State of New Mexico
LEGISLATIVE FINANCE COMMITTEE

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March 20, 2017

LFC INVESTMENT REPORT FOR THE QUARTER ENDING DECEMBER 31, 2017

This report details the comparative investment performance of the three investment agencies: the Educational Retirement Board (ERB), the Public Employees Retirement Association (PERA), and the State Investment Council (SIC) which manages the land grant permanent fund (LGPF) and the severance tax permanent fund (STPF). This report derives agency performance and market environment information from the investment performance reports submitted by PERA, ERB, and SIC for the quarter ending December 31, 2017.

INVESTMENT PERFORMANCE HIGHLIGHTS

- In calendar year 2017, the aggregate value of the state's combined investment holdings for the pension and permanent funds grew by nearly $5 billion, or 10.8 percent, to end the quarter at $50.9 billion. ERB and PERA's fund balances grew 10.2 percent and 8.9 percent, respectively, and the aggregate value of the permanent funds managed by SIC grew 12.6 percent.
- One-year returns ranged from 13.9 percent to 15.1 percent. ERB and the permanent funds outperformed their long-term targets for the one-, three-, and five-year periods; and PERA outperformed its long-term target for the one- and five-year periods.
- When compared with peer funds greater than $1 billion on a net-of-fee basis, ERB's and the permanent funds' investment returns ranked above the median for the 10-year period. ERB's fund ranked above the median for the three-year period, and the LGPF ranked above the median for the five-year period. SIC's funds ranked below the median for the quarter, the year, and the three-year periods. PERA's investment returns ranked in the lowest quartile for all but the five-year period, which was near the median.

PERFORMANCE VS. INTERNAL BENCHMARKS

The table below provides the funds' investment returns for the quarter and one-, three-, five-, and 10-year periods ending December 31, 2017 compared with the funds' policy indices, which are a custom benchmark that show the returns that would have been generated if a passive investor consistently followed the agency's asset allocation targets according to their investment policy.

The state's investment funds each generated returns above their long-term targets for the one- and five-year periods, and ERB and the permanent funds also generated returns above the long-term targets for the three-year period. The long-term return targets are 7.25 percent (PERA), 7.25 percent (ERB), 7 percent (LGPF), and 6.75 percent (STPF).

Returns as of December 31, 2017 (Net of Fees)[1]

	PERA		ERB		LGPF		STPF	
Returns (%)	Fund	Policy Index	Fund	Policy Index	Fund	Policy Index	Fund	Policy Index
Quarter	3.2	3.0	3.3	3.3	3.5	3.5	3.1	3.5
1-Year	13.9	13.2	13.9	14.1	15.1	13.9	14.0	14.0
3-Year	6.5	7.2	7.8	7.5	7.3	7.2	7.2	7.3
5-Year	8.3	8.3	8.5	8.0	8.9	8.9	8.6	8.9
10-Year	4.6	5.3	5.9	5.2	5.5	5.2	4.8	5.1

FUND ASSET VALUES

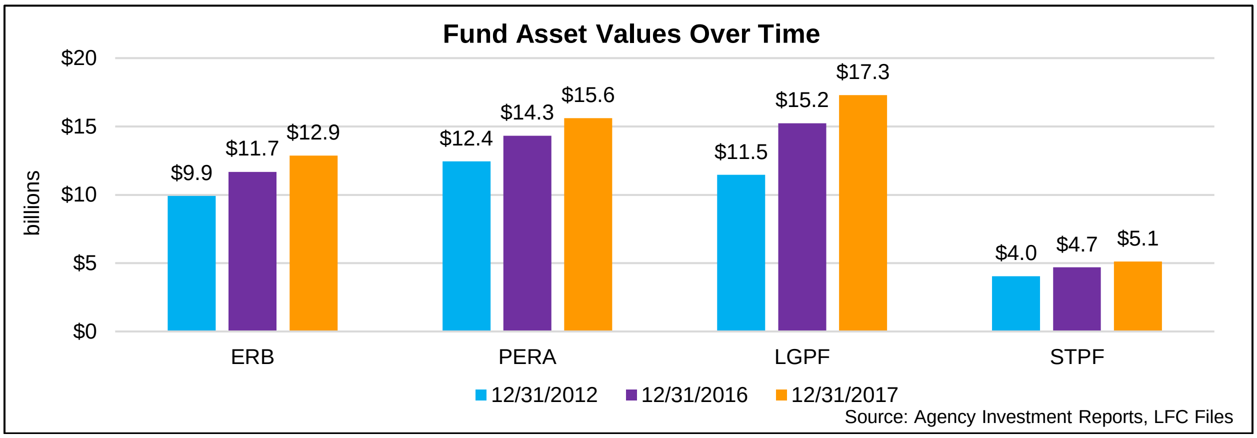
Fund balances grew over the last year, as shown in the table below.

