LEGISLATIVE BUDGET BOARD

# Annual Report on Major State Investment Funds 

Fiscal Year 2015

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## EXECUTIVE SUMMARY

The fiscal year 2015 Annual Report on Major State Investment Funds presents the financial performance for Texas' major investment funds. The report includes the risk-adjusted returns for the funds, as well as other performance and background information for each of the funds. The investing agencies or institutions of higher education provided all the information in this report (see attachments in Appendix D). The Legislative Budget Board (LBB) staff calculated the riskadjusted return and the five-year average total fund rate of return. The report does not include recommendations regarding portfolio allocations or current management practices. It is intended as an information resource only.

## INVESTMENT ENVIRONMENT

State fiscal year 2015 was the first fiscal year since 2009 that the major state investment funds reported earning negative or barely positive returns during the fiscal year. Domestic equity markets ended fiscal year 2015 down slightly from the start of the year; the three largest U.S. stock market indices, the S\&P 500, the Dow Jones Industrial Average, and the NASDAQ Composite, fell by 1.6 percent, 3.3 percent, and 4.3 percent, respectively. However, the relatively small annual change masked large volatility experienced in these markets during the course of the fiscal year. After decreasing approximately 7.0 percent during the first two months of the fiscal year, domestic equity markets steadily increased by 15.0 percent during the next nine months, before sharply decreasing in the last month of the fiscal year. Finally, international equities in both developed and emerging markets performed worse than the U.S. markets during the course of the fiscal year, with the MSCI World Index and the MSCI Emerging Markets Index decreasing by 5.9 percent and 24.7 percent, respectively.

In October 2014, the Federal Reserve finished the anticipated tapering of its quantitative easing policies and ended U.S. Treasury purchase of long-term Treasury securities and agency Mortgage Backed Securities. The end of these purchases marked the cessation of a program the Federal Reserve has used since 2008 to attempt to lower long-term interest rates to spur borrowing and corresponding economic activity. The next step in instituting its accommodative monetary policy, increasing the target for the Federal Funds
rate, is not expected until fiscal year 2016. Despite these actions, most long-term U.S. interest rates decreased slightly during fiscal year 2015. The 10-year Treasury yields closed fiscal year 2015 at 2.21 percent, a decrease of 14 basis points from the end of fiscal year 2014. In addition, 30-year fixed mortgage rates decreased by 26 basis points, and investment grade corporate bond rates increased by 56 basis points during the course of the fiscal year. U.S. consumer price inflation increased by only 0.5 percent during the fiscal year, the second lowest annual change in the last 60 years, which should allow the Federal Reserve to delay increases of interest rates in the near term.

The two largest fluctuations in the investment environment during fiscal year 2015 were the rapid appreciation of the U.S. dollar and the collapse of energy prices tied to crude oil. The value of the U.S. dollar, as measured against a broad basket of international currencies, increased by 16.3 percent during fiscal year 2015, reaching levels last reached in fiscal year 2003. Rapid increases in the global supply of crude oil vastly outweighed demand growth, leading to a collapse in the prices of hydrocarbon-based commodities. The price per barrel of Brent crude oil ended fiscal year 2015 trading at $\$ 47.97$, down 52.6 percent from the start of the year.

Figure 1 shows the path of equity markets during fiscal year 2015, and Figure 2 shows the beginning and ending value of various financial indicators during the same period.


## ENDING MARKET VALUE

The ending market value of the major investment funds included in this report for fiscal year 2015 was $\$ 209.5$ billion, which was $\$ 6.5$ billion, or 3.0 percent, less than the value of the funds at the end of fiscal year 2014. Changes in ending market values include investment returns, fund contributions, fund distributions, and expenses. The funds and their ending market values are shown in Figure 3.

| FIGURE 3 |  |
| :--- | :---: |
| ENDING MARKET VALUE OF MAJOR INVESTMENT FUNDS |  |
| FISCAL YEAR 2015 | VALUE |
|  | (IN BILLIONS) |
| FUND | $\$ 127.9$ |
| Teacher Retirement System Pension Trust |  |
| Fund |  |
| Permanent School Fund-TEA | $\$ 29.0$ |
| Permanent School Fund-GLO | $\$ 4.5$ |
| Employees Retirement System Pension Trust | $\$ 25.2$ |
| $\quad$ Fund |  |
| Permanent University Fund | $\$ 17.5$ |
| Permanent Health Fund | $\$ 1.1$ |
| Tobacco Settlement Permanent Trust Fund | $\$ 2.3$ |
| Texas Guaranteed Tuition Plan Fund | $\$ 1.0$ |
| Permanent Public Health Fund | $\$ 0.3$ |
| National Research University Fund | $\$ 0.7$ |
| Total Investment Funds |  |
| Notes: |  |
| (1) Totals might not sum due to rounding. |  |
| (2) PSF-GLO ending market values are based on year ending |  |
| Soune 30, 2015. | $\$ 209.47$ |
| Management Company. |  |

## RATES OF RETURN

The average rate of return for the funds in 2015 was 0.76 percent and ranged from -3.36 percent to 11.32 percent as shown in Figure 4.

The total fund rate of return used in this report is the gross time-weighted rate of return for all investments of each fund. The time-weighted rate is calculated before related investment expenses are deducted, and is adjusted to eliminate the effect of timing of cash flows due to contributions and withdrawals. The five-year average rate of return is calculated using a geometric average of the annual rates of return for the fiveyear period, from fiscal years 2011 to 2015.

