

January 24, 2008

MEMORANDUM

TO: Senator John Arthur Smith, LFC Chair  
Legislative Finance Committee Members

FROM: Norton Francis, LFC Chief Economist; Michelle Aubel, LFC Fiscal Analyst

**SUBJECT: LFC Report of Investment Performance – FY2008 First Quarter**

Attached please find the latest quarterly investment report that covers the first quarter of FY08 performance of the State Investment Council, the Education Retirement Board, and the Public Employees Retirement Board. The data shown in the report is as of September 30, 2007.

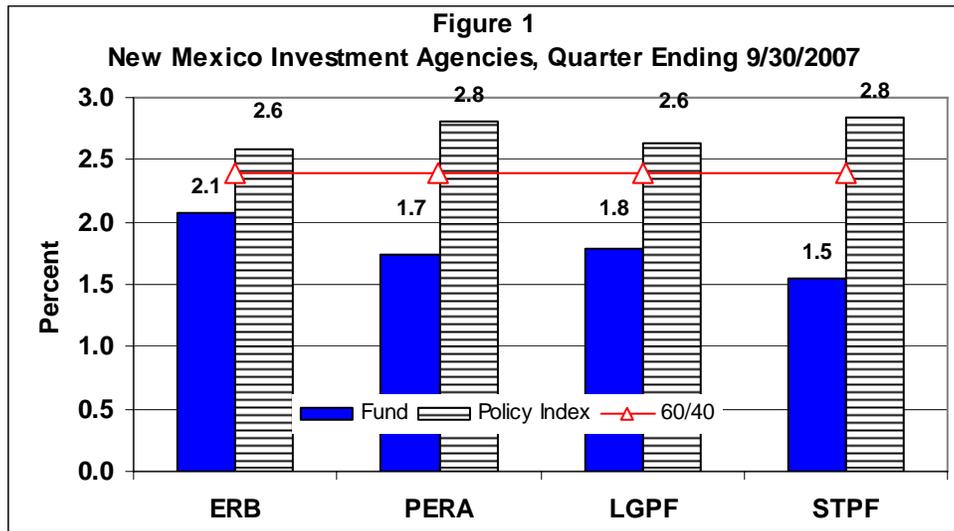
**Highlights:**

- All of the funds missed quarterly benchmarks, returning 2.1 percent or less for the quarter.
- Total asset value is \$38.6 billion, up a net \$0.5 billion from the previous quarter.
- International equity markets continue to be the star performers among asset classes but are well off their lofty heights of 2006.

In reviewing performance among the funds, it is important to keep in mind that the funds have different asset allocations, different strategies and different restrictions. All of the funds have entered alternative investment asset classes -- which include private equity, hedge funds, real assets and real estate -- but the State Investment Council (SIC) has been allocating to these asset classes longer than the Public Employees Retirement Association (PERA) and the Educational Retirement Board (ERB), so it has higher allocations and more mature investments. SIC also has a constitutional restriction on the amount it can invest in the equity asset class that has outperformed all of the other classes. Asset allocation is discussed in more detail on page 4.

