0.3%
		June 30, 2008		

Asset Class	Asset Allocation	Benchmark	Benchmark Weighting	Difference
Domestic Equity	45.9%	32% S & P 500 / 18% Russell 2500	50.0%	-4.1%
Fixed Income	16.9%	LB Aggregate	15.0%	1.9%
Intl. Equity	16.4%	MSCI AC World Index ex US	15.0%	1.4%
Real Estate	1.5%	NCREIF	5.0%	-3.5%
Alternative Investments	18.5%	5% HFRI FOF / 10% CPI + 5%	15.0%	3.5%
Short Term	0.3%	3 Month T-Bill	0.0%	0.3%

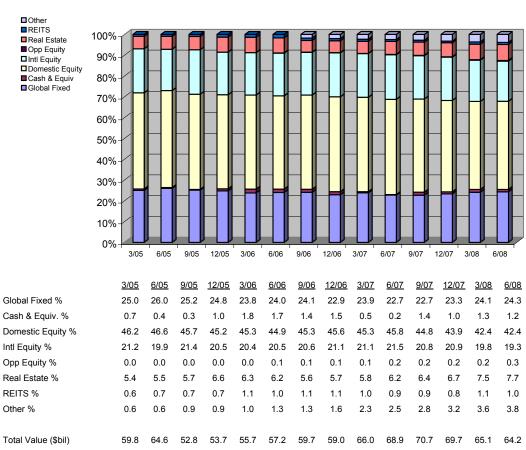
As of the end of second quarter, HPRS is overweight fixed income, international equity, alternative investments and cash, while being underweight in domestic equity and real estate.

Asset Allocation PERS Defined Benefit Plan





Asset Allocation PERS Defined Benefit Plan



Note: Defined benefit and health care plan assets were segregated in January 2005. An allocation of 24.34% to total fixed income consists of 14.54% (fixed income), 0.07% (stable value) and 9.73% (long duration) as of June 30, 2008.

This is the first page devoted to the analysis of the Ohio Public Employees Retirement System Defined Benefit Plan's asset allocation. The chart on the left displays the fund's asset allocation over the first two quarters of 2008. The chart on the right tracks the quarterly asset allocation of the fund over the last fourteen quarters.

Defined Benefit Plan Quarter Ending 6/30/2008

Label	Quarter Start	Quarter End	Percent	Description
	Mar-94	Jun-95	68.0	SB Broad Inv Grade
Policy Index	IVIAI-94	Jun-95		
			17.0	Standard & Poors 500
			8.0	91-Day Treasury Bill
			7.0	NCREIF
	Sep-95	Dec-95	59.0	SB Broad Inv Grade
			26.0	Standard & Poors 500
			8.0	NCREIF
			6.0	91-Day Treasury Bill
			1.0	MSCI EAFE (Net)
	Mar-96	Dec-96	62.5	SB Broad Inv Grade
			23.0	Standard & Poors 500
			8.0	NCREIF
			4.5	91-Day Treasury Bill
			2.0	MSCI EAFE (Net)
	Mar-97	Dec-97	56.5	SB Broad Inv Grade
			27.0	Standard & Poors 500
			8.0	NCREIF
			4.5	91-Day Treasury Bill
			4.0	MSCI EAFE (Net)
	Mar-98	Dec-98	51.0	SB Broad Inv Grade
	Widi 00	D00 00	30.5	Standard & Poors 500
	1		8.0	NCREIF
			6.0	MSCI EAFE (Net)
				` ,
			4.5	91-Day Treasury Bill

		0 1		T
	Quarter	Quarter		
Label	Start	End	Percent	Description
Policy Index (cont.)	Dec-98	Dec-98	51.0	SB Broad Inv Grade
			30.5	Russell 3000
			6.0	MSCI World Ex-US (Net)
			4.8	NCREIF
			4.5	91-Day Treasury Bill
			1.6	NAREIT
			1.6	Giliberto-Levy Mortgage
	Mar-99	Mar-99	45.4	SB Broad Inv Grade
			35.0	Standard & Poors 500
			7.6	MSCI World Ex-US (Net)
			6.6	NCREIF
			2.2	NAREIT
			2.2	Giliberto-Levy Mortgage
			1.0	91-Day Treasury Bill
	Jun-99	Jun-99	40.1	SB Broad Inv Grade
			35.0	Standard & Poors 500
			12.9	MSCI World Ex-US (Net)
			6.6	NCREIF
			2.2	NAREIT
			2.2	Giliberto-Levy Mortgage
			1.0	91-Day Treasury Bill
				5 · 24) · · · · · · · · · · · · · · · · · · ·

Charts above and on the following pages track PERS asset allocation policy index over the past thirteen years.

Defined Benefit Plan Quarter Ending 6/30/2008

	Quarter	Quarter		
Label	Start	End	Percent	Description
Policy Index (cont.)	Sep-99	Mar-02	36.1	SB Broad Inv Grade
, , , , , , , , , , , , , , , , , , , ,			35.0	Standard & Poors 500
			16.9	MSCI World Ex-US (Net)
			6.6	NCREIF ` ´
			2.2	NAREIT
			2.2	Giliberto-Levy Mortgage
			1.0	LB Bellweather 3Mth T-Bill
	Mar-02	Mar-02	34.3	S&P 1500
			31.8	SB Broad Inv Grade
			18.9	MSCI World Ex-US (Net)
			5.7	NCREIF
			3.0	Russell 3000
			2.3	LB Bellweather 3Mth T-Bill
			1.9	NAREIT
			1.9	Giliberto-Levy Mortgage
			0.2	Standard & Poors 500
	Jun-02	Sep-02	34.7	S&P 1500
			29.2	SB Broad Inv Grade
			19.3	MSCI World Ex-US (Net)
			5.8	Russell 3000
			5.6	NCREIF
			1.9	NAREIT
			1.9	Giliberto-Levy Mortgage
			1.5	LB Bellweather 3Mth T-Bill
			0.2	Standard & Poors 500

	T		1	T
	Quarter	Quarter		
Label	Start	End	Percent	Description
Policy Index (cont.)	Sep-02	Sep-02	44.7	Russell 3000
			25.6	SB Broad Inv Grade
			19.7	MSCI World Ex-US (Net)
			5.5	NCREIF
			1.8	NAREIT
			1.8	Giliberto-Levy Mortgage
			0.7	LB Bellweather 3Mth T-Bill
			0.2	Standard & Poors 500
	Dec-02	Dec-02	47.0	Russell 3000
			23.0	SB Broad Inv Grade
			20.0	MSCI World Ex-US (Net)
			5.4	NCREIF ` ´
			1.8	NAREIT
			1.8	Giliberto-Levy Mortgage
			0.6	LB Bellweather 3Mth T-Bill
			0.4	Standard & Poors 500
	Mar-03	Dec-04	46.0	Russell 3000
			23.0	Lehman Universal
			20.0	MSCI AC World Ex-US (Net)
			8.1	NCREIF
			0.9	Wilshire Real Estate Securities
			1.0	LB Bellweather 3Mth T-Bill
			1.0	Russell 3000 + 3% (1 Qtr arrears)
				Tables 3000 1070 (1 Qui unouro)

Defined Benefit Plan Quarter Ending 6/30/2008

Label	Quarter Start	Quarter End	Percent	Description
Policy Index (cont.)	Dec-04	Mar-05	46.3 26.2 20.0 5.8 0.7 1.0	Russell 3000 Lehman Universal MSCI AC World Ex-US (Net) Custom Real Estate Russell 3000 + 3% (1 Qtr arrears) LB Bellweather 3Mth T-Bill
	Mar-05	Jun-05	46.1 26.0 20.0 6.0 0.9 1.0	Russell 3000 Lehman Universal MSCI AC World Ex-US (Net) Custom Real Estate Russell 3000 + 3% (1 Qtr arrears) LB Bellweather 3Mth T-Bill
	Jun-05	Sep-05	46.1 25.8 20.0 6.2 0.9 1.0	Russell 3000 Lehman Universal MSCI AC World Ex-US (Net) Custom Real Estate Russell 3000 + 3% (1 Qtr arrears) LB Bellweather 3Mth T-Bill

				7
	Quarter	Quarter		
Label	Start	End	Percent	Description
Policy Index (cont.)	Sep-05	Dec-05	46.0	Russell 3000
			25.6	Lehman Universal
			20.0	MSCI AC World Ex-US (Net)
			6.4	Custom Real Estate
			1.0	Russell 3000 + 3% (1 Qtr arrears)
			1.0	LB Bellweather 3Mth T-Bill
	Dec-05	Mar-06	45.7	Russell 3000
			24.4	Lehman Universal
			20.0	MSCI AC World Ex-US (Net)
			7.6	Custom Real Estate
			1.3	Russell 3000 + 3% (1 Qtr arrears)
			1.0	LB Bellweather 3Mth T-Bill
	Mar-06	Jun-06 45.6 Russell 3		Russell 3000
			24.7	Lehman Universal
			20.0	MSCI AC World Ex-US (Net)
			7.3	Custom Real Estate
			1.4	Russell 3000 + 3% (1 Qtr arrears)
			1.0	LB Bellweather 3Mth T-Bill
				25 Sourceuror circuit i Sin

Defined Benefit Plan Quarter Ending 6/30/2008

				1
1	Quarter	Quarter		
Label	Start	End	Percent	Description
Policy Index (cont.)	Jun-06	Sep-06	45.4	Russell 3000
			24.8	Lehman Universal
			20.0	MSCI AC World Ex-US (Net)
			6.3	Real Estate
			1.0	Wilshire Resi Full Cap
			1.6	Russell 3000 + 3% (1 Qtr arrears)
			1.0	LB Bellweather 3Mth T-Bill
	Sep-06	Dec-06	45.2	Russell 3000
			25.4	Lehman Universal
			20.0	MSCI AC World Ex-US (Net)
			5.6	Real Estate
			1.0	Wilshire Resi Full Cap
			1.8	Russell 3000 + 3% (1 Qtr arrears)
			1.0	LB Bellweather 3Mth T-Bill
	Dec-06	Mar-07	46.0	Russell 3000
			25.3	LB Universal/LB Long G/C
			20.0	MSCI AC World Ex-US (Net)
			5.7	Real Estate
			1.0	Wilshire Resi Full Cap
1			0.1	Russell 3000 + 3% (1 Qtr arrears)
			2.0	LB Bellweather 3Mth T-Bill
			2.0	ED DOMINICATION CIVILITY TO BIN

	Quarter	Quarter		
Label	Start	End	Percent	Description
Policy Index (cont.)	Mar-07	Jun-07	45.7	Russell 3000
			25.2	LB Universal/LB Long G/C
			20.0	MSCI AC World Ex-US (Net)
			5.8	Real Estate
			1.0	Wilshire Resi Full Cap
			0.1	Russell 3000 + 3% (1 Qtr arrears)
			2.3	LB Bellweather 3Mth T-Bill
	Jun-07	Sep-07	45.6	Russell 3000
		·	25.2	LB Universal/LB Long G/C
			20.0	MSCI AC World Ex-US (Net)
			6.8	Real Estate
			2.3	Wilshire Resi Full Cap
			0.1	Russell 3000 + 3% (1 Qtr arrears)
			0.0	LB Bellweather 3Mth T-Bill
	Sep-07	Dec-07	45.1	Russell 3000
	·		24.6	LB Universal/LB Long G/C
			20.0	MSCI AC World Ex-US (Net)
			7.4	Real Estate
			2.8	Wilshire Resi Full Cap
			0.2	Russell 3000 + 3% (1 Qtr arrears)
			0.0	LB Bellweather 3Mth T-Bill
			2.0	

The current policy is located on the following page.