The annual rates of return reflect both income earned and change in fund value, without consideration of the risk of

FIGURE 4
MAJOR INVESTMENT FUNDS TIME-WEIGHTED GROSS RETURN, FISCAL YEAR 2015

|  | RATE OF RETURN |  |
| :--- | :---: | :---: |
|  | TIME- <br> WEIGHTED | BENCHMARK <br> $(1)$ |
| FUND | $(0.14 \%)$ | $(0.76 \%)$ |
| Teacher Retirement System <br> Pension Trust Fund |  |  |
| Permanent School Fund-TEA | $(3.36 \%)$ | $(3.71 \%)$ |
| Permanent School Fund-GLO | $11.32 \%$ | $10.62 \%$ |
| Employees Retirement System | $0.49 \%$ | $(1.03 \%)$ |
| $\quad$ Pension Trust Fund |  |  |
| Permanent University Fund | $0.68 \%$ | $(1.37 \%)$ |
| Permanent Health Fund | $1.08 \%$ | $(1.37 \%)$ |
| Tobacco Settlement Permanent | $(0.29 \%)$ | $(1.12 \%)$ |
| $\quad$ Trust Fund |  |  |
| Texas Guaranteed Tuition Plan | $0.90 \%$ | $0.90 \%$ |
| $\quad$ Fund |  |  |
| Permanent Public Health Fund | $(2.52 \%)$ | $(1.12 \%)$ |
| National Research University | $(0.58 \%)$ | $(1.12 \%)$ |
| $\quad$ Fund |  |  |

Notes:
(1) Benchmark Adjusted Gross Returns were calculated by the agencies or institutions and are identified in the background information provided for each fund in Appendix B.
(2) Each fund has different investment objectives and strategies, some required by law, that affect its benchmarks and performance.
(3) PSF-GLO rates of return are based on year ending June 30, 2015, and exclude cash and short-term securities related to unfunded capital commitments held at the state Treasury.
Source: Investing agencies; The University of Texas Investment Management Company.
fund investments. Figure 5 shows the average rates of return across five years.

## RISK-ADJUSTED RETURN

The risk-adjusted return is a tool used to compare the performance of funds that have different types and proportions of assets, and quantifies a fund's return relative to its risk. The Sharpe ratio determines the risk-adjusted return for each fund. As Figure $\mathbf{6}$ shows, the ratios range from 1.089 to 1.469 .

A risk-adjusted return is a single statistic that reflects the return and volatility of returns. A generally accepted measure for computing the risk-adjusted return is the Sharpe ratio, developed by Nobel Laureate William Sharpe. The Sharpe ratio is often used to rank the risk-adjusted performance of various portfolios during the same period. The results of the Sharpe ratio indicate the amount of return (in excess of some risk-free level of return) earned per unit of risk.

FIGURE 5
AVERAGE ANNUAL RATES OF RETURN FISCAL YEARS 2011 TO 2015

| FUND | RATE OF <br> RETURN |
| :--- | ---: |
| Teacher Retirement System Pension Trust Fund | $9.69 \%$ |
| Permanent School Fund-TEA | $8.95 \%$ |
| Permanent School Fund-GLO | $15.56 \%$ |
| Employees Retirement System Pension Trust | $9.09 \%$ |
| $\quad$ Fund |  |
| Permanent University Fund | $8.58 \%$ |
| Permanent Health Fund | $8.43 \%$ |
| Tobacco Settlement Permanent Trust Fund | $6.47 \%$ |
| Texas Guaranteed Tuition Plan Fund | $6.12 \%$ |
| Permanent Public Health Fund | $5.94 \%$ |
| National Research University Fund | $6.03 \%$ |
| Notes: |  |
| (1) Each fund has different investment objectives and strategies, |  |
| $\quad$some required by law, that affect its benchmarks and <br> performance. |  |
| (2) PSF-GLO rates of return are based on a year ending June |  |
| 30, 2011, to 2015. |  |
| (3) The average annual rate of return was determined using the |  |
| time-weighted rate of return provided by the agencies. |  |
| Source: Investing agencies; The University of Texas Investment |  |
| Management Company. |  |

FIGURE 6
RISK-ADJUSTED RETURN, FISCAL YEARS 2011 TO 2015

| FUND | RATE OF RETURN <br> (SHARPE RATIO) |
| :--- | :---: |
| Teacher Retirement System Pension Trust <br> Fund | 1.387 |
| Permanent School Fund-TEA | 1.114 |
| Employees Retirement System Pension | 1.202 |
| $\quad$ Trust Fund | 1.469 |
| Permanent University Fund-UTIMCO | 1.449 |
| Permanent Health Fund-UTIMCO | 1.231 |
| Tobacco Settlement Permanent Trust Fund | 1.272 |
| Texas Guaranteed Tuition Plan Fund | 1.089 |
| Permanent Public Health Fund | 1.128 |
| National Research University Fund |  |

## Notes:

(1) The PSF-GLO invests solely in real estate; therefore, it is not appropriate to use GLO's risk-adjusted return as measured by the Sharpe Ratio in comparison to the other funds.
(2) The rates of return used in the Sharpe ratio calculations are the monthly rates of return provided by the investing agencies and The University of Texas Investment Management Company.
Source: Investing agencies; The University of Texas Investment Management Company.