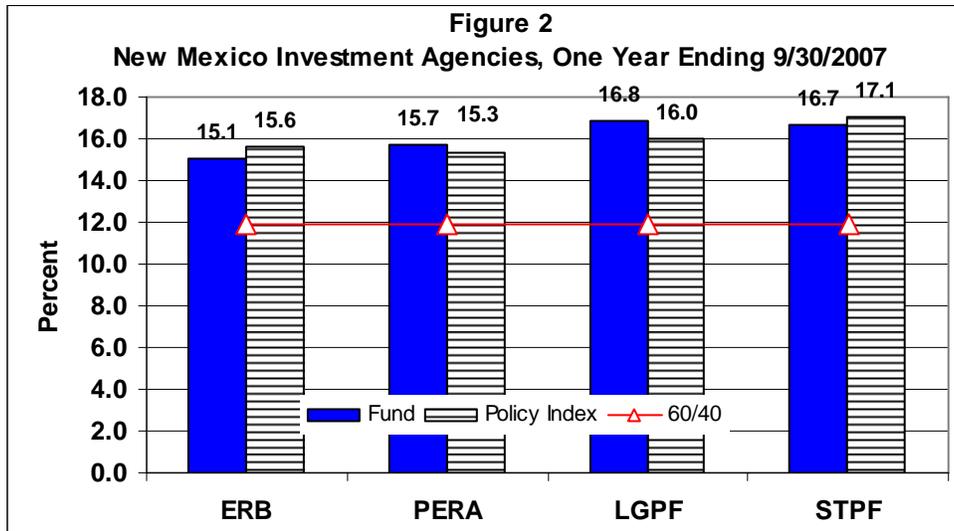
**SUMMARY OF FUND PERFORMANCE**

Quarter Ending September 30, 2007. Investment returns for the first quarter slowed significantly from the prior quarter. As shown in Figure 1, total fund investment returns ranged between 1.5 percent and 2.1 percent for the quarter, lagging even the 60 percent stock/40 percent bond index. The Land Grant Permanent Fund (LGPF) and the Severance Tax Permanent Fund (STPF), both managed by the SIC, returned 1.8 percent and 1.5 percent, respectively. PERA reported 1.7 percent while ERB reported 2.1 percent. All of the funds lagged their benchmarks, with STPF underperforming by 129 basis points (bp).<sup>1</sup> The “60/40” benchmark, a traditional conservative asset allocation that only includes domestic equity (60 percent) and fixed income (40 percent), returned 2.4 percent for the quarter, right between the funds and their benchmarks.

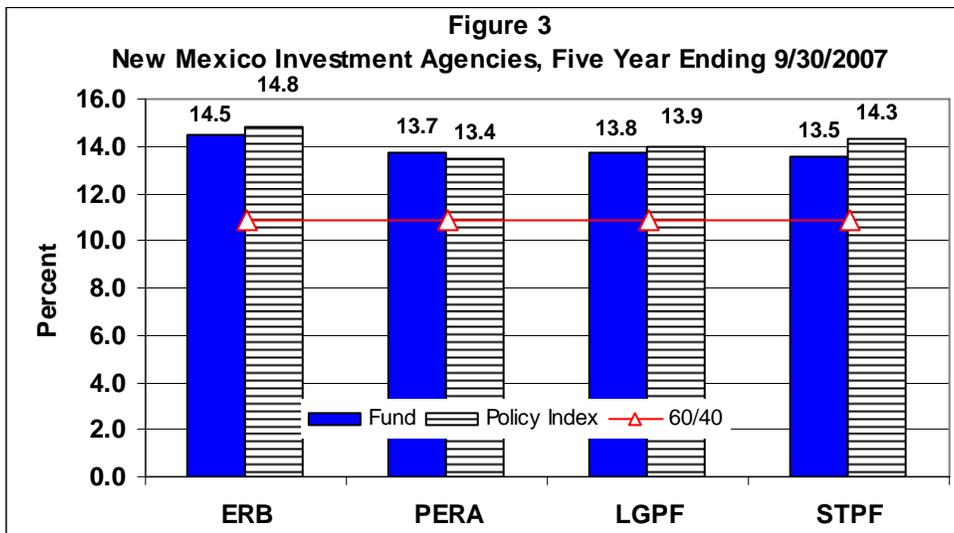


Year Ending September 30, 2007. For the one-year period ending September 30, 2007, the investment program returns all exceeded 15.1 percent, with LGPF having the highest return of 16.8 percent. LGPF and PERA were the only funds to outperform their benchmarks: LGPF by 79 bp and PERA by 40 bp. STPF was just 36 bp behind its benchmark and ERB missed its benchmark by 53 bp. The returns were all higher than a straight 60/40 stock & bond portfolio, which returned 11.9 percent for the 12 month period.

<sup>1</sup> A basis point is 1/100 of a percent and is used for comparing percentages. For example, the difference between 5 percent and 6 percent is 100 basis points.