Defined Benefit Plan Quarter Ending 6/30/2008

Label	Quarter Start	Quarter End	Percent	Description
Policy Index (cont.)	Dec-07	Mar-08	44.9 24.0 20.0 6.7 1.0 3.2 0.2	Russell 3000 LB Universal/LB Long G/C MSCI AC World Ex-US (Net) Real Estate Wilshire Resi Full Cap Russell 3000 + 3% (1 Qtr arrears) LB Bellweather 3Mth T-Bill
	Mar-08	Jun-08	44.9 24.0 20.0 6.7 1.0 3.2 0.2	Russell 3000 LB Universal/LB Long G/C MSCI AC World Ex-US (Net) Real Estate Wilshire Resi Full Cap Russell 3000 + 3% (1 Qtr arrears) LB Bellweather 3Mth T-Bill

	Quarter	Quarter		
Label	Start	End	Percent	Description
Policy Index (cont.)				·

The current PERS policy index is listed in the table on the left. PERS instituted separate floating policy indexes for their defined benefit and health care plans in January 2005. Listed below are conditions that apply to the movement of the defined benefit policy index:

- (1) To the extent that actual real estate investments are below the long run target, the difference will be carried in global bonds.
- (2) To the extent that actual private equity investments are below the long run target, the difference will be carried in U.S. equities.
- (3) Real estate custom benchmark are calculated at 90% NCRIEF minus 100 bps annually plus 10% Wilshire RESI minus 20 bps annually.

Health Care Plan Quarter Ending 6/30/2008

ı	Quarter	Quarter		1
Label	Start	End	Percent	Description
	Dec-04	Jun-05	47.5	Description Russell 3000
Policy Index	Dec-04	Jun-05	22.0	Lehman Universal
			22.0	
			4.0	MSCI ACWI Ex-US (Net)
				Wilshire Resi Full Cap
			2.5 2.0	Lehman US Tips
			2.0	Lehman 1-3 Yr Gov't
	Jun-05	Dec-05	42.5	Russell 3000
			20.0	Lehman Universal
			20.0	MSCI ACWI Ex-US (Net)
			4.2	Wilshire Resi Full Cap
			7.5	Lehman US Tips
			5.8	Lehman 1-3 Yr Gov't
	Dec-05	Jun-06	37.5	Russell 3000
			18.0	Lehman Universal
			18.0	MSCI ACWI Ex-US (Net)
			4.5	Wilshire Resi Full Cap
			12.5	Lehman US Tips
			9.5	Lehman 1-3 Yr Gov't
	Jun-06	Dec-06	32.5	Russell 3000
			16.0	Lehman Universal
			16.0	MSCI ACWI Ex-US (Net)
			4.8	Wilshire Resi Full Cap
			17.5	Lehman US Tips
			13.2	Lehman 1-3 Yr Gov't

	Quarter	Quarter		
Label	Start	End	Percent	Description
Policy Index	Dec-06	Dec-07	30.0	Russell 3000
			15.0	Lehman Universal
			15.0	MSCI ACWI Ex-US (Net)
			5.0	Wilshire Resi Full Cap
			20.0	Lehman US Tips
			15.0	Lehman 1-3 Yr Gov't
	Dec-07	Jun-08	29.6	Russell 3000
			14.8	Lehman Universal
			16.4	MSCI ACWI Ex-US (Net)
			4.1	Wilshire Resi Full Cap
			20.8	Lehman US Tips
			14.3	Lehman 1-3 Yr Gov't
1				
1				
1				

PERS Health Care Plans' policy index is listed above. The chart above tracks the fund's change in asset allocation strategy since establishing a policy benchmark for its health care assets over a two year period since inception.

Defined Benefit Plan - Performance Overview Returns for Period Ending June 30, 2008

	2 Qtrs	<u>1 Yr</u>	<u>3 Yrs</u>	<u>5 Yrs</u>	<u>10 Yrs</u>
Total Fund	-6.92	-5.33	7.97	10.35	6.09
Policy Index	-7.12	-5.24	7.52	9.96	6.30
Domestic Equity Domestic Equity Segment Median Wilshire 5000	-10.95	-12.57	4.66	8.38	3.28
	-10.65	-12.33	5.29	9.21	4.50
	-10.92	-12.53	5.02	8.73	3.62
International Equity International Equity Segment Median MSCI EAFE	-9.96	-6.99	16.16	19.42	8.23
	-10.20	-7.71	14.82	18.20	8.40
	-10.96	-10.61	12.84	16.67	5.83
Fixed Income Fixed Income Segment Median LB Aggregate	-1.06	2.81	3.46	3.96	5.75
	0.51	5.91	4.12	4.07	5.74
	1.13	7.12	4.09	3.85	5.68
Long Duration Fixed Income	-1.40	6.03	NA	NA	NA
LB Long-Term Gov't/Credit	7.55	6.6	4.87	5.8	6.95
Cash	1.16	3.89	4.56	3.43	3.78
Real Estate	2.96	9.26	NA	NA	NA
NCREIF	2.17	9.20	14.96	14.72	12.23
Public Real Estate	-3.40	-15.38	4.99	NA	NA
Wilshire Resi Full Cap	-12.44	-17.67	8.33	18.62	10.78
Alternatives	0.39	14.27	20.95	23.99	15.02

Over the past ten-year period, the PERS Defined Benefit Plan trailed its policy index by 20 basis points. Weaker relative performance in domestic equity attributed to the performance shortfall. For the more recent one-year period, the plan underperformed the policy benchmark by 9 basis points.

Health Care Plan - Performance Overview Returns for Period Ending June 30, 2008

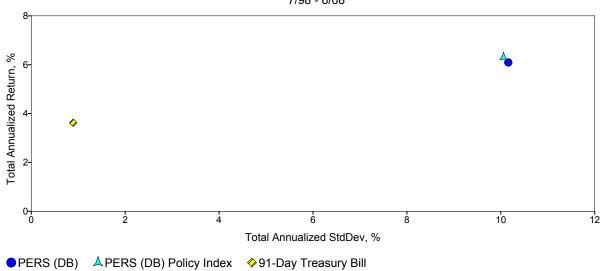
	2 Qtrs	<u>1 Yr</u>	3 Yrs
Total Fund	-4.69	-2.74	7.06
Policy Index	-3.60	-0.79	7.43
Domestic Equity Domestic Equity Segment Median Wilshire 5000	-10.95	-12.57	4.66
	-10.65	-12.33	5.29
	-10.92	-12.53	5.02
International Equity	-9.93	-6.87	16.18
International Equity Segment Median	-10.20	-7.71	14.82
MSCI EAFE	-10.96	-10.61	12.84
Fixed Income	-1.03	2.71	3.43
Fixed Income Segment Median	0.51	5.91	4.12
LB Aggregate	1.13	7.12	4.09
Cash	1.15	3.93	4.63
Public Real Estate	-3.40	-15.37	5.00
Wilshire Resi Full Cap	-3.41	-15.43	4.82
Treasury Inflation Protected Securities	5.02	15.42	5.74
Lehman U.S. TIPS	4.88	15.09	5.59
Short Duration	-3.12	-1.85	1.96
Lehman 1-3 Year Government	2.11	7.07	4.70

For the trailing three-year period, the PERS Health Care Plan underperformed its policy index by 37 basis points. Performance in international equity, Public Real Estate, and Treasury Inflation Protected Securities was better versus their respective benchmarks. For the more recent one-year period, the plan underperformed the policy benchmark by 195 basis points.

PERS (DB) Total Fund Risk Analysis - Last 10 Years Performance Overview For Period Ending 06/30/08

Performance vs. Risk





	Annualized Return, %	Annualized StdDev, %	Ml Stati	PT istics
	Total Total		Alpha, %	Sharpe Ratio
PERS (DB)	6.09	10.16	2.87	0.28
PERS (DB) Policy Index	6.30	10.06	3.07	0.30
91-Day Treasury Bill	3.63	0.89	0.00	NA

The graph above shows that PERS (DB) underperformed the return of its policy index for the ten-year period by 21 basis points.

Defined Benefit Plan - Asset Allocation Actual vs. Benchmark December 31, 2007

Asset Class	Asset Allocation	Benchmark	Benchmark Weighting	Difference	
Domestic Equity	43.9%	Russell 3000	45.6%	-1.7%	
Fixed Income	23.3%	PERS Custom Index	25.2%	-1.9%	
Intl. Equity	20.9%	MSCI AC World ex US	20.0%	0.9%	
Opportunistic Equity	0.2%	-	0.1%	0.1%	
Real Estate	6.7%	PERS Custom Index	5.8%	0.9%	
REITS	0.8%	Wilshire Resi full cap	1.0%	-0.2%	
Alternative Investments	3.2%	Russell 3000 + 3% (1 Qtr arrears)	2.3%	0.9%	
Short Term	1.0%	LB Bellweather 3 Month T-Bill	0.0%	1.0%	
June 30, 2008					

Asset Class	Asset Allocation	Benchmark	Benchmark Weighting	Difference
Domestic Equity	42.4%	Russell 3000	44.9%	-2.5%
Fixed Income	24.3%	PERS Custom Index	24.0%	0.3%
Intl. Equity	19.3%	MSCI AC World ex US	20.0%	-0.7%
Opportunistic Equity	0.3%		0.1%	0.2%
Real Estate	7.7%	PERS Custom Index	6.7%	1.0%
REITS	1.0%	Wilshire Resi full cap	1.0%	0.0%
Alternative Investments	3.8%	Russell 3000 + 3% (1 Qtr arrears)	3.2%	0.6%
Short Term	1.2%	LB Bellweather 3 Month T-Bill	0.0%	1.2%

As of the end of the second quarter, the PERS Defined Benefit Plan is overweight in fixed income, opportunistic equity, real estate, alternatiove investments and cash, while being underweight in domestic and international equity.