The formula for the Sharpe ratio follows:

$\left(\begin{array}{c}\text { Standard Deviation } \\ \text { of the Portfolio's Return } \\ \text { Over Time }\end{array}\right)$

For example, a portfolio with an average annualized return of 10.0 percent during the past five years, the growth of which consistently, year after year, fell within a tight range of 7.0 percent to 12.0 percent, would reflect a higher (better) riskadjusted return than another portfolio that averaged the same 10.0 percent annualized return, but varied greatly year to year (higher volatility), with returns ranging from decreased of 20.0 percent to increases of 50.0 percent. Riskadjusted returns should only be calculated for a minimum period of three years because, for a single year, the statistic is unreliable. For purposes of this report, the Sharpe ratio is constructed for a five-year period of returns.

The Sharpe ratio is a figure used for comparative purposes, and does not reflect different investment objectives and restrictions, which legitimately produce different investment strategies and results for different funds.

The total return amounts used in the calculations were provided by the entities responsible for investing the funds. Each fund provided 60 monthly rates of return that were used to calculate the fund's return and standard deviation. The risk-free rate used for the calculation is the average of the monthly annualized yield of the 90-day Treasury Bill throughout the respective fiscal year. All rates come from the Federal Reserve Economic Database.

## USE OF EXTERNAL MANAGERS/ADVISORS FOR INVESTMENTS

Each of the funds varies in its use of external managers or advisors to invest its assets. Figure 7 shows the portion of assets managed internally and externally for fiscal year 2015.

| FIGURE 7 |  |  |
| :---: | :---: | :---: |
| PORTION OF ASSETS MANAGED INTERNALLY AND EXTERNALLY, FISCAL YEAR 2015 |  |  |
| FUND | INTERNAL | EXTERNAL |
| Teacher Retirement System Pension Trust Fund | 75.1\% | 24.9\% |
| Permanent School Fund-TEA | 45.7\% | 54.3\% |
| Permanent School Fund-GLO | 11.9\% | 88.1\% |
| Employees Retirement System Pension Trust Fund | 62.9\% | 37.2\% |
| Permanent University Fund | 4.5\% | 95.5\% |
| Permanent Health Fund | 3.9\% | 96.1\% |
| Tobacco Settlement Permanent Trust Fund | 0.0\% | 100.0\% |
| Texas Guaranteed Tuition Plan Fund | 0.0\% | 100.0\% |
| Permanent Public Health Fund | 0.0\% | 100.0\% |
| National Research University Fund | 0.0\% | 100.0\% |
| Notes: |  |  |
| (1) The UT-PHF assets are invested in System General Endowment Fund ( shown reflect the allocation of the G | the Universit GEF). The p EF assets. | of Texas centages |
| (2) The PSF-GLO percentages reflect estate only. | the managem | ent of real |
| Sources: Investing agencies; The Unive Management Company. | rsity of Texas | Investment |
| RATES OF RETURN FOR |  |  |
| DOMESTIC EQUITY INVESTMENTS |  |  |

Each of the funds has a significant amount invested in domestic equity investments. The benchmark for this asset group is the Standard \& Poor's (S\&P) 500 Composite Index. The S\&P 500 Composite Index is the investment industry's standard for measuring the performance of actual portfolios. It is a market-value-weighted index of 500 large-cap stocks that are traded on either the New York Stock Exchange or the NASDAQ National Market System. In fiscal year 2015, the rate of return for the S\&P 500 Composite Index was -1.56 percent. In addition to domestic equities, the funds invested varying proportions of their funds' assets in global equities and private equity. Rates of return for these asset classes can be found in each fund's appendix.

Figure 8 shows the rates of return for domestic equity investments for fiscal year 2015. If applicable, the rates are shown for investments managed by external managers and for investments managed internally.

FIGURE 8
RATES OF RETURNS FOR DOMESTIC EQUITY INVESTMENTS FISCAL YEAR 2015

## BENCHMARKS

| Standard \& Poor's 500 Index | $(1.56 \%)$ |  |
| :--- | :---: | :---: |
| FUND | INTERNAL | EXTERNAL |
| Teacher Retirement System <br> Pension Trust Fund | N/A | N/A |
| Permanent School Fund-TEA | $0.67 \%$ | N/A |
| Permanent School Fund-GLO | N/A | N/A |
| Employees Retirement System <br> Pension Trust Fund | $(3.44 \%)$ | $(3.23 \%)$ |
| Permanent University Fund <br> Permanent Health Fund | $4.47 \%$ |  |
| Tobacco Settlement Permanent <br> Trust Fund | N/A | $(2.32 \%)$ |
| Texas Guaranteed Tuition Plan <br> Fund | N/A | $0.60 \%$ |
| Permanent Public Health Fund <br> National Research University Fund | N/A | N/A |

Notes:
(1) $N / A=$ funds that did not report domestic equity investments for the category shown.
(2) Funds with only one number displayed did not report their return separately for internally and externally managed equities.
(3) The UT-PHF assets are invested in the University of Texas System General Endowment Fund (GEF). The percentages shown reflect the return of the GEF assets.
Sources: Investing agencies; The University of Texas Investment Management Company.

## ACRONYMS

Acronyms used throughout this report follow:
The University of Texas System - UT
Texas Education Agency - TEA
General Land Office - GLO
State Board of Education - SBOE
School Land Board - SLB
Employees Retirement System - ERS
Teacher Retirement System - TRS
Comptroller of Public Accounts - CPA
Permanent School Fund - PSF
Permanent University Fund - PUF
Permanent Health Fund - PHF
Tobacco Settlement Fund - TSF
Texas Guaranteed Tuition Plan Fund - TGTF
Permanent Public Health Fund - PPHF
National Research University Fund - NRUF

## ALL MAJOR FUNDS

See Appendix D for a guide to references used in this section.
FIGURE 9
ENDING MARKET VALUE, FISCAL YEAR 2015
(IN BILLIONS)


Notes:
(1) The University of Texas Investment Management Company amounts include the PUF and PHF.
(2) Permanent School Fund amounts include both the TEA-controlled and GLO-controlled portions.
(3) CPA amounts include the TSF, the TGTP, the PPHF, and the NRUF.