Five Years Ending September 30, 2007. For the five years ending September 30, 2007, only PERA beat its benchmark, which it did by 28 bp. LGPF slightly underperformed its benchmark return with a 13.8 percent performance while STPF returned 13.5 percent, 76 bp short of its benchmark. ERB missed its five-year benchmark by 34 bp. All funds should show sustained improvement in the five-year return as poor-performing quarters through 2001-2003 drop off. Over this longer term all of the funds performed better than if they had been in a 60/40 index, which returned 10.9 percent.



### FUND ASSET VALUES

Table 1 presents changes in asset values as of September 30, 2007. The quarterly and annual asset value changes in the table reflect both contributions and disbursements to each of these funds in addition to investment returns. The total value of the funds on September 30, 2007 was \$38.6 billion, up approximately \$549 million from total fund value of \$38.1 billion as of June 30, 2007. Total fund value of all funds was up \$5.8 billion from the September 30, 2006, value of \$32.9 billion. PERA's fund balance

## Quarterly Investment Report, 1<sup>st</sup> Quarter - Fiscal year 2008

includes the assets of all retirement funds at PERA, except those held at the State Treasurer's Office (STO) for operational purposes.

**Table 1**  
**Current Asset Values (millions)**  
**For Quarter and Year Ending September 30, 2007**

<b>Quarterly</b>	<b>ERB</b>	<b>PERA*</b>	<b>LGPF</b>	<b>STPF</b>	<b>TOTAL</b>
Current Asset Values (9/30/07)	\$ 9,586	\$ 13,488	\$ 10,845	\$ 4,729	\$ 38,649
Value Change (Previous Quarter)	147	205	172	25	549
Percent Change	1.6%	1.5%	1.6%	0.5%	1.4%

<b>Annual</b>	<b>ERB</b>	<b>PERA*</b>	<b>LGPF</b>	<b>STPF</b>	<b>TOTAL</b>
Ending Asset Values (9/30/06)	\$ 8,468	\$ 11,311	\$ 9,099	\$ 4,015	\$ 32,893
Value Change (Year Ago)	1,118.2	2,177.1	1,746.4	714.3	5,755.9
Percent Change	13.2%	19.2%	19.2%	17.8%	17.5%

\*Excludes assets held at STO

### **ECONOMIC AND FINANCIAL MARKET ENVIRONMENT**

The economy shifted in the quarter as the subprime mortgage crisis, high oil prices, and a drastic slowdown in the housing markets caused forecasters to rethink their short term estimates. Global Insight started the quarter in July with the headline "Momentum Regained" and reported that the economy had hit bottom and was bouncing back. The same company ended the quarter in its October forecast reporting a slowdown in consumer spending and a worsening in the housing market. Growth in the quarter as measured by gross domestic product was an outstanding 4.9 percent but that was seen widely as a last gasp in the economy driven largely by strong exports thanks to the historically weak dollar. Growth in the last quarter of 2007 is expected to be below 1.5 percent.

Turbulence would be the most descriptive term to define the equity markets in the first quarter of FY08. The Dow Jones Industrial Average (DJIA) fluctuated in a 1,000 point interval from 13,000 to 14,000, ending the quarter up 3.6 percent. What seemed like a free fall in August was reversed by a half point cut in the federal reserve rate. Technology and energy stocks were the best performers. Financials lost significantly as major bank after major bank announced subprime exposure, but as of the end of the quarter major write-downs had not yet occurred. International equities continued to perform well, but with a return of 14.52 percent, they have come down from the incredible returns of past quarters. Exposure to the U.S. subprime mortgages are showing up all around the world and may affect future international equity performance.

The bond market performed well despite a credit crunch as central banks around the world pumped money into the banking system to preserve liquidity. The Lehman Brothers Aggregate (LB Agg) bond index returned a solid 2.84 percent beating the Standard & Poors 500 (SP500) which returned only 2.03 percent. The SP500 is still over 9 percent year to date versus just 3.85 percent for LB Agg.