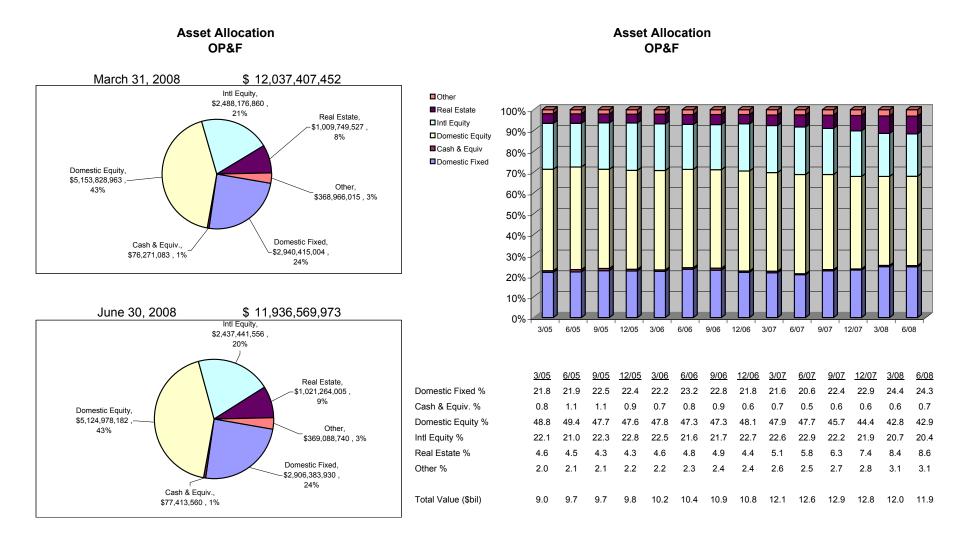
Health Care Plan - Asset Allocation Actual vs. Benchmark December 31, 2007

Asset Class	Asset Allocation	Benchmark	Benchmark Weighting	Difference	
Domestic Equity	29.2%	Russell 3000	30.0%	-0.8%	
Fixed Income	14.8%	Lehman Universal	15.0%	-0.2%	
Intl. Equity	16.4%	MSCI AC World ex US	15.0%	1.4%	
REITS	4.2%	Wilshire Resi full cap	5.0%	-0.8%	
TIPS	20.8%	LB U.S. Tips	20.0%	0.8%	
Short Duration Bonds	14.3%	LB 1-3 Yr Gov't	15.0%	-0.7%	
HC Cash	0.4%	91 Day T-Bill	0.0%	0.4%	
June 30, 2008					

Asset Class	Asset Allocation	Benchmark	Benchmark Weighting	Difference
Domestic Equity	27.8%	Russell 3000	30.0%	-2.2%
Fixed Income	9.7%	Lehman Universal	15.0%	-5.3%
Intl. Equity	22.6%	MSCI AC World ex US	15.0%	7.6%
REITS	5.6%	Wilshire Resi full cap	5.0%	0.6%
TIPS	21.0%	LB U.S. Tips	20.0%	1.0%
Short Duration Bonds	12.3%	LB 1-3 Yr Gov't	15.0%	-2.7%
HC Cash	1.0%	91 Day T-Bill	0.0%	1.0%

As of the end of the second quarter, the PERS Health Care Plan is overweight in international equity, REITS, TIPS, and cash while being underweight in domestic equity, fixed income, and short duration bonds.

Police & Fire Pension Fund



This is the first page devoted to the analysis of the Ohio Police & Fire Pension Fund's asset allocation. The chart on the left displays the fund's asset allocation over the first two quarters of 2008. The chart on the right tracks the quarterly asset allocation of the fund over the last fourteen quarters.

Police & Fire Pension Fund

Quarter Ending 6/30/2008

	Quarter	Quarter		
Label	Start	End	Percent	Description
Policy Index	Mar-94	Sep-97	41.0	Wilshire 5000
			39.0	LB Aggregate
			10.0	MSCI EAFE (Net)
			9.0	Wilshire RE Funds
			1.0	S&P 500 + 5%
	Dec-97	Mar-01	41.0	Wilshire 5000
			35.0	LB Aggregate
			10.0	MSCI EAFE (Net)
			8.0	Wilshire RE Funds
			5.0	MSCI Em Mkts Free (Gross)
			1.0	S&P 500 + 5%
	Jun-01	Jun-01	41.0	Wilshire 5000
			35.0	LB Aggregate
			10.0	MSCI EAFE (Net)
			8.0	Wilshire RE Funds
			5.0	MSCI Em Mkts Free (Gross)
			1.0	S&P 500 (lagged) + 5%
	Sep-01	Mar-02	46.0	Wilshire 5000
			18.0	LB Aggregate
			17.0	MSCI EAFE (Net)
			8.0	Wilshire RE Funds
			5.0	First Boston High Yield
			3.0	MSCI Em Mkts Free (Gross)
			3.0	Wilshire 5000 (lagged) + 5%

	Quarter	Quarter		
Label	Start	End	Percent	Description
Policy Index (cont.)	Jun-02	Sep-04	48.0	Wilshire 5000
			18.0	LB Aggregate
			17.0	MSCI EAFE (Net)
			8.0	NCREIF
			5.0	First Boston High Yield
			3.0	MSCI Em Mkts Free (Gross)
			1.0	Wilshire 5000 (lagged) + 5%
	Dec-04	Dec-04	46.0	Wilshire 5000
			18.0	LB Aggregate
			17.0	MSCI EAFE (Net)
			8.0	NCREIF
			5.0	First Boston High Yield
			3.0	MSCI Em Mkts Free (Gross)
			3.0	Wilshire 5000 (lagged) + 5%
	Mar-05	Dec-06	46.0	Wilshire 5000
			18.0	LB Aggregate
			20.0	MSCI ACWI ex-U.S. (Net)
			8.0	NCREIF
			5.0	First Boston High Yield
			3.0	Wilshire 5000 (lagged) + 5%

OP&F's custom policy index is listed above. The chart tracks the fund's change in asset allocation strategy over the past thirteen years.

Police & Fire Pension Fund

Quarter Ending 6/30/2008

	Quarter	Quarter		
Label	Start	End	Percent	Description
Policy Index	Mar-07	Dec-07	46.0	Wilshire 5000
			18.0	LB Aggregate
			20.0	MSCI ACWI ex-U.S. (Net)
			8.0	NCREIF
			5.0	First Boston High Yield
			3.0	Wilshire 5000 (lagged) + 3%
	Dec-07	Jun-08	46.0	Wilshire 5000
			18.0	LB Aggregate
			20.0	MSCI ACWI ex-U.S. (Net)
			8.0	NCREIF
			5.0	First Boston High Yield
			3.0	Wilshire 5000 (lagged) + 3%

OP&F's custom policy index is listed above. The chart tracks the fund's change in asset allocation strategy over the past thirteen years. The current policy index is listed in the table on the left.

Police & Fire Pension Fund

Performance Overview
Returns for Period Ending June 30, 2008

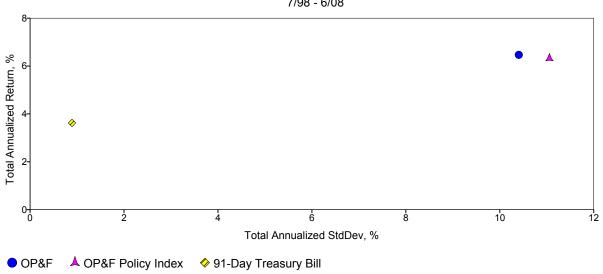
	2 Qtrs	<u>1 Yr</u>	<u>3 Yrs</u>	<u>5 Yrs</u>	<u>10 Yrs</u>
Total Fund	-5.91	-4.18	8.96	11.20	6.47
Policy Index	-7.09	-5.44	7.98	10.55	6.32
Domestic Equity Domestic Equity Segment Median Wilshire 5000	-10.05	-12.42	5.05	9.04	4.16
	-10.65	-12.33	5.29	9.21	4.50
	-10.92	-12.53	5.02	8.73	3.62
International Equity International Equity Segment Median MSCI EAFE	-10.72	-5.38	17.08	19.72	7.61
	-10.20	-7.71	14.82	18.20	8.40
	-10.96	-10.61	12.84	16.67	5.83
Fixed Income	1.63	6.38	5.27	5.41	6.73
Fixed Income Segment Median	0.51	5.91	4.12	4.07	5.74
LB Aggregate	1.13	7.12	4.09	3.85	5.68
Cash	1.18	3.62	4.26	3.18	3.67
Real Estate	5.65	12.85	20.11	19.88	14.92
NCREIF	2.17	9.20	14.96	14.72	12.23
Alternatives	5.95	21.31	22.62	17.03	9.23

For the trailing ten-year period, the fund outperformed its policy index by 15 basis points. Stronger relative performance in domestic equity, international equity, fixed income and real estate continued to contribute to overall performance. In addition, OP&F outperformed its policy index by 126 basis points for the more recent one-year period.

OP&F Total Fund Risk Analysis - Last 10 Years Performance Overview For Period Ending 06/30/08

Performance vs. Risk





	Annualized Return, %	Annualized StdDev, %	Ml Stati	PT stics
	Total	Total	Alpha, %	Sharpe Ratio
OP&F	6.47	10.40	3.26	0.31
OP&F Policy Index	6.32	11.06	3.19	0.28
91-Day Treasury Bill	3.63	0.89	0.00	NA

The graph above shows that OP&F outperformed the return of its policy index for the ten-year period by 15 basis points.