Sources: Investing agencies; The University of Texas Investment Management Company.
FIGURE 10
RATES OF RETURN AND BENCHMARKS, FISCAL YEAR 2015


Note: Benchmark Adjusted Gross Returns were calculated by the agencies or institutions and are identified in the background information provided for each fund in Appendix B. Each fund has different investment objectives and strategies, some required by law, that affect its benchmarks and performance. PSF-GLO rates of return are based on year ending June 30, 2015, and exclude cash and short-term securities related to unfunded capital commitments held at the state Treasury.
Sources: Investing agencies; The University of Texas Investment Management Company.

FIGURE 11
AVERAGE TOTAL FUND RATES OF RETURN, FIVE-YEAR PERIOD, FISCAL YEARS 2011 TO 2015


Nоте: Each fund has different investment objectives and strategies, some required by law, that affect its benchmarks and performance. PSF-
GLO rates of return are based on a year ending June 30, 2011, to 2015. The average annual rate of return was determined using the timeweighted rate of return provided by the agencies.
Sources: Investing agencies; The University of Texas Investment Management Company.

FIGURE 12
RISK-ADJUSTED RATES OF RETURN, FIVE-YEAR PERIOD, FISCAL YEARS 2011 TO 2015


Note: The PSF-GLO invests solely in real estate; therefore, it is not appropriate to use GLO's risk-adjusted rate as measured by the Sharpe ratio in comparison to the other funds.
Sources: Investing agencies; The University of Texas Investment Management Company.

FIGURE 13
PERCENTAGE OF ASSETS INTERNALLY AND EXTERNALLY MANAGED, FISCAL YEAR 2015


Note: The UT-PHF assets are invested in the University of Texas System General Endowment Fund (GEF). The percentages shown reflect the allocation of the GEF assets. The PSF-GLO percentages reflect the management of real estate only.
Sources: Investing agencies; The University of Texas Investment Management Company.

FIGURE 14
TEACHER RETIREMENT SYSTEM PORTFOLIO DIVERSIFICATION ENDING MARKET VALUES, FISCAL YEARS 2011 TO 2015


Note: Other investments include Hedge Funds, Absolute Return, Real Assets, Commodities, and Real Estate Investment Trusts. Sources: Investing agencies; The University of Texas Investment Management Company.

FIGURE 15
TEACHER RETIREMENT SYSTEM ANNUAL TOTAL RATES OF RETURN, FISCAL YEARS 2011 TO 2015


Sources: Investing agencies; The University of Texas Investment Management Company.

FIGURE 16
PERMANENT SCHOOL FUND-TEXAS EDUCATION AGENCY PORTFOLIO DIVERSIFICATION ENDING MARKET VALUES FISCAL YEARS 2011 TO 2015


Note: Other includes Absolute Return, Real Estate, Private Equity, Risk Parity, Real Return, and Emerging Market Debt. Sources: Investing agencies; The University of Texas Investment Management Company.

FIGURE 17
PERMANENT SCHOOL FUND-TEXAS EDUCATION AGENCY ANNUAL TOTAL RATES OF RETURN FISCAL YEARS 2011 TO 2015


[^0]FIGURE 18
PERMANENT SCHOOL FUND-GENERAL LAND OFFICE PORTFOLIO DIVERSIFICATION ENDING MARKET VALUES FISCAL YEARS 2011 TO 2015


Sources: Investing agencies; The University of Texas Investment Management Company.

FIGURE 19
PERMANENT SCHOOL FUND-GENERAL LAND OFFICE ANNUAL TOTAL RATES OF RETURN FISCAL YEARS 2011 TO 2015


Sources: Investing agencies; The University of Texas Investment Management Company.

## FIGURE 20 <br> EMPLOYEES RETIREMENT SYSTEM PORTFOLIO DIVERSIFICATION ENDING MARKET VALUES FISCAL YEARS 2011 TO 2015



Sources: Investing agencies; The University of Texas Investment Management Company.

FIGURE 21
EMPLOYEES RETIREMENT SYSTEM ANNUAL TOTAL RATES OF RETURN
FISCAL YEARS 2011 TO 2015


[^1]FIGURE 22
PERMANENT UNIVERSITY FUND PORTFOLIO DIVERSIFICATION ENDING MARKET VALUES FISCAL YEARS 2011 TO 2015


Note: Other includes Equity Hedge, Non-Marketable, Commodities, and Real Estate categories reported by The University of Texas Investment Management Company.
Sources: Investing agencies; The University of Texas Investment Management Company.

FIGURE 23
PERMANENT UNIVERSITY FUND ANNUAL TOTAL RATES OF RETURN FISCAL YEARS 2011 TO 2015


[^2]FIGURE 24
PERMANENT HEALTH FUND PORTFOLIO DIVERSIFICATION ENDING MARKET VALUES FISCAL YEARS 2011 TO 2015


Note: Other includes Equity Hedge, Non-Marketable, Commodities, and Real Estate categories reported by The University of Texas Investment Management Company.
Sources: Investing agencies; The University of Texas Investment Management Company.