### **ASSET ALLOCATION AND RETURN BY ASSET CLASS**

The SIC funds have shifted some assets from fixed income to alternatives and international equity, remaining within target ranges but pushing the constitutional limit of

Quarterly Investment Report, 1<sup>st</sup> Quarter - Fiscal year 2008

65 percent equities. PERA is still slightly above its target allocations in domestic and international equities and under the target in fixed income while it transitions its assets to include alternatives. ERB also has been moving assets out of the fixed income class and equities into alternatives, such as hedge funds, and has adjusted its target allocations correspondingly. Last quarter, ERB had a significant allocation to cash equivalents that has been invested in the alternative asset classes. Hedge funds are currently above the target for ERB.

**Table 2**  
**Fund Asset Allocation Detail, Quarter Ending September 30, 2007**

	ERB		PERA		LGPF		STPF	
	Actual	Target	Actual	Target*	Actual	Target	Actual	Target
<b>Total US Equity</b>	<b>38.8%</b>	<b>40.0%</b>	<b>41.6%</b>	<b>40.0%</b>	<b>52.7%</b>	<b>53.0%</b>	<b>51.9%</b>	<b>53.0%</b>
<b>International Equity</b>	<b>20.6%</b>	<b>18.0%</b>	<b>29.0%</b>	<b>25.0%</b>	<b>12.1%</b>	<b>10.0%</b>	<b>13.6%</b>	<b>10.0%</b>
<b>Total Fixed Income</b>	<b>26.4%</b>	<b>27.0%</b>	<b>25.9%</b>	<b>32.0%</b>	<b>17.0%</b>	<b>18.0%</b>	<b>12.0%</b>	<b>12.0%</b>
<b>Total Alternatives</b>	<b>13.8%</b>	<b>15.0%</b>	<b>3.4%</b>	<b>3.0%</b>	<b>17.6%</b>	<b>19.0%</b>	<b>21.8%</b>	<b>25.0%</b>
Private Equity	0.8%	5.0%	0.3%		5.7%	6.0%	9.3%	12.0%
Hedge Funds	7.9%	5.0%	3.1%		9.2%	10.0%	9.1%	10.0%
Real Estate/Real Assets	5.1%	5.0%	0.1%		2.6%	3.0%	3.4%	3.0%
<b>Cash Equivalents</b>	<b>0.3%</b>	<b>0.0%</b>	<b>0.1%</b>	<b>0.0%</b>	<b>0.5%</b>	<b>0.0%</b>	<b>0.8%</b>	<b>0.0%</b>
<b>Total Fund %</b>	<b>100%</b>							