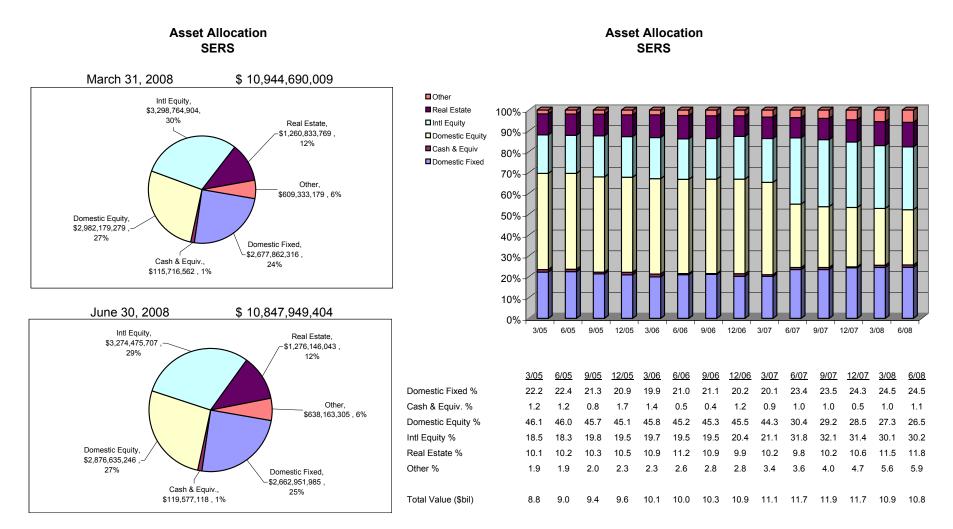
Police & Fire Pension Fund

Asset Allocation Actual vs. Benchmark December 31, 2007

Asset Class	Asset Allocation	Benchmark	Benchmark Weighting	Difference
Domestic Equity	44.4%	Wilshire 5000	46.0%	-1.6%
Fixed Income	22.9%	Lehman Aggregate	23.0%	-0.1%
Intl. Equity Comp.	21.9%	MSCI ACWI ex- U.S. (Net)	20.0%	1.9%
Real Estate	7.4%	NCREIF	8.0%	-0.6%
Alternative Investments	2.8%	Wilshire 5000 Lagged + 3%	3.0%	-0.2%
Short Term	0.6%	3 Month T-Bill	0.0%	0.6%
		June 30, 2008		

Asset Class	Asset Allocation	Benchmark	Benchmark Weighting	Difference
Domestic Equity	42.9%	Wilshire 5000	46.0%	-3.1%
Fixed Income	24.3%	Lehman Aggregate	23.0%	1.3%
Intl. Equity Comp.	20.4%	MSCI ACWI ex- U.S. (Net)	20.0%	0.4%
Real Estate	8.6%	NCREIF	8.0%	0.6%
Alternative Investments	3.1%	Wilshire 5000 Lagged + 3%	3.0%	0.1%
Short Term	0.6%	3 Month T-Bill	0.0%	0.6%

As of the end of the second quarter, OP&F is overweight in fixed income, international equity, real estate, alternative investments and cash, while being underweight in domestic equity.



This is the first page devoted to the analysis of the Ohio School Employees Retirement System's asset allocation. The chart on the left displays the fund's asset allocation over the first two quarters of 2008. The chart on the right tracks the quarterly asset allocation of the fund over the last fourteen quarters.

Quarter Ending 6/30/2008

	Quarter	Quarter	1	I
Label	Quarter Start	Quarter End	Percent	Description
Policy Index	Mar-94	Sep-94	45.0	Standard & Poors 500
Policy Index	IVIAI-94	Sep-94	28.0	ML Domestic Master Bond Idx
			10.0	MSCI EAFE (Net)
			10.0	NCREIF Classic Ppty Idx (1 Qtr arrear)
			5.0	Citigroup 30 Day T-Bill
			2.0	S&P 500 + 5%
	Dec-94	Dec-94	45.0	Standard & Poors 500
			28.0	ML Domestic Master Bond Idx
			10.0	MSCI EAFE 50% Hedged
			10.0	NCREIF Classic Ppty Idx (1 Qtr arrear)
			5.0	Citigroup 30 Day T-Bill
			2.0	S&P 500 + 5%
	Mar-95	Jun-95	45.0	Russell 3000
			28.0	ML Domestic Master Bond Idx
			10.0	MSCI EAFE 50% Hedged
			10.0	NCREIF Classic Ppty Idx (1 Qtr arrear)
			5.0	Citigroup 30 Day T-Bill
			2.0	S&P 500 + 5%
	Sep-95	Mar-97	45.0	Russell 3000
	-		28.0	LB Aggregate
			10.0	MSCI EAFE 50% Hedged
			10.0	NCREIF Classic Ppty Idx (1 Qtr arrear)
			5.0	Citigroup 30 Day T-Bill
			2.0	S&P 500 + 5%
	Jun-97	Jun-97	45.0	Russell 3000
			28.0	LB Aggregate
			15.0	MSCI EAFE 50% Hedged
			10.0	NCREIF Classic Ppty Idx (1 Qtr arrear)
			1.0	Citigroup 30 Day T-Bill
			1.0	S&P 500 + 5%
			1.0	333 370
		l		

	Quarter	Quarter		
Label	Start	End	Percent	Description
Policy Index (cont.)	Sep-97	Jun-99	45.0	Russell 3000
			28.0	LB Aggregate
			14.5	MSCI EAFE 50% Hedged
			0.5	MSCI Em Mkts Free
			10.0	NCREIF
			1.0	Citigroup 30 Day T-Bill
			1.0	S&P 500 +5%
	Sep-99	Dec-99	45.0	Russell 3000
			28.0	LB Aggregate
			14.0	MSCI EAFE 50% Hedged
			1.0	MSCI Em Mkts Free
			10.0	NCREIF
			1.0	Citigroup 30 Day T-Bill
			1.0	S&P 500 +5%
	Mar-00	Jun-01	48.0	Russell 3000
			23.0	LB Aggregate
			16.0	MSCI ACWI ex US (Developed - 50% Hdg)
			10.0	NCREIF
			1.0	S&P 500 +5%
			2.0	Citigroup 30 Day T-Bill
	Sep-01	Jun-02	47.0	Russell 3000
			23.0	LB Aggregate
			16.0	MSCI ACWI ex US (Developed - 50% Hdg)
			10.0	NCREIF
			2.0	Private Equity (0% return arrears switch)
			2.0	Citigroup 30 Day T-Bill
	Sep-02	Mar-07	46.0	Russell 3000
			23.0	LB Aggregate
			16.0	MSCI ACWI ex US (Developed - 50% Hdg)
			10.0	80% NCREIF (arrears), 20% NAREIT
			3.0	S&P 500 (1Qtr arrears) + 3%
			2.0	Citigroup 30 Day T-Bill

SERS' custom policy index is listed above. The charts track the fund's change in asset allocation strategy over the past thirteen years.

Quarter Ending 6/30/2008

	Quarter	Quarter		
Label	Start	End	Percent	Description
Policy Index (cont.)	Mar-07*	Dec-07	30.0	Russell 3000
, , ,			24.0	LB Aggregate
			30.0	MSCI ACWI ex US (Developed - 50% Hdg)
			10.0	80% NCREIF (arrears), 20% NAREIT
			5.0	S&P 500 (1Qtr arrears) + 3%
			1.0	Citigroup 30 Day T-Bill
	Dec-07	Jun-08	29.8	Russell 3000
			24.0	LB Aggregate
			29.8	MSCI ACWI ex US (Developed - 50% Hdg)
			10.0	80% NCREIF (arrears), 20% NAREIT
			5.4	S&P 500 (1Qtr arrears) + 3%
			1.0	Citigroup 30 Day T-Bill

^{*}The current SERS custom policy index calcuation was implemented on May 31, 2007.

SERS' custom policy index is listed above. The charts track the fund's change in asset allocation strategy over the past thirteen years. The current policy index is listed in the table on the left.

Performance Overview
Returns for Period Ending June 30, 2008

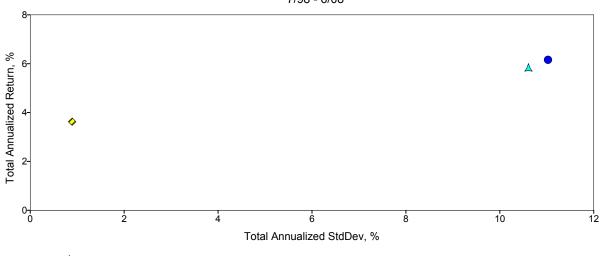
	2 Qtrs	<u>1 Yr</u>	<u>3 Yrs</u>	<u>5 Yrs</u>	<u>10 Yrs</u>
Total Fund	-6.60	-5.25	8.54	10.49	6.16
Policy Index	-6.83	-4.60	7.71	9.86	5.80
Domestic Equity Domestic Equity Segment Median Wilshire 5000	-12.27	-15.10	3.76	7.77	3.21
	-10.65	-12.33	5.29	9.21	4.50
	-10.92	-12.53	5.02	8.73	3.62
International Equity International Equity Segment Median MSCI EAFE	-10.68	-9.77	16.47	19.19	7.48
	-10.20	-7.71	14.82	18.20	8.40
	-10.96	-10.61	12.84	16.67	5.83
Fixed Income	-0.96	3.20	3.36	3.65	5.79
Fixed Income Segment Median	0.51	5.91	4.12	4.07	5.74
LB Aggregate	1.13	7.12	4.09	3.85	5.68
Cash	1.75	4.39	4.76	3.51	4.10
Real Estate	0.62	8.32	14.31	15.65	11.60
NCREIF	2.17	9.20	14.96	14.72	12.23
Alternatives	7.83	18.95	21.55	15.99	10.04

For the trailing ten-year period, the fund outperformed its policy index by 36 basis points, which is due to stronger relative performance in international equity and fixed income. The more recent one-year period shows that the fund underperformed its policy index by 65 basis points.

SERS Total Fund Risk Analysis - Last 10 Years Performance Overview For Period Ending 06/30/08

Performance vs. Risk





SERS	▲ SERS Policy Index	91-Day Treasury Bill
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	Annualized Return, %	Annualized StdDev, %	M Stati	PT stics
	Total	Total	Alpha, %	Sharpe Ratio
SERS	6.16	11.03	3.03	0.27
SERS Policy Index	5.80	10.61	2.64	0.25
91-Day Treasury Bill	3.63	0.89	0.00	NA

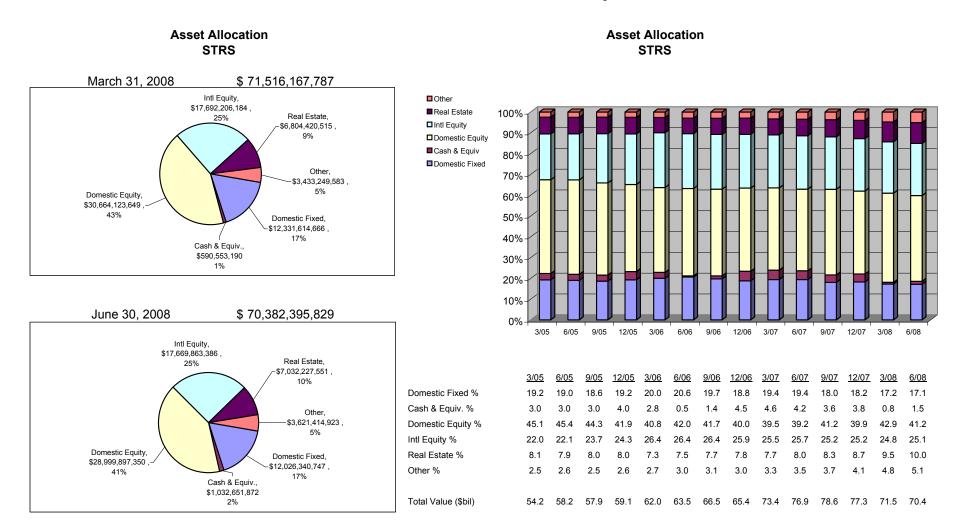
The graph above shows that SERS outperformed the return of its policy index for the ten-year period by 36 basis points.