## FIGURE 25 <br> PERMANENT HEALTH FUND ANNUAL TOTAL RATES OF RETURN FISCAL YEARS 2011 TO 2015



[^3]FIGURE 26
TOBACCO SETTLEMENT PERMANENT TRUST PORTFOLIO DIVERSIFICATION ENDING MARKET VALUES FISCAL YEARS 2011 TO 2015


Note: Other includes Alternate Fixed Income, Equity Hedge, Private Debt, Private Equity, Real Estate - Value, Real Estate - Stable, Natural Resources, and Inflation Linked Bonds.
Sources: Investing agencies; The University of Texas Investment Management Company.

FIGURE 27
TOBACCO SETTLEMENT PERMANENT TRUST ANNUAL TOTAL RATES OF RETURN FISCAL YEARS 2011 TO 2015


Sources: Investing agencies; The University of Texas Investment Management Company.

FIGURE 28
TEXAS GUARANTEED TUITION PLAN FUND PORTFOLIO DIVERSIFICATION ENDING MARKET VALUES FISCAL YEARS 2011 TO 2015


Sources: Investing agencies; The University of Texas Investment Management Company.

FIGURE 29
TEXAS GUARANTEED TUITION PLAN FUND ANNUAL TOTAL RATES OF RETURN
FISCAL YEARS 2011 TO 2015


[^4]FIGURE 30
PERMANENT PUBLIC HEALTH FUND PORTFOLIO DIVERSIFICATION ENDING MARKET VALUES FISCAL YEARS 2011 TO 2015


NотE: Other includes Alternate Fixed Income, Equity Hedge, Private Debt, Private Equity, Real Estate - Value, Real Estate - Stable, Natural Resources, and Inflation Linked Bonds.
Sources: Investing agencies; The University of Texas Investment Management Company.

FIGURE 31
PERMANENT PUBLIC HEALTH FUND ANNUAL TOTAL RATES OF RETURN
FISCAL YEARS 2010 TO 2015


[^5]FIGURE 32
NATIONAL RESEARCH UNIVERSITY FUND PORTFOLIO DIVERSIFICATION ENDING MARKET VALUES FISCAL YEARS 2011 TO 2015


Note: Other includes Alternate Fixed Income, Equity Hedge, Private Debt, Private Equity, Real Estate - Value, Real Estate - Stable, Natural Resources, and Inflation Linked Bonds.
Sources: Investing agencies; The University of Texas Investment Management Company.

FIGURE 33
NATIONAL RESEARCH UNIVERSITY FUND ANNUAL TOTAL RATES OF RETURN FISCAL YEARS 2010 TO 2015


[^6]
## APPENDIX A. AUTHORIZING STATUTE

SECTION 1. Chapter 322, Texas Government Code, is amended by adding Section 322.014 to read as follows:

Sec. 322.014. REPORT ON MAJOR INVESTMENT FUNDS.
(a) In this section, "state investment fund" means any investment fund administered by or under a contract with any state governmental entity, including a fund:
(1) established by statute or by the Texas Constitution; or
(2) administered by or under a contract with:
(A) a public retirement system as defined by Section 802.001, Government Code, that provides service retirement, disability retirement, or death benefits for officers or employees of the state;
(B) an institution of higher education as defined by Section 61.003, Texas Education Code; or
(C) any other entity that is part of state government.
(b) The Legislative Budget Board shall evaluate and publish an annual report on the risk-adjusted performance of each state investment fund that in the opinion of the board contains a relatively large amount of assets belonging to or administered by the state. The board in its report shall:
(1) compare the risk-adjusted performance of the funds; and
(2) examine the risk-adjusted performance, within and among the funds, of similar asset classes and comparable portfolios within asset classes.
(c) Each state governmental entity that administers a state investment fund and each person that administers a state investment fund under contract shall provide the board with the information the board requests regarding the performance of the fund.
(d) The board shall publish the annual report in a format and using terminology that a person without technical investment expertise can understand.

# APPENDIX B. MAJOR STATE INVESTMENT FUNDS <br> TEACHER RETIREMENT SYSTEM - PENSION TRUST FUND 

## FUND PURPOSE

The Teacher Retirement System of Texas (TRS) administers a defined benefit plan that is a qualified pension trust fund pursuant to the U.S. Internal Revenue Code, Section 401(a). The pension trust fund provides service and disability retirement, as well as death and survivor benefits, to eligible employees of public school districts and institutions of higher education in Texas and their beneficiaries.

## FUND CONTRIBUTIONS

Member contributions, state contributions, reporting entity contributions, and member reinstatements increased the fund's value in fiscal year 2015, while investment income decreased the fund's value. The state constitution requires the Legislature to establish a member contribution rate of not less than 6.0 percent of the member's annual compensation and a state contribution rate of not less than 6.0 percent but not more than 10.0 percent of the aggregate annual compensation of all members of the system during that fiscal year. In fiscal year 2015, the member contribution rate was 6.7 percent, an increase from the 6.4 percent member contribution rate in fiscal year 2014. The state contribution rate in fiscal year 2015 was 6.8 percent. In addition, schools that do not participate in Social Security began paying a 1.5 percent contribution rate in fiscal year 2015.

Fiscal year 2015 total contributions decreased by $\$ 19,267$ million, or 78.7 percent, from fiscal year 2014 contributions, primarily due to a $\$ 19,847$ million decrease in investment income, relative to fiscal year 2014. In fiscal year 2015, member contributions were $\$ 2,576.0$ million, state and federal/private contributions were $\$ 1,593.6$ million, reporting entity contributions were $\$ 1,378.0$ million, and member reinstatements were $\$ 50.1$ million. In fiscal year 2015, investment income resulted in a loss of $\$ 412.8$ million to the fund.