Current Asset Values* (millions)
For One-Year Period Ending December 31, 2017

	ERB	PERA	LGPF	STPF	TOTAL
Current Asset Value	**$12,873.7**	**$15,597.5**	**$17,298.2**	**$5,124.3**	**$50,893.7**
Annual Change					
Ending Asset Value (12/31/2016)	$11,683.0	$14,322.4	$15,224.7	$4,687.3	$45,917.4
Value Change – Year Over Year	$1,190.7	$1,275.1	$2,073.6	$437.0	$4,976.3
% Change – Year Over Year	10.2%	8.9%	13.6%	9.3%	10.8%

*Net of Fees

The aggregate value of all four of the state's investment funds grew by nearly $5 billion, or 10.8 percent, in the last year and grew by $13.1 billion, or 34.5 percent, over the last five years. The land grant permanent fund, which is the largest of the four funds, added over $2 billion to the fund balance in CY17. Both ERB and PERA added over $1 billion to their fund balances in the last year, and the STPF added $437 million. All amounts displayed in the table above are net-of-fees and represent annual growth in fund balances less any distributions.

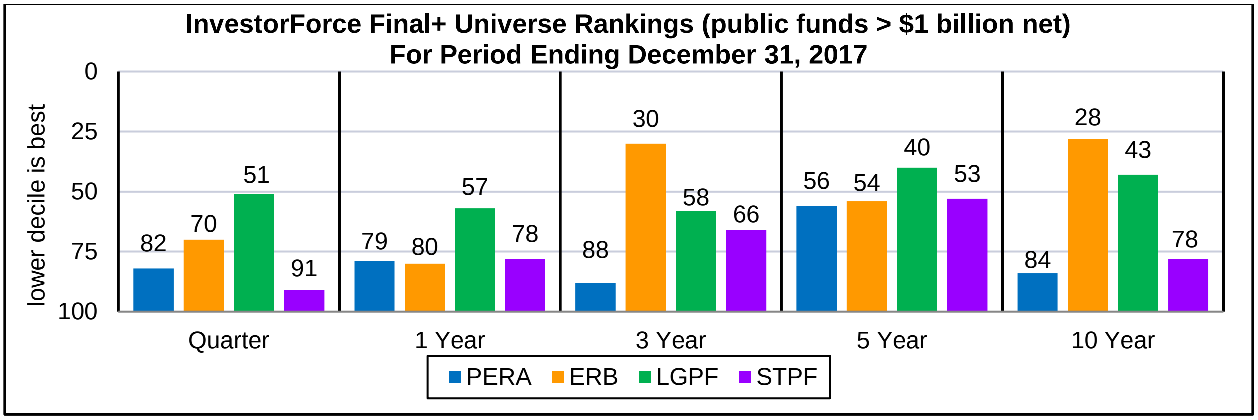


[1] When considering the performance of the state's investment funds, it is important to keep in mind the different investment goals, which influence the funds' risk-to-return choices, particularly in making asset allocation decisions that drive long-term fund returns. The pension funds operate under a dual mandate to generate income to pay current retiree benefits and to grow the principal of the fund to pay retiree benefits into the future. The permanent funds' investment goals are to grow the funds such that future generations may receive the same or greater benefits as current beneficiaries.

Each of the funds showed significant growth in the last five years, with the LGPF adding $5.8 billion to its fund balance, ERB adding nearly $3 billion, PERA adding $3.2 billion, and the STPF adding $1.1 billion. Notably, as pension funds, PERA and ERB's fund values reflect retiree benefit payouts, which must be made regardless of the amount of contributions received. Distributions from the permanent funds, however, are based on a formula using revenue, contributions, and a five-year average of the fund. Generally, due to these differences in liabilities, the permanent funds tend to have a larger percent change in fund asset values than the pension funds.