Asset Allocation Actual vs. Benchmark December 31, 2007

Asset Class	Asset Allocation	Benchmark	Benchmark Weighting	Difference		
Domestic Equity	28.5%	Russell 3000	29.0%	-0.5%		
Fixed Income	24.3%	LB Aggregate	24.0%	0.3%		
Intl. Equity	31.4%	MSCI ACWI ex US (Developed - 50% Hdg)	29.0%	2.4%		
Real Estate	10.6%	Custom RE (1 Qtr arrears)	10.0%	0.6%		
Alternative Investments	4.7%	S&P 500 (1 Qtr arrears) + 3%	7.0%	-2.3%		
Short Term	0.5%	Citigroup 30 Day T-Bill	1.0%	-0.5%		
June 30, 2008						

Asset Class	Asset Allocation	Benchmark	Benchmark Weighting	Difference
Domestic Equity	26.5%	Russell 3000	30.3%	-3.8%
Fixed Income	24.5%	LB Aggregate	24.0%	0.5%
Intl. Equity	30.2%	MSCI ACWI ex US (Developed - 50% Hdg)	30.3%	-0.1%
Real Estate	11.8%	Custom RE (1 Qtr arrears)	10.0%	1.8%
Alternative Investments	5.9%	S&P 500 (1 Qtr arrears) + 3%	4.4%	1.5%
Short Term	1.1%	Citigroup 30 Day T-Bill	1.0%	0.1%

As of the end of the second quarter, SERS is overweight in fixed income, real estate, alternative investments, and cash, while being underweight in domestic and international equity.



This is the first page devoted to the analysis of the Ohio State Teachers Retirement System's asset allocation. The chart on the left displays the fund's asset allocation over the first two quarters of 2008. The chart on the right tracks the quarterly asset allocation of the fund over the last fourteen quarters.

Quarter Ending 6/30/2008

			1	1
	Quarter	Quarter		
Label	Start	End	Percent	Description
Policy Index	Mar-94	Dec-94	40.0	Standard & Poors 500
			45.0	Lehman Govt./Corp.
			9.0	STRS NCREIF Hybrid
			3.0	MSCI EAFE (Net)
			3.0	91-Day Treasury Bill
	Mar-95	Dec-95	46.0	Standard & Poors 500
			35.0	LB Aggregate
			9.0	STRS NCREIF Hybrid
			6.0	MSCI EAFE (Net)
			2.0	MSCI Em Mkts Free (Gross)
			2.0	91-Day Treasury Bill
	Mar-96	Dec-96	45.0	Standard & Poors 500
			35.0	LB Aggregate
			9.0	STRS NCREIF Hybrid
			6.8	MSCI EAFE (Net)
			2.3	MSCI Em Mkts Free (Gross)
			2.0	91-Day Treasury Bill
				, ,
	Mar-97	Jun-97	45.0	Standard & Poors 500
			34.0	LB Aggregate
			9.0	STRS NCREIF Hybrid
			6.0	MSCI EAFE (Net)
			4.0	MSCI Em Mkts Free (Gross)
			2.0	91-Day Treasury Bill
				', ', '

	Quarter	Quarter		
Label	Start	End	Percent	Description
Policy Index (Cont.)	Sep-97	Dec-97	45.0	Standard & Poors 500
			24.0	LB Aggregate
			12.0	MSCI EAFE (Net)
			9.0	STRS NCREIF Hybrid
			8.0	MSCI Em Mkts Free (Gross)
			2.0	91-Day Treasury Bill
	Mar-98	Sep-98	45.0	S&P 1500
			24.0	LB Aggregate
			12.0	MSCI EAFE 50% Hedged
			9.0	STRS NCREIF Hybrid
			8.0	MSCI Em Mkts Free (Gross)
			2.0	91-Day Treasury Bill
	Dec-98	Sep-00	45.0	S&P 1500
			24.0	LB Aggregate
			14.0	MSCI EAFE 50% Hedged
			9.0	STRS NCREIF Hybrid
			6.0	MSCI Em Mkts Free (Gross)
			2.0	91-Day Treasury Bill
	Dec-00	Jun-02	45.0	S&P 1500
			25.0	Lehman Universal
			15.0	MSCI EAFE 50% Hedged
			9.0	STRS NCREIF Hybrid
			5.0	MSCI Em Mkts Free (Gross)
			1.0	91-Day Treasury Bill
·				

STRS' custom policy index is listed above and on the following page. Charts track the fund's change in asset allocation strategy over the past twelve and a half years.

Quarter Ending 6/30/2008

	Quarter	Quarter		1
Label	Start	End	Percent	Description
Policy Index (cont.)	Sep-02	Dec-02	45.0	S&P 1500
			23.0	Lehman Universal
			15.0	MSCI EAFE 50% Hedged
			9.0	STRS NCREIF Hybrid
			5.0	MSCI Em Mkts Free (Gross)
			2.0	Alt. Investment Actual Return
			1.0	91-Day Treasury Bill
	Mar-03	Jun-03	45.0	S&P/Russell Hybrid
			23.0	Lehman Universal
			15.0	MSCI EAFE 50% Hedged
			9.0	STRS NCREIF Hybrid
			5.0	MSCI Em Mkts Free (Gross)
			2.0	Alt. Investment Actual Return
			1.0	91-Day Treasury Bill
	Sep-03	Dec-05	45.0	Russell 3000
			23.0	Lehman Universal
			15.0	MSCI World ex US 50% Hedged
			9.0	STRS NCREIF Hybrid
			5.0	MSCI Em Mkts Free (Gross)
			2.0	Alt. Investment Actual Return
			1.0	91-Day Treasury Bill
	Mar-06	Jun-06	42.0	Russell 3000
			21.0	Lehman Universal
			20.0	MSCI World ex US 50% Hedged
			9.0	STRS NCREIF Hybrid
			5.0	MSCI Em Mkts Free (Gross)
			3.0	Alt. Investment Actual Return
			0.0	91-Day Treasury Bill

Quarter	Quarter		
Start	End	Percent	Description
Sep-06	Jun-07	42.0	Russell 3000
		20.5	Lehman Universal
		20.0	MSCI World ex US 50% Hedged
		9.5	STRS NCREIF Hybrid
		5.0	MSCI Em Mkts Free (Gross)
		3.0	Alt. Investment Actual Return
		0.0	91-Day Treasury Bill
Sep-07	Sep-07	42.0	Russell 3000
		20.0	Lehman Universal
		20.0	MSCI World ex US 50% Hedged
		10.0	STRS NCREIF Hybrid
		5.0	MSCI Em Mkts Free (Gross)
		3.0	Alt. Investment Actual Return
		0.0	91-Day Treasury Bill
Dec-07	Jun-08	42.0	Russell 3000
		20.0	Lehman Universal
		20.0	MSCI World ex US 50% Hedged
		9.5	STRS NCREIF Hybrid
		5.0	MSCI Em Mkts Free (Gross)
		3.5	Alt. Investment Actual Return
		0.0	91-Day Treasury Bill
	Start Sep-06 Sep-07	Start End Sep-06 Jun-07 Sep-07 Sep-07	Start End Percent Sep-06 Jun-07 42.0 20.5 20.0 9.5 5.0 3.0 0.0 Sep-07 42.0 20.0 20.0 10.0 5.0 3.0 0.0 20.0 Dec-07 Jun-08 42.0 20.0 20.0 20.0 9.5 5.0 3.5

The current STRS policy index is listed above on the right.

Performance Overview Returns for Period Ending June 30, 2008

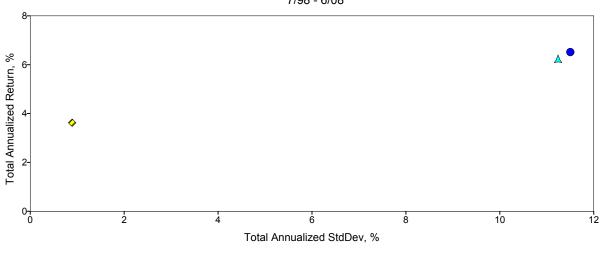
	2 Qtrs	<u>1 Yr</u>	<u>3 Yrs</u>	<u>5 Yrs</u>	<u>10 Yrs</u>
Total Fund	-7.28	-5.44	9.09	11.40	6.52
Policy Index	-7.21	-5.79	8.11	10.37	6.19
Domestic Equity Domestic Equity Segment Median Wilshire 5000	-13.01	-15.60	4.07	7.88	2.91
	-10.65	-12.33	5.29	9.21	4.50
	-1.81	5.62	9.16	14.01	6.34
International Equity International Equity Segment Median MSCI EAFE	-11.02	-9.11	15.38	19.37	8.93
	-10.20	-7.71	-7.71	18.20	8.40
	-10.96	-10.61	12.84	16.67	5.83
Fixed Income	1.18	6.82	4.61	4.55	6.29
Fixed Income Segment Median	0.51	5.91	5.91	4.07	5.74
LB Aggregate	1.13	7.12	4.09	3.85	5.68
Cash	1.42	3.97	4.49	3.34	3.78
Real Estate	2.65	18.93	24.23	22.38	15.64
NCREIF	2.17	9.20	14.96	14.72	12.23
Alternatives	3.08	9.34	17.72	18.82	7.77

Over the trailing ten-year period, the fund outperformed its policy index by 33 basis points. Strong relative outperformance in international equity, fixed income and real estate contributed to overall returns. Over the more recent one-year period, the fund exceeded its policy index by 35 basis points.

STRS Total Fund Risk Analysis - Last 10 Years Performance Overview For Period Ending 06/30/08

Performance vs. Risk





STRS	▲ STRS Policy Index	91-Day Treasury Bill
------	---------------------	----------------------

	Annualized Return, %	Annualized StdDev, %	M Stati	PT stics
	Total	Total	Alpha, %	Sharpe Ratio
STRS	6.52	11.50	3.42	0.29
STRS Policy Index	6.19	11.24	3.08	0.27
91-Day Treasury Bill	3.63	0.89	0.00	NA

The graph above shows that STRS outperformed the return of its policy index for the ten-year period by 33 basis points.