## FUND DISTRIBUTIONS

Deductions from the fund are predominantly retirement, death, and survivor benefits. During fiscal year 2015, the fund paid $\$ 8,937.0$ million for benefits, $\$ 391.3$ million for members refunding their accounts, and $\$ 119.9$ million for other expenses (net of investing activity expenses). In fiscal year 2015, fund distributions totaled $\$ 9,448.3$ million.

## INVESTMENT OBJECTIVE

The TRS Board of Trustees governs the investment process by adopting investment policies and objectives, which define the fund's strategic investment initiatives, and by monitoring performance to measure the results of both tactical and strategic investment strategies. The total investment portfolio is structured to achieve a long-term rate of return that exceeds the assumed actuarial rate of return adopted by the board; exceeds the long-term rate of inflation by an annualized 5.0 percent; and exceeds a composite index composed of the respective long-term normal asset mix weighting of the major asset classes, operating within the defined risk parameters for the various asset classes. Investment decisions must adhere to the so-called prudent person standard. In fiscal year 2008, the board reviewed and adjusted the investment policy to achieve the long-term targeted rate of return of 8.0 percent. This review resulted in a shift to a more diversified investment strategy, which included a change in asset allocation, replacing benchmarks, and development of TRS LABS, a program launched by the Investment Management Division, that aims to continually improve TRS investment management through leadership.

## INVESTMENT AND OVERSIGHT RESPONSIBILITY

The TRS Board of Trustees holds system assets in trust and oversees the investment of the system's funds in accordance with applicable constitutional and statutory provisions. The board is composed of nine trustees who are appointed by the Governor to staggered terms of six years. Three trustees are direct appointments. Two trustees are appointed from a list prepared by the State Board of Education. Two trustees are appointed by the Governor from the three public school district active member candidates nominated for each position by employees of public school districts. One trustee is appointed from the three higher education active member candidates nominated by employees of institutions of higher education. One trustee is appointed from the three retired member candidates nominated by retired TRS members. A majority of the board is required to have financial expertise, and is assisted by outside investment consultants and internal and external legal counsel. Appointments are subject to confirmation by the Senate. Board member terms expire August 31 of odd numbered years.

## TEACHER RETIREMENT SYSTEM - PENSION TRUST FUND (CONTINUED)

## PERCENTAGE OF ASSETS EXTERNALLY MANAGED/ADVISED

According to TRS, internal staff manages 75 percent of TRS assets; the remaining 25 percent are managed externally. External management of funds began in August of 2008.

## INVESTMENT COSTS

The cost of investing the funds for the fiscal year 2015 was $\$ 261.9$ million, or 20 basis points ( 0.20 percent) of the net assets held in trust for pension benefits at the end of fiscal year 2015. The investment cost consists of $\$ 33.9$ million in direct internal cost and $\$ 14.3$ million in indirect internal cost. According to TRS, direct investment expenses included salaries and operating costs of the investment division. Indirect costs included fees for services such as accounting, purchasing, legal and supplies and security. External investment costs include fees paid to external managers and do not include transaction costs on investments and were $\$ 213.8$ million in fiscal year 2015. Prior year investment costs were $\$ 200.7$ million, or 0.15 percent, of the net assets.

## PERFORMANCE BENCHMARKS

TRS provided the following benchmarks for fiscal year 2015 (Figure B1).

## ACTIONS OF EIGHTY-FOURTH LEGISLATURE

The Eighty-fourth Legislature, 2015, passed several bills that affect the TRS Pension Trust Fund.

House Bill 1937-the enactment of HB 1937 authorizes certain members of TRS who have not retired to revoke the member's decision to participate in the deferred retirement option plan on or before December 31, 2015.

House Bill 2168—enactment of HB 2168 changes the payment date for monthly annuities from the first working day of each month following the month for which the payment accrues to the last working day of the month or which the payment accrues.

House Bill 2974—the enactment of this legislation amends various statutes governing administration of TRS, including clarifying provisions relating to eligibility, creditable service, the Board of Trustees, and contribution.

FIGURE B1
TEACHER RETIREMENT SYSTEM - PENSION TRUST FUND PERFORMANCE BENCHMARKS, FISCAL YEAR 2015

| BENCHMARK NAME | ASSET CLASS | 2015 RATE OF RETURN |
| :---: | :---: | :---: |
| MSCI USA Standard | U.S. Large Cap | 0.53\% |
| MSCI USA Small Cap | U.S. Small Cap | (0.63\%) |
| MSCI Emerging Markets | Emerging Markets | 22.95\% |
| MSCI EAFE + Canada Equity | Non-U.S. Developed Equity | (9.25\%) |
| HFRI Fund of Funds Composite | Directional Hedge Funds | 1.64\% |
| State Street Private Equity Index | Private Equity | 7.62\% |
| Barclays Capital Long Treasury Index | U.S. Long Treasuries | 5.163\% |
| 3-Month LIBOR + 2\% | Absolute Return | 2.27\% |
| HFRI Fund of Funds Conservative | Stable Value Hedge Funds | 1.93\% |
| Citigroup 90-day T-Bill | Cash Equivalents | 0.03\% |
| BC U.S. TIPS Index | U.S. Treasury Inflation-Protected Securities | (2.73\%) |
| NCRIEF ODCE | Real Assets | 12.40\% |
| Goldman Sachs Commodity Index | Commodities | (41.56\%) |
| Source: Teacher Retirement | System. |  |

Source: Teacher Retirement System.