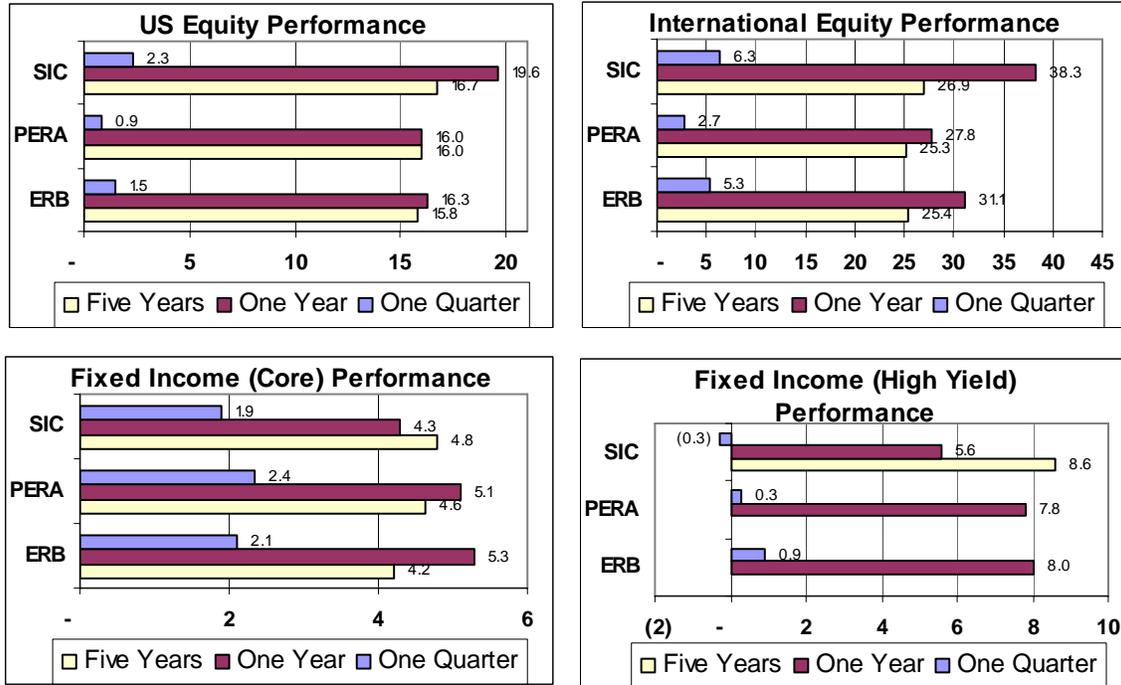
*\*While the PERA long term targets for alternatives are similar to ERB's, the agency is implementing the full allocation targets over time.*

Asset allocation can have a large impact on overall return. SIC is constitutionally restricted from investing more than 65 percent in total equity, with the added restriction that no more than 15 percent of the portfolio can be invested in any type of international asset.<sup>2</sup> In contrast, PERA has over 70 percent invested in these two asset classes with the highest allocation by far in international equity of all the funds, which has been the strongest performer of the last five years. Further, the STPF has economically-targeted investments that, although represent a small allocation, have economic development goals as well as return goals and, therefore, may produce a slight drag on overall returns. The benchmark for these funds is the 90-day Treasury bill, considered a “risk-free” investment. Although conclusions can not be drawn from a single quarter, all of the funds missed their benchmarks this quarter as hedge funds were hammered.

Figure 4 shows how each fund did in the traditional asset classes: equity and fixed income. While all of the funds have done well, SIC led the way in the equity classes but lagged for fixed income in general. ERB and PERA have done well with the fixed income asset class. SIC has acknowledged that it has not performed in the high yield fixed income asset class and has mostly reallocated that asset class to a new credit and structured finance asset class, which had a negative 15.8 percent return in the quarter.

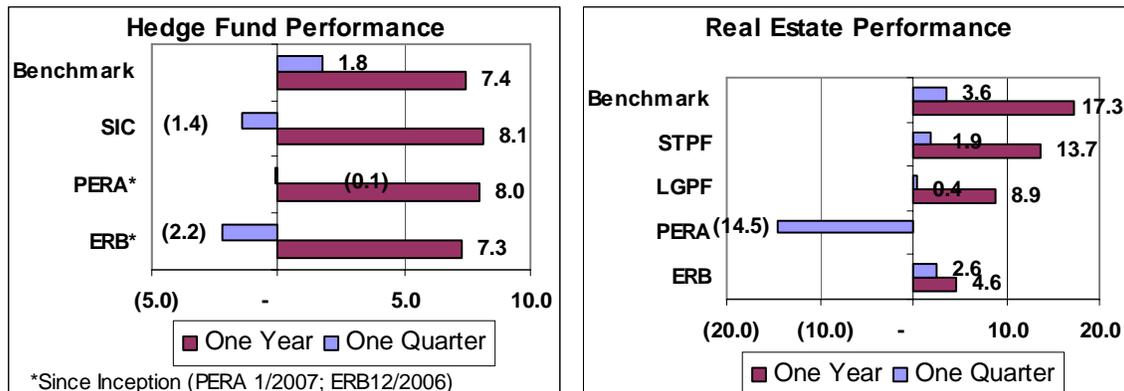
<sup>2</sup> SIC could raise their international equity to 15 percent but then could only invest 50 percent in US Equity and make no more international investments such as an international private equity. Conversely, if SIC wanted to invest 60 percent in US equity, only 5 percent could be invested in international equity.