Asset Allocation Actual vs. Benchmark December 31, 2007

Asset Class	Asset Allocation	Benchmark	Benchmark Weighting	Difference
Domestic Equity	39.9%	Russell 3000	42.0%	-2.1%
Fixed Income	18.2%	Lehman Universal	20.0%	-1.8%
Intl. Equity	25.2%	Intl. Hybrid Benchmark	25.0%	0.2%
Real Estate	8.7%	NCREIF Hybrid	9.5%	-0.8%
Alternative Investments	4.1%	Alt. Inv. Actual Return	3.5%	0.6%
Short Term	3.8%	3 Month T-Bill	0.0%	3.8%
		June 30, 2008		

Asset Class	Asset Allocation	Benchmark	Benchmark Weighting	Difference
Domestic Equity	41.2%	Russell 3000	42.0%	-0.8%
Fixed Income	17.1%	Lehman Universal	20.0%	-2.9%
Intl. Equity	25.1%	Intl. Hybrid Benchmark	25.0%	0.1%
Real Estate	10.0%	NCREIF Hybrid	9.5%	0.5%
Alternative Investments	5.1%	Alt. Inv. Actual Return	3.5%	1.6%
Short Term	1.5%	3 Month T-Bill	0.0%	1.5%

As of the end of the second quarter, STRS was overweight in international equity, real estate, alternative investments and cash, while being underweight in domestic equity and fixed income.

Appendix 1.1: Performance Attribution

The following exhibits provide an analysis of the impact of asset allocation and/or active management for the past nine years. Attribution analysis indicates whether the sources of returns relative to the policy benchmark (asset allocation or manager selection/performance) are consistent with the plans' investment policies and objectives. The three factors plotted for each quarter are the asset allocation effect, manager selection effect, and total attribution. Allocation attribution indicates whether decisions to be under or overweight an asset class versus policy targets added or detracted from performance relative to the policy benchmark. It is calculated by the following formula:

Allocation Attribution= [(portfolio weight - index weight) * (index rate of return of the sector - total weighted index rate of return)]

The next step is to determine the value added or subtracted from active management (value added by a manager(s) over the respective index). Selection Attribution is calculated using the following formula:

Selection Attribution: [portfolio weight * (portfolio rate of return - index rate of return)]

Finally, the Total Attribution is calculated by summing the Allocation and Selection attribution. The result is the total value added or subtracted by the combination of asset allocation and active management. The lines on the graphs represent the quarterly attribution data. The table below each graph provides a one-, three-, five- and nine-year annualized representation of the attribution of each fund.

^{*} It is important to note that attribution on the allocation, selection, and total basis may vary from the individual plan data due to a difference in methodology used in the calculation of the data. The underlying plan data is calculated using daily/monthly flows and valuations, while EAI data is calculated using quarterly performance provided by the individual plans which may cause variations in the overall attribution results.

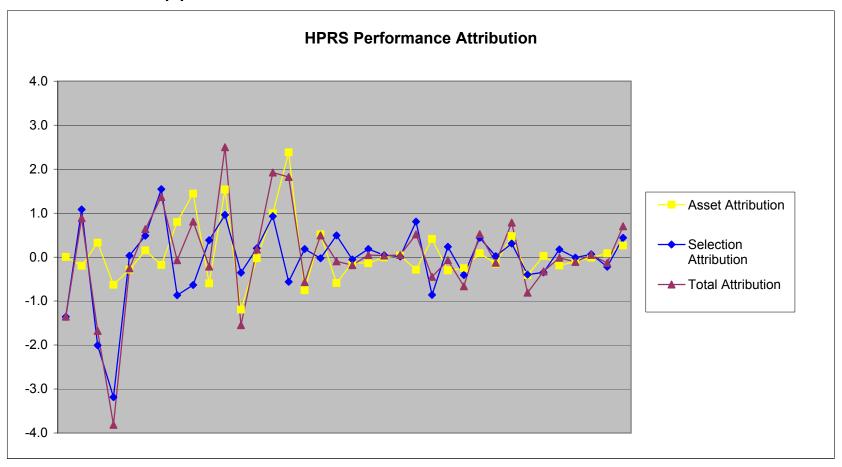
Appendix 1.2: Performance Attribution

The total attribution analysis below indicates that all of the five plans produced positive results over the nine-year period due to a combination of favorable asset allocation and/or active manager selection/performance. PERS was the top performer of the five plans from an attribution standpoint followed by OP&F, SERS, STRS, and HPRS.

Breakdown of Attribution Results - Last 9 Years

	Asset Allocation Attribution	Active Manager Attribution	Total Attribution
HPRS	0.37	-0.17	0.20
OP&F	0.08	1.07	1.15
PERS	1.03	0.36	1.40
SERS	0.51	0.37	0.88
STRS	0.01	0.64	0.65

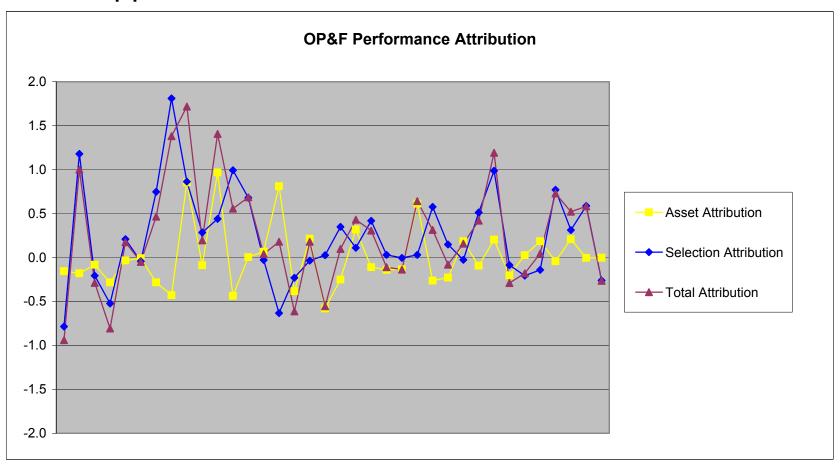
Appendix 1.3: ORSC Performance Attribution



Annualized Attribution	One Year	Three Years	Five Years	Nine Years
Allocation Attribution	0.47	0.06	-0.10	0.37
Selection Attribution	0.86	0.37	0.21	-0.17
Total Attribution	1.33	0.43	0.11	0.20

The chart above shows that HPRS has added the most value through asset allocation over the past nine years - decisions to be under or overweight an asset class versus policy targets. HPRS posted positive total attribution results for all time periods..

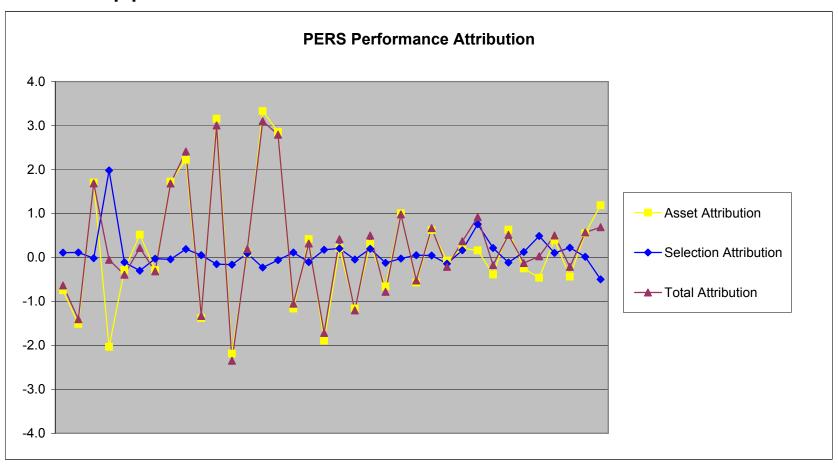
Appendix 1.4: ORSC Performance Attribution



Annualized Attribution	One Year	Three Years	Five Years	Nine Years
Allocation Attribution	0.15	0.20	0.08	0.08
Selection Attribution	1.54	1.22	1.06	1.07
Total Attribution	1.69	1.43	1.15	1.15

The chart above shows that OP&F has added the most value through active manager selection/performance over the past nine years. OP&F posted positive total attribution results for all time periods, primarily due to active manager selection/performance.

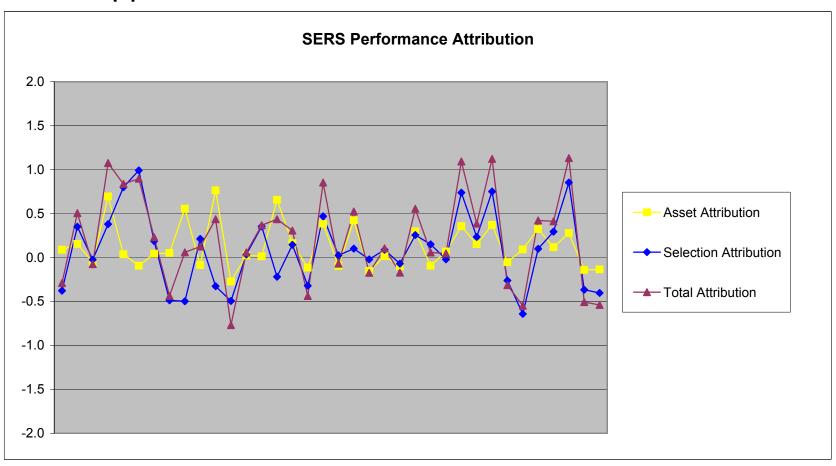
Appendix 1.5: ORSC Performance Attribution



One Year	Three Years	Five Years	Nine Years
3.26	1.02	0.54	1.03
-0.27	0.56	0.37	0.36
3.00	1.60	0.92	1.40
	3.26 -0.27	3.26 1.02 -0.27 0.56	3.26 1.02 0.54 -0.27 0.56 0.37

The chart above shows that PERS has added the most value through asset allocation over the past nine years - decisions to be overweight or underweight an asset class versus policy targets. PERS posted positive total attribution results for all time periods, primarily due to asset allocation.