PERFORMANCE RELATIVE TO PEERS

Using the InvestorForce Final+ Universe, the state's investment fund returns are evaluated on a net-of-fee basis alongside approximately 60 public funds, each with more than $1 billion in assets.[2] The following figure shows net-of-fee total return rankings for the quarter, one-, three-, five-, and 10-year periods. A lower number (1 is best) denotes better performance when compared with other public funds within a comparable investment universe.



With CY17 net-of-fee returns ranging from 13.9 percent to 15.1 percent, New Mexico's investment funds each performed below the median (50th percentile) for the one-year period (the median CY17 return was 15.5 percent), although the LGPF returns were near the median in the 51st percentile. According to the investment agencies, below-median performance in CY17 was to be expected considering the strong stock market performance this year and the funds' lower-than-median equity exposure. Funds with higher equity exposure will rank higher during stock market rallies but risk significant losses in the event of a market crash. In diversifying away from heavy stock market exposure, the state's investment funds will give up potential returns in bull markets in favor of additional stability in moderate or negative return markets.

The ERB fund performed above the median for the three-year period, and the LGPF performed above the median for the five-year period. Notably, when compared on a net-of-fee basis, both

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[2] In prior LFC quarterly investment reports, New Mexico's investment funds were evaluated using the Wilshire Trust Universe Comparison Services (TUCS). However, in recognizing agency concerns over lack of return reporting standards for the TUCS universe (e.g., some funds report net-of-fees, some report gross-of-fees, and others report some variation of the two), LFC staff worked with the investment agencies to begin comparing all investment returns on a net-of-fee basis. The InvestorForce Final+ Universe offers net-of-fee peer comparisons and the most observations in the quarterly sample. Going forward, LFC quarterly reports will rely on InvestorForce rankings for peer universe comparisons.

ERB's fund and the LGPF ranked above the 50th percentile for the 10-year period, which captures the effects of the Great Recession. The PERA fund returns ranked in the lowest quartile for all periods except the five-year period, which was near median.

ACTUAL VS. TARGET ASSET ALLOCATIONS

The target asset allocations shown below represent the investment funds' portfolio structure, detailing how investments are made. Each of the investment agencies focus on a diversified portfolio, spreading out investments across a variety of asset classes. The table below shows the current actual asset allocation for the period ending December 31, 2017, compared with the funds' policy targets (except PERA, whose strategic asset allocation follows a different structure).

	ERB		PERA	LGPF		STPF	
	Actual	Target	Actual	Actual	Target	Actual	Target
US Equity	20.6%	19.0%	6.7%	26.0%	26%	24.7%	26%
International Equity	15.1%	14.0%	6.8%	20.8%	18%	21.2%	18%
Global Equity*	-	-	24.7%	-	-	-	-
Fixed Income	7.8%	6.0%	19.9%	24.5%	28%	24.0%	27%
Emerging Market Debt	1.7%	2.0%	3.5%	-	-	-	-
Alternatives							
Private Equity**	11.8%	13.0%	5.2%	9.8%	9%	10.5%	10%
Real Estate	6.2%	7.0%	6.5%	8.6%	9%	8.5%	9%
Real Assets	6.4%	8.0%	13.8%	9.6%	9%	9.5%	9%
Absolute Return	-	-	0.2%	2.5%	0%	2.6%	1%
Hedged Equity	-	-	0.3%	-	-	-	-
ETI***	-	-	-	-	-	0.8%	-
Opportunistic Credit	18.1%	18.0%	11.1%	-	-	-	-
Global Asset Allocation	4.9%	4.0%	-	-	-	-	-
Risk Parity	5.3%	3.0%	-	-	-	-	-
Cash Equivalents	2.2%	1.0%	1.4%	0.7%	1%	0.9%	

*Unlike the other investment funds, PERA's global equity asset class includes domestic and international public securities, global low volatility equity, hedged equity, and private equity.