**Figure 4: Agency investment return by asset class as of 9/30/07**



**Alternatives.** While it is still premature to draw conclusions from ERB’s and PERA’s investment performance for their alternative portfolios, the following graphs do provide short term snapshots of the preliminary returns for these funds. In particular, hedge funds for all three agencies for the quarter lagged the return for 90-day Treasury Bills plus 200 bp (1.8 percent), which is a common benchmark used for an absolute return portfolio.<sup>3</sup> ERB’s 4.6 percent annual return and 2.6 percent quarterly return in the Real Estate class is due to its REIT portfolio. PERA still does not have a significant investment in real estate and real asset limited partnerships as of September 30, 2007. The one year NCREIF Property index was 17.3 percent.

**Figure 5: Hedge Fund and Real Asset Performance as of 9/30/07**



Note: Benchmark shown is 90-day Treasury bill plus 200 bp for hedge funds and NCREIF property index for real estate.

<sup>3</sup> PERA uses the LIBOR plus 4%, another commonly used benchmark, which returned 2.3 percent for the quarter and 9.6 percent for the year ending 9/30/2007.

### ADDITIONAL DETAIL ON FUND PERFORMANCE FOR QUARTER

Table 3 below shows detailed fund performance for the quarter ending September 30, 2007. For comparison purposes, the table also provides the returns for a set of agreed-upon market benchmarks commonly used for particular asset classes. LGPF and STPF outperformed the US equity benchmarks but missed the fixed income and hedge fund benchmarks. ERB and PERA missed the benchmarks for domestic equities and fixed income.

**Table 3**  
**Fund Performance Detail (Quarter Ending 9/30/2007)**

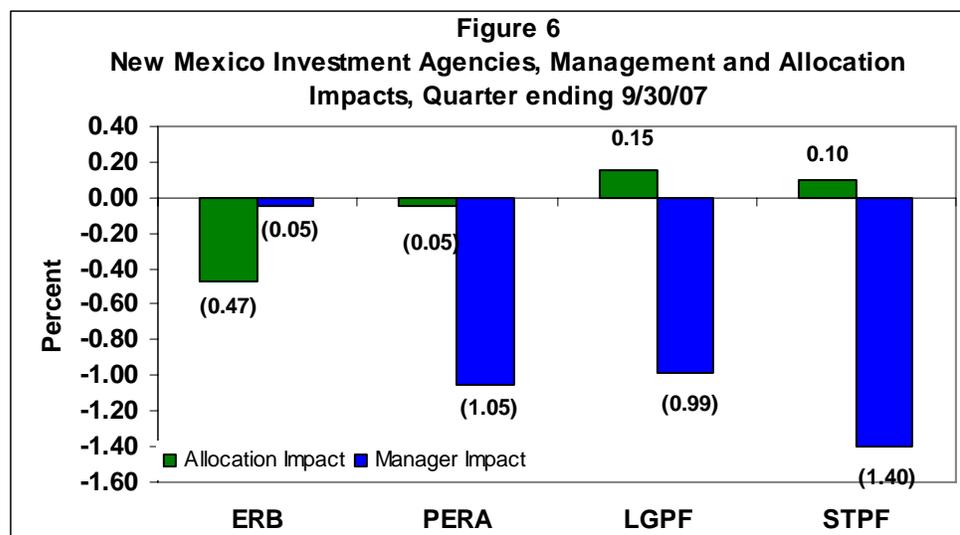
Asset Class	Benchmark**	ERB	PERA	LGPF	STPF
U.S. Equity (S&P 500)	2.0%	1.5%	0.9%	2.3%	2.3%
U.S. Equity (Russell 3000)	1.6%	1.5%	0.9%	2.3%	2.3%
U.S. Equity (Wilshire 5000 Cap Wtd)	1.5%	1.5%	0.9%	2.3%	2.3%
Real Estate Investment Trusts (REITS) (DJ Wilshire REIT)	1.4%	2.6%	n.a.	n.a.	n.a.
U.S. Fixed Income (LB Aggregate)	2.8%	2.1%	2.4%	1.9%	1.9%
U.S. High Yield Bonds (ML HY)	1.0%	0.9%	0.3%	0.2%	0.2%
U.S. High Yield Bonds (Citi HY Cash Pay)	0.6%	0.9%	0.3%	0.2%	0.2%
International Equity (MSCI EAFE Net)	2.2%	5.3%	2.7%	6.3%	6.3%
Emerging Markets Equity (MS EMF)	14.4%	11.7%	15.8%	16.4%	16.4%
Private Equity/Venture Capital (Cambridge Venture Capital)*	6.7%	-1.6%	-3.8%	7.0%	2.3%
Private Equity (Cambridge Private Equity)*	8.1%	-1.6%	-3.8%	7.0%	2.3%
Real Estate (NCREIF)	3.6%	2.6%	-17.6%	0.4%	1.9%
Hedge Funds (90 day T-bill + 200 basis points)	1.8%	-2.2%	-7.0%	-1.4%	-1.4%
<b>Individual Fund Policy Target</b>		2.6%	2.8%	2.6%	2.8%
<b>Total Fund Return</b>		2.1%	1.7%	1.8%	1.5%