## PERMANENT SCHOOL FUND - TEXAS EDUCATION AGENCY

## FUND PURPOSE

The Permanent School Fund (PSF) was established expressly for the benefit of funding Texas public schools. A total return distribution rate, which was 3.3 percent in fiscal year 2015, along with 25.0 percent of the state's motor fuel tax revenues are transferred to the Available School Fund (ASF). Monies from the fund are distributed to local public school districts based on the average daily attendance of public school students.

## FUND CONTRIBUTIONS

Proceeds from the sale of PSF land, royalty, and other earnings generated by the PSF land are added annually to the fund by the General Land Office (GLO), which manages the real estate assets. In addition to these deposits GLO transfers an authorized amount set by the State Land Board (SLB) each year to the Texas Education Agency (TEA). According to TEA $\$ 150$ million was transferred from GLO to the PSF controlled portion of the PSF during fiscal year 2015.

## FUND DISTRIBUTIONS

The fund calculates its annual distribution to the ASF using a total return methodology, established by constitutional amendment in 2003. Distribution rates are set by a twothirds vote of the State Board of Education (SBOE). If the SBOE does not set the rate before the start of the next legislative session, then the Legislature will set the distribution rate. The distribution rate cannot exceed 6.0 percent of the total market value and the total distribution over the past 10 years cannot exceed the total return for the same period. The distribution rate was set at 3.3 percent for both fiscal years 2014 and 2015. In fiscal year 2015, $\$ 838.7$ million was transferred to the ASF.

## INVESTMENT OBJECTIVE

The investment objective, according to TEA, is long term and focused on fairly balancing the benefits between current and future generations while preserving the real per capita value of the PSF. Investment decisions adhere to the "prudent person" rule and asset class allocations are adjusted accordingly to meet the investment objectives of the fund.

## INVESTMENT AND OVERSIGHT RESPONSIBILITY

The Texas Constitution assigns control of PSF assets to the SBOE while administrative duties related to the PSF reside
with the Commissioner of Education and TEA staff. SBOE members are elected from 15 single-member districts with the Governor designating the chairman. No members are required to have experience in investment management. The SBOE appoints a Committee of Investment Advisors ("CIA") to provide independent review of the fund's investment policies, procedures, and nature of investments. Each member of the SBOE appoints a single member to the CIA and these advisors serve at the pleasure of the SBOE member that appointed them.

## PERCENTAGE OF ASSETS EXTERNALLY MANAGED/ADVISED

According to TEA, approximately 54.3 percent of PSF assets were externally managed in fiscal year 2015. Independent firms are used to invest funds, provide custodial and accounting services, provide securities lending services, advise on asset allocation, and evaluate investment performance. TEA reports external managers are used to manage international equities and absolute return investments.

## INVESTMENT COSTS

According to TEA, the cost of administrating the fund was $\$ 21.1$ million, or 7 basis points ( 0.07 percent) of the ending fund balance for fiscal year 2015. This cost includes $\$ 20.6$ million of internal investment expenses and \$540,000 of external investment expenses. In addition to standard investment salaries, costs, and allocated agency overhead, TEA reports investment expenses included costs associated with accounting, information technology, compliance and support staff; as well as fees paid for external management. Prior year investment costs were $\$ 17.1$ million or 0.06 percent of the fund balance.

## PERFORMANCE BENCHMARKS

The following benchmarks were provided by TEA for fiscal year 2015 (Figure B2).

An allocation index is calculated for each class of investments (fixed income and equity securities) to measure the overall performance. The allocation index is the weighted average rate of return of each of the above indices.

## PERMANENT SCHOOL FUND - TEXAS EDUCATION AGENCY (CONTINUED)

| FIGURE B2 |  |  |
| :---: | :---: | :---: |
| PERMANENT SCHOOL FUND-TEXAS EDUCATION AGENCY PERFORMANCE BENCHMARKS, FISCAL YEAR 2015 |  |  |
|  |  |  |
|  |  | 2015 RATE |
| BENCHMARK NAME | ASSET CLASS | OF RETURN |
| Custom Target Policy | Total Fund | (3.7\%) |
| Total Equity | Total Equity | (4.7\%) |
| Domestic Equity | Domestic Equity | 0.5\% |
| S\&P 500 Index | Domestic Equity | 0.5\% |
| S\&P 1000 Index | Domestic Equity | 0.5\% |
| MSCI All-Country World Ex-U.S. Net | International Equity | (12.4\%) |
| BC Aggregate Bond Index | Fixed Income | 1.6\% |
| Total Absolute Return (1) | Absolute Return | 1.5\% |
| Real Estate (2) | Real Estate | 7.4\% |
| Private Equity (3) | Private Equity | 6.8\% |
| Risk Parity (4) | Risk Parity | 1.1\% |
| Real Return (5) | Real Return | (16.1\%) |
| JPM GBI EM Global Diversified (6) | Emerging Market Debt | (21.5\%) |
| Notes: |  |  |
| (1) Custom benchmark based on HFRI. |  |  |
| (2) Custom benchmark based on NCREIF and Burgiss Private iQ. |  |  |
| (3) Custom benchmark based on Burgiss Private iQ. |  |  |
| (4) Custom benchmark consists of 60\% Standard \& Poor's 500 |  |  |
| Index and 40\% Barclay | Capital U.S. Aggregat | Bond Index. |
| (5) Consists of 50\% Barcla Index and 50\% Dow Jo Index. | s Capital U.S. Treasury es UBS Commodities | U.S. TIPS tal Return |
| (6) Emerging Market Debt (EMD) funded 12/2013. EMD |  |  |
| Source: Texas Education Agency. |  |  |

## ACTIONS OF EIGHTY-FOURTH LEGISLATURE

The Eighty-fourth Legislature, 2015, did not pass any legislation that significantly affected the PSF.