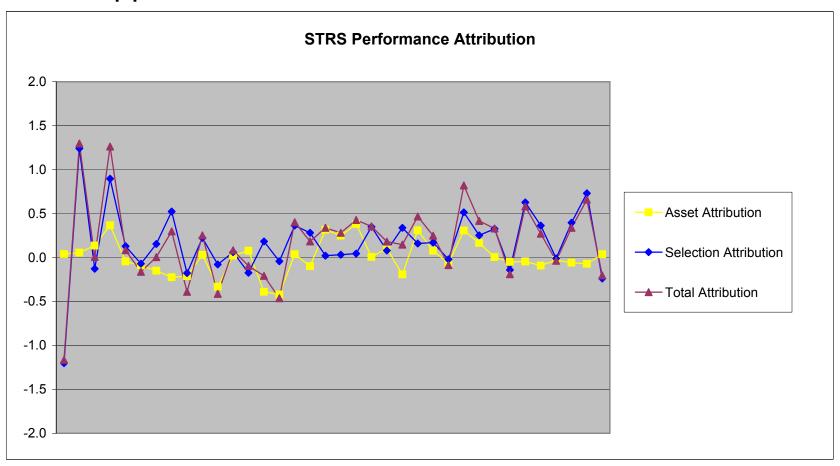
Appendix 1.6: ORSC Performance Attribution



Annualized Attribution	One Year	Three Years	Five Years	Nine Years
Allocation Attribution	-0.15	0.50	0.37	0.51
Selection Attribution	-0.45	0.54	0.42	0.37
Total Attribution	-0.60	1.03	0.79	0.88

The chart above shows that SERS has added value through asset allocation and active manager selection/performance over the past nine years. SERS also posted positive total attribution results for most time periods.

Appendix 1.7: ORSC Performance Attribution



Annualized Attribution	One Year	Three Years	Five Years	Nine Years
Allocation Attribution	0.05	0.08	0.22	0.01
Selection Attribution	0.08	0.81	0.71	0.64
Total Attribution	0.14	0.89	0.94	0.65

The chart above shows that STRS has added the most value through active manager selection/performance over the past nine years. STRS posted positive total attribution results for all time periods, primarily due to active manager selection/performance.

Appendix 2.1 - Ohio Retirement Systems Asset Allocation Comparison Analysis

Comparison of Asset Allocation versus Mellon All Public Total Fund Universe

				Private / Public Real		
	U.S. Equity	Fixed Income	Non-U.S. Equity	Estate	Alternatives	Cash
PERS (DB) - ACTUAL	42.39%	24.34%	19.29%	8.74%	3.81%	1.15%
PERS (DB) - TARGET	43.00%	24.00%	20.00%	8.00%	5.00%	0.00%
STRS - ACTUAL	41.20%	17.09%	25.11%	9.99%	5.15%	1.47%
STRS - TARGET	42.00%	20.00%	25.00%	9.50%	3.50%	0.00%
OP&F - ACTUAL	42.94%	24.31%	20.42%	8.56%	3.09%	0.65%
OP&F - TARGET	46.00%	23.00%	20.00%	8.00%	3.00%	0.00%
SERS - ACTUAL	26.52%	24.55%	30.18%	11.76%	5.88%	1.10%
SERS - TARGET	29.00%	24.00%	29.00%	10.00%	7.00%	1.00%
HPRS - ACTUAL	45.93%	16.89%	16.44%	1.48%	18.54%	0.72%
HPRS - TARGET	50.00%	15.00%	15.00%	5.00%	15.00%	0.00%
Maximum	98.27%	80.22%	65.70%	17.10%	35.59%	59.39%
5th	62.27%	46.66%	29.11%	12.85%	19.90%	32.44%
25th	50.26%	33.21%	21.47%	8.27%	9.74%	6.01%
Median	36.71%	27.18%	18.57%	5.76%	5.80%	3.83%
75th	28.14%	23.33%	15.12%	2.82%	2.48%	2.39%
95th	15.49%	14.66%	0.00%	0.00%	1.15%	0.62%
Minimum	10.28%	2.17%	0.00%	0.00%	0.00%	0.00%

Note:

Report is based upon plans that have submitted asset class data greater than 70% of the total market value.

Forty-nine institutions represented the universe run.

PERS (DB) fixed income allocation is comprised of 14.54% in fixed income, 0.07% in stable value and 9.73% in long duration fixed income. The real estate allocation is comprised of 7.74% private real estate and 1.00% REITS.

Additionally, an allocation of 0.28% to opportunistic equity was not included. The target allocation does not include an allocation of 0.2% to opportunistic equity.

Source: Mellon Trust Universe Quarter Ended June 30, 2008.

Appendix 2.2 - Ohio Retirement Systems Asset Allocation Comparison Analysis

Comparison of Asset Allocation versus Mellon Billion Dollar Public Fund Universe

	Private / Public Real					
	U.S. Equity	Fixed Income	Non-U.S. Equity	Estate	Alternatives	Cash
PERS (DB) - ACTUAL	42.39%	24.34%	19.29%	8.74%	3.81%	1.15%
PERS (DB) - TARGET	43.00%	24.00%	20.00%	8.00%	5.00%	0.00%
STRS - ACTUAL	41.20%	17.09%	25.11%	9.99%	5.15%	1.47%
STRS - TARGET	42.00%	20.00%	25.00%	9.50%	3.50%	0.00%
OP&F - ACTUAL	42.94%	24.31%	20.42%	8.56%	3.09%	0.65%
DP&F - TARGET	46.00%	23.00%	20.00%	8.00%	3.00%	0.00%
SERS - ACTUAL	26.52%	24.55%	30.18%	11.76%	5.88%	1.10%
SERS - TARGET	29.00%	24.00%	29.00%	10.00%	7.00%	1.00%
HPRS - ACTUAL	45.93%	16.89%	16.44%	1.48%	18.54%	0.72%
HPRS - TARGET	50.00%	15.00%	15.00%	5.00%	15.00%	0.00%
Maximum	77.07%	80.22%	65.70%	17.10%	35.59%	59.39%
5th	61.76%	63.84%	30.39%	13.33%	21.75%	18.60%
25th	47.35%	30.16%	22.91%	7.90%	10.27%	6.55%
Median	34.81%	26.68%	20.16%	5.88%	8.39%	3.82%
75th	27.36%	22.86%	17.62%	4.07%	4.92%	2.50%
95th	14.83%	14.73%	12.93%	0.00%	2.34%	1.99%
Minimum	10.28%	2.17%	6.98%	0.00%	1.11%	0.81%

Note:

Report is based upon plans that have submitted asset class data greater than 70% of the total market value.

Forty-two institutions represented the universe run.

HPRS total assets for period ended June 30, 2008 was \$764,793,745.

PERS (DB) fixed income allocation is comprised of 14.54% in fixed income, 0.07% in stable value and 9.73% in long duration fixed income. The real estate allocation is comprised of 7.74% private real estate and 1.00% REITS. Additionally, an allocation of 0.28% to opportunistic equity was not included. The target allocation does not include an allocation of 0.2% to opportunistic equity.

Source: Mellon Trust Universe Quarter Ended June 30, 2008.

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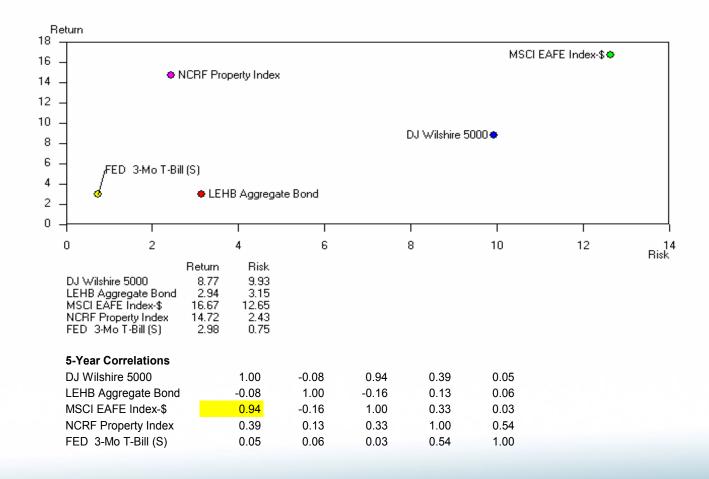
Summary of Supplemental Exhibits

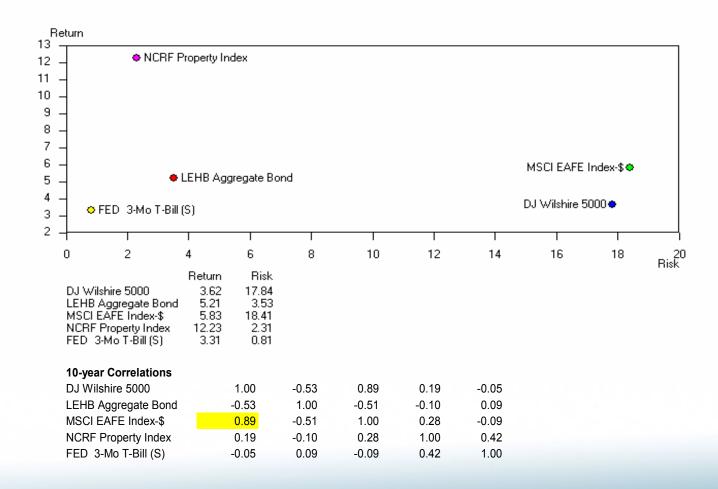
- The graphs and tables on the following pages show the risk/return, and correlation characteristics of five major asset classes in which the Ohio Statewide pension plans invest in. The purpose of these exhibits is to show the risk/return characteristics of these major asset classes over long-term holding periods.
- Annualized returns are shown on the vertical axis, and risk (as measured by annual standard deviation) is shown on the horizontal axis. Representative indices were used as proxies for the five major asset classes: DJ Wilshire 5000 (US equity), LB Aggregate (fixed income), MSCI EAFE (developed international equity), NCREIF (real estate), and 3-Mo T-Bill (cash equivalents). A glossary of investment terms is provided at the end of the exhibits.