\* Performance for private equity is reported on a 3 to 4-month lag

\*\* Benchmarks are for comparison purposes and do not necessarily correlate to the individual fund's policy targets.

### MANAGEMENT PERFORMANCE

The fund performance compared to the internal targets is made up of two primary components: manager impact and asset allocation impact. The manager impact is a measure of how the individual manager's performance compared to the performance of the related benchmark, and the allocation impact is the impact of a portfolio allocation deviating from the target (or policy) allocation.



- For the quarter, PERA was 107 bp below its benchmark, primarily due to manager performance.
- ERB was 51 bp short of its benchmark, primarily due to its allocation. ERB moved aggressively into hedge funds and ended the quarter above its target allocation at a time when the hedge fund performance was poor.
- LGPF missed its benchmark by 84 bp: management selection caused the bulk of the poor performance, subtracting 99 bp while allocation offset 15 bp.
- STPF lagged by 129 bp, with allocation delivering a positive impact that was countered by manager selection, which subtracted 140 bp for the quarter.

Table 4 presents the risk indicators for each fund. The risk profiles of all four funds are in line with each benchmark. PERA has the lowest standard deviation, the deviation from the mean performance or a measure of volatility, and the highest Sharpe Ratio.<sup>4</sup> ERB has the highest volatility and the lowest Sharpe Ratio but still in line with its benchmark. The investment allocation determines the aggregate level of risk a portfolio takes on. The Sharpe ratio is just one indicator of portfolio risk. Additional risk measures will be highlighted in a future report.

**Table 4**  
**Risk Profiles as shown by Standard Deviations, Five Years Ending 9/30/07**

	<b>ERB</b>	<b>PERA</b>	<b>LGPF</b>	<b>STPF</b>
<b>FUND</b>				
Standard Deviation*	7.4	6.2	6.7	6.9
Sharpe Ratio**	1.6	1.7	1.6	1.5
<b>BENCHMARK</b>				
Standard Deviation*	7.7	6.5	6.9	6.9
Sharpe Ratio**	1.5	1.6	1.6	1.7

\* Standard deviation measures the fund's expected variability (deviation) from the expected return

\*\* Sharpe Ratio measures the risk-adjusted performance of a portfolio. The higher the number, the higher the return-to-risk level. Risk free return is 90-Day T-bill.

<sup>4</sup> The Sharpe Ratio is determined by dividing the difference in return of the asset and a “risk-free” asset by the standard deviation. Although all fund advisors reported Sharpe Ratios, LFC recalculated each ratio using the return of the 90 Treasury Bill to ensure consistency.