**SIC's interim target for private equity investments is 9 percent, with a long-term target of 12 percent. The STPF private equity portfolio also includes the New Mexico Private Equity Investment Program (NMPEIP), which are allowed to achieve differential rate, or "below-market" returns, but are expected to induce job and industry creation for the state.

***Economically targeted investments – by statute, up to 1 percent of the STPF is granted to the Small Business Investment Corporation (SBIC) to encourage NM business expansion and job creation.

ASSET CLASS PERFORMANCE

The state's investments in U.S. equities returned over 20 percent in CY17, and international equities returned about 30 percent, demonstrating last year's bull market. Each of the funds' public equity returns outperformed their benchmarks. Additionally, PERA's fund and the permanent funds' private equity investments returned about 17 percent last year, and ERB's private equity investments returned about 13 percent. Real estate, fixed income, and most real assets also posted solid gains for each of the investment funds in the last year.

PERA and SIC expressed concern that the forward-looking investment environment will be challenging and low return. SIC's investment consultant RVK indicated returns on stocks will likely be limited to about 7 percent in the long-run, compared with a historical annual return of about 9 percent to 11 percent, and bonds are expected to provide about half of their historical yield. Given future low-return expectations, SIC plans to lower its weightings in stocks and continue to diversify its investments by employing strategies such as seeking income-producing investments over capital-gain producing investments where practical. Similarly, PERA's 2018 Annual Strategic Letter indicates potential for the next 10-year median nominal return on equities to be a modest 5 percent. The letter states PERA's current strategic asset allocation, with current long-term asset return and risk assumptions, would fall short of their long-term investment targets, producing a 6.5 percent absolute return over the long run. Since the timing of any market correction remains uncertain, PERA's goal is to set a strategic asset allocation portfolio that will meet the agency's actuarial required return of 7.25 percent (7.75 percent after 2025) over the long term (10+ years) by incorporating more complex active management strategies and private assets into the portfolio. In 2018, PERA plans to recommend a strategic asset allocation policy that increases expected return via risk balancing efficiencies and to begin implementing active management initiatives to produce long-run excess return over the asset allocation.

RISK PROFILES

Risk is an inherent component of investing in financial markets. As risk of an investment fund is a function of the strategic asset allocation, it is prudent to keep the risk within tolerant levels to achieve the overall goals of the plan. This report utilizes a few key measures to evaluate the impact that risk plays in an investment portfolio, using the five-year period as a proxy for the portfolios' risk profiles over the course of a full market cycle.[3] The table below reports funds' standard deviation, Sharpe Ratio, and beta for the five-year period ending December 31, 2017.

Risk Metrics*, Five Years Ending 12/31/17

	ERB	PERA	LGPF	STPF
Standard deviation	4.6	5.8	4.2	4.2
Sharpe Ratio	1.8	1.4	2.0	2.0
Beta	0.9	1.1	1.0	1.0

*Net of fees

Standard deviation measures the fund's expected variability (deviation) of returns from the mean return. Investments that are more volatile generate a higher standard deviation. Of the four funds, PERA demonstrated the highest standard deviation, indicating higher volatility relative to the other funds. In the last year, PERA has consistently reported a higher standard deviation than the other funds and cited its transition to new policy targets as part of the issue, as the fund was previously overweight in global equity and risk mitigation. As of yearend, PERA now has a fully aligned asset allocation as compared with strategic targets. The Sharpe Ratio measures the risk-adjusted performance of a portfolio. The higher the number, the higher the return-to-risk level.[4] Typically, a good ratio is 1 or better, a very good ratio is 2 or better, and an excellent ratio is 3 or better. Each fund reported a "good" Sharpe Ratio for the five-year period (between 1 and 2), suggesting a fair level of return for the investment risk taken. Beta represents the volatility of the portfolio versus the policy index.[5] The beta for each of the funds was around 1, indicating the portfolios generally tracked with their policy indices.

[3] A full market cycle is a peak-to-peak period typically containing a price decline of at least 20 percent over at least a two-month period from the previous market peak, followed by a rebound that establishes a new, higher peak.
[4] An example of a risk free return is a 5-year treasury bond.
[5] Beta = 1: portfolio moves with the market. Beta < 1: portfolio is less volatile than market. Beta > 1: portfolio is more volatile than the market.

ATTACHMENT 1 – INVESTMENT RETURNS