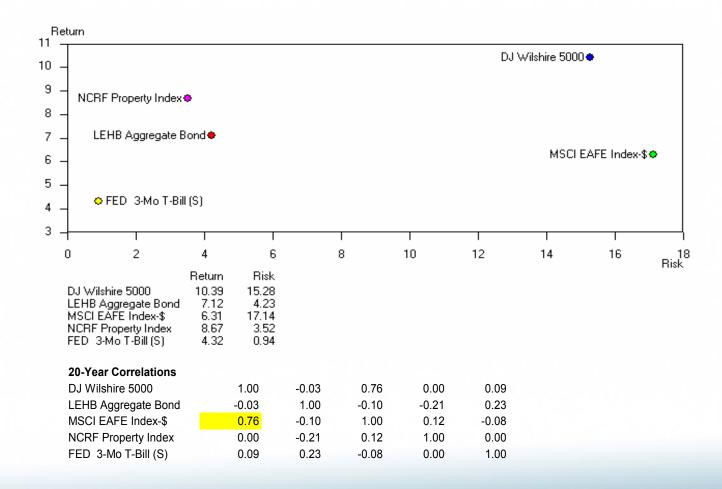
General Observations

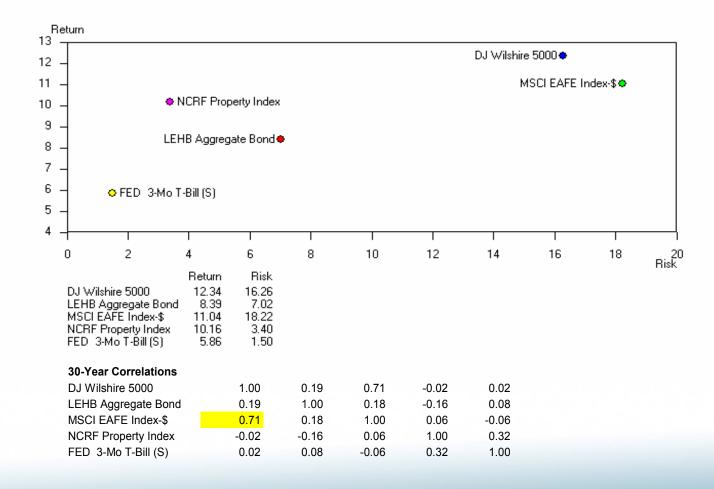
- Equity and real estate returns have outperformed the Systems' actuarial rate of return assumptions over 20 and 30-year time
 horizons. Bonds also outperformed the Systems' actuarial rate of return over the past 30-year time horizon during a period of secular
 declines in interest rates.
- The magnitude of the decline in equity markets YTD 2008 also took place during 2000-2003 (see page 7). This period of poor performance was followed by positive equity returns from 2003-2007.
- Bonds and real estate have exhibited a relatively low correlation to U.S. and international equities over all time periods shown in these exhibits and, therefore, have provided strong diversification benefits to reduce total portfolio risk.
- The correlations of U.S. and international equity markets have increased in more recent time periods (i.e., the diversification benefits
 of investing in developed international markets has declined).
- Accordingly, many institutional investors are seeking diversification opportunities in alternative investments including, but not limited to: hedge funds, private equity, and energy/natural resources (oil, gas, timber, commodities, and managed futures).

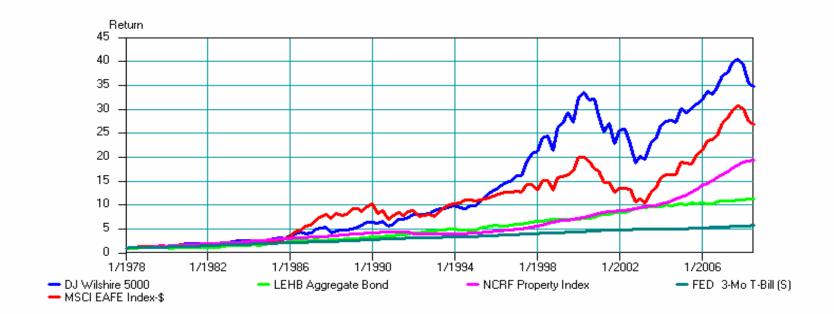












Annual Returns of Major Asset Classes

				NCRF	
Year	Wilshire 5000	LB Aggregate	MSCI EAFE	Property Index	3-Mo T-Bill
1978	9.27	1.40	32.66	16.11	7.18
1979	25.35	1.92	4.68	20.46	10.06
1980	33.67	2.71	22.64	18.09	11.40
1981	-3.75	6.26	-2.30	16.62	14.01
1982	18.71	32.64	-1.83	9.43	10.59
1983	23.46	8.37	23.67	13.13	8.61
1984	3.05	15.15	7.38	13.84	9.52
1985	32.56	22.11	56.15	11.24	7.48
1986	16.10	15.29	69.45	8.30	5.98
1987	2.27	2.75	24.62	8.00	5.77
1988	17.94	7.89	28.26	9.62	6.66
1989	29.17	14.53	10.55	7.77	8.11
1990	-6.18	8.93	-23.44	2.30	7.49
1991	34.21	16.00	12.28	-5.59	5.37
1992	8.97	7.40	-12.30	-4.26	3.43
1993	11.28	9.75	32.56	1.38	3.00
1994	-0.06	-2.92	7.77	6.39	4.24
1995	36.45	18.48	11.21	7.54	5.49
1996	21.22	3.61	6.05	10.31	5.01
1997	31.29	9.59	1.78	13.91	5.06
1998	23.43	8.67	20.00	16.24	4.78
1999	23.56	-0.84	26.96	11.36	4.64
2000	-10.87	11.63	-14.17	12.24	5.82
2001	-10.95	8.44	-21.44	7.28	3.38
2002	-20.86	10.26	-15.94	6.74	1.60
2003	31.68	4.11	38.58	8.99	1.01
2004	12.60	4.34	20.25	14.48	1.37
2005	6.32	2.43	13.54	20.06	3.15
2006	15.87	4.33	26.34	16.59	4.73
2007	5.74	2.28	11.17	15.84	4.35

Glossary

Active management - An investment management approach that seeks to outperform a relevant benchmark through tactical asset allocation, and/or security selection.

Active risk - The standard deviation (tracking error) of an investment managers returns relative to their respective benchmark. A manager with active risk of 5% would be expected to produce returns +/- 5% in 2 out of 3 years.

Alpha - For purposes of our analysis, alpha is the excess return over a specified benchmark.

Annualized return - The average (technically geometric average) return that if earned over the period covered that would produce the same total compound rate of return that the actual set of fluctuating returns produced.

Asset-liability modeling - A technique which involves making projections of the future financial position of a pension plan with regard to future assets and liabilities in order to gauge the suitability of various funding and investment policies.

Benchmark - A yardstick (e.g., S&P 500) against which the performance of a fund or manager can be compared for the purpose of determining investment success.

Beta - For purposes of our analysis, beta is the risk associated with the exposure to an asset class invested on a passive basis.

CAPM - The <u>Capital Asset Pricing Model</u> is an economic model for relating the prices among different asset classes by addressing the risk reward relationship between investments. It was developed by Dr. William Sharp at Stanford in the 1960's. Dr. Sharp was awarded the Nobel Prize in 1991 for his work on CAPM.

Correlation - The measure of how closely two series of numbers, events, patterns of returns, etc. move together. If the two patterns move together perfectly, then the correlation is 1.00. If they move completely independently, then the correlation is 0.00.

Dividend Discount Model (DDM) - A procedure for valuing the price of a stock by using predicted dividends and discounting them back to present value. If the value obtained from the DDM is higher than the present share price, the stock is considered to be undervalued.

Duration - A measure of the sensitivity of portfolio of bonds to interest rate changes. For example, if the duration of a bond is 5, then for every 1% increase in interest rates, the bond portfolio will <u>decline</u> in value by 5%. Conversely, if interest rates decline by 1% then the bond portfolio will <u>increase</u> in value by 5%.

Equity risk premium - The expected excess return of equities over the risk free rate (typically cash or a bonds).



Glossary (2)

Expected return - A measure of the value of an investment, taking account of its current price and the estimated future cash flow to the investor. The higher the current price in relation to future estimated cash flow, the lower the expected return; the lower the price in relation to future cash flow, the higher the expected return.

Expected out-performance - See alpha.

Financial efficiency - A financially efficient portfolio will maximize the return relative to the amount of risk taken to achieve the returns. For purpose of our analysis, a financially efficient portfolio will have a higher information ratio (excess return divided by the tracking error).

Governance - The organizational structure, composition and procedures by which plan fiduciaries (or any other governing body) carries out their responsibilities.

Immunization - The process of balancing a portfolio of assets against a given set of liabilities by matching the duration of the assets to the duration of the liabilities.

Indexing - An investment management approach that seeks to replicate the performance of a specific index (e.g., S&P 500). A portfolio may be indexed either by buying every security in the index (full replication), or by buying fewer securities that accurately reflect the characteristics of the index (sampling).

Information ratio - The excess return of the portfolio relative to an appropriate benchmark divided by the standard deviation of the excess return. It is a measure of the relative rate of return per one relative unit of risk.

Liability-driven investing (LDI) - An approach that seeks to control short-term financial risks (funded status, contributions, pension expense, and balance sheet) while seeking to generate an investment return above the market-based growth rate of the liabilities to reduce the long-term cost of the plan.

Liability proxy - A simplified portfolio of a pension plan's liability that seeks to reflect the characteristics (primarily duration and term structure) of the plan's liabilities.

Mean reversion - A theory that there exists some underlying central "correct" valuation for securities prices. From time to time prices will depart from that value, but ultimately most drift back to that central or mean level. There is no statistical evidence to support the existence of such an effect.

Real return / real yield - The rate of return in excess of the inflation rate.

Glossary (3)

Risk budget - The term commonly used to describe the maximum level of risk (tracking error) that a plan sponsor is willing to take relative to the plan's liabilities.

Optimization - Constructing a portfolio in such a way that return is maximized for a given risk level, or risk is minimized for a given expected return level.

Skewness - A statistical term describing the distribution of potential returns. Positive skewness implies that the frequency of returns is more positive than negative. Negative skewness implies the opposite. Returns from equities typically have positive skewness. A normal distribution curve (neither positive or negative skewness) is typically used for modeling purposes.

Sharpe ratio – a measure of return per unit of risk. It measures a portfolio's risk-adjusted return by subtracting the risk-free rate of return from the portfolio's return, divided by the portfolio's standard deviation of returns.

Standard deviation - A statistical term referring to the probable spread of observations around the average or expected value. In financial contexts standard deviation is used as measure of risk. That is, as the standard deviation increases, the confidence one has in being able to predict the outcome decreases.

Strategic asset allocation - A long-term portfolio management approach that seeks to maintain a predetermined asset mix of equities and fixed income.

Stochastic - A process involving a randomly determined sequence of observations each of which is considered as a sample of one element from a probability distribution.

Tactical asset allocation (TAA) - A short-term portfolio management approach that seeks to take advantage of undervalued or overvalued asset classes or style groups (i.e., value v. growth, U.S. vs. international, etc.) by overweighting or underweighting relative to a target allocation.

Term structure - A yield curve displaying the relationship between the interest rate of a security and their term to maturity. Term structures are continually changing and though the yield curve is normal, it can be flat or inverted.

Tracking error - A measure of the standard deviation of a portfolio's excess return relative to the performance of an appropriate benchmark.

Value-at-risk - A technique used to estimate the probability of portfolio losses (in dollar terms) based on statistical stress testing. That is, calculations are performed to determine how sensitive the portfolio (or funded status) is to interest rate changes and/or market corrections.

Yield curve - A graph showing the relationship between the time to maturity and the yield of a bond with that maturity.