## PERMANENT SCHOOL FUND - GENERAL LAND OFFICE

## FUND PURPOSE

The School Land Board (SLB) and the Commissioner of the Texas General Land Office (GLO) possess the authority to manage the state-owned lands dedicated to the Permanent School Fund (PSF). The funds are managed through the Real Estate Special Fund Account (RESFA) and can be used to acquire real assets as well as protect, maintain and enhance the value of the public school land. The real assets portfolio of the PSF is limited by statute to no more than 15 percent of the fund's total market value.

## FUND CONTRIBUTIONS

Contributions to the RESFA include revenue from school land sales, oil and gas royalties, surface damage fees, return of capital on real assets investments, mineral lease bonus payments, and various other sources. According to GLO, $\$ 1,279.7$ million was added to the RESFA in fiscal year 2015.

## FUND DISTRIBUTIONS

The RESFA distribution to the PSF is authorized annually by SLB. According to GLO, in fiscal year $2015 \$ 150.0$ million was distributed to the PSF.

## INVESTMENT OBJECTIVE

The primary investment objective, according to GLO and SLB, is to pursue a long-term strategy of investing in a variety of real assets to produce gross total returns that exceed the returns on the blended composite benchmark shown in Figure B3. Investment decisions must adhere to the "prudent investor standard."

## INVESTMENT AND OVERSIGHT RESPONSIBILITY

The PSF real estate investment portfolio is managed through a combined effort of SLB, the Investment Advisory Committee (IAC), GLO staff, and external fund managers including a real assets investment advisor. SLB is comprised of the Land Commissioner, an appointee of the Governor and an appointee of the Attorney General. The IAC is comprised of the GLO Deputy Commissioner of Funds Management, the General Counsel, the Deputy Commissioner of Asset Management, the Chief Clerk and a member of SLB.

## PERFORMANCE BENCHMARKS

The benchmark shown in Figure B3 has been identified by GLO for year ending June 30, 2015.

FIGURE B3
PERMANENT SCHOOL FUNDS - GENERAL LAND OFFICE PERFORMANCE BENCHMARKS, FISCAL YEAR 2015

| BENCHMARK NAME | 2015 RATE <br> OF RETURN |
| :--- | :---: |
| 50/50 Blended Composite of: | $8.99 \%$ |
| - NCREIF Fund Index-Open End Equity, gross |  |
| of fees |  |
| - CPI Index-All Urban Consumers plus 74.1 |  |
| basis points |  |
| Source: Texas General Land Office. |  |

## PERCENTAGE OF ASSETS EXTERNALLY MANAGED/ ADVISED

According to GLO, approximately 88 percent of the PSF real estate assets were externally managed in fiscal year 2015. External investment managers manage a portfolio of real assets in limited partnerships. The internally managed portfolio includes direct commercial real estate investments in areas where GLO is the only investor including raw land, industrial, and some mixed-use investments. GLO indicated 100 percent of their cash and short term securities are externally managed by the Comptroller, as required by statute.

## INVESTMENT COSTS

According to GLO, total investment expenses for the year ending June 30, 2015 were $\$ 29.7$ million or 66 basis points ( 0.66 percent) of the ending fund balance. This amount includes $\$ 3.7$ million for direct internal costs, $\$ 0.7$ million in indirect internal expenses, and $\$ 25.2$ million for external costs. Internal investment expenses include cost for personnel and operating expenses relating to portfolio management, fees for legal services, procurement, and financial reporting. External expenses include management and incentive fees per limited partnership agreements. Investment costs for year ending June 30, 2015 were $\$ 24.7$ million, or 0.64 percent of the fund balance.

## ACTIONS OF EIGHTY-FOURTH LEGISLATURE

The Eighty-fourth Legislature, 2015, passed one bill that affects GLO-managed portion of the Permanent School Fund.

House Bill 1551—House Bill 1551 requires SLB to establish a procedure to be used to determine the amount and the date of funds to be transferred from the RESFA to the ASF or to the SBOE for investment in the PSF. SLB would also be required to submit a biannual report on the date and amounts of the transfers.

## EMPLOYEES RETIREMENT SYSTEM - PENSION TRUST FUND

## FUND PURPOSE

The Employees Retirement System of Texas was established by the Texas Legislature in 1947 and is administered in accordance with the Texas Constitution. The agency provides a retirement and disability pension plan for state employees, law enforcement and custodial officers, elected state officials and two classes of judges. The agency administers the trust funds with a fiduciary obligation to the members and retirees of the system who are its beneficiaries. The Employees Retirement System of Texas Plan (ERS), the Law Enforcement and Custodial Officer Supplemental Retirement Plan (LECOS), the Judicial Retirement System of Texas Plan One (JRSI), and the Judicial Retirement System of Texas Plan II (JRS II) are single employer defined benefit pension plans. For investment purposes the trust funds are joined but separate accounting records are maintained.

## FUND CONTRIBUTIONS

Member and state contributions are made to the trust funds as a percent of compensation set by state law. For ERS the Texas Constitution provides that the state contribution may not be less than 6.0 percent nor more than 10.0 percent and the member contribution may not be less than 6.0 percent. The state contribution rate for fiscal year 2015 set by the Eighty-third Legislature, Regular Session, 2013 was 7.5 percent; with an additional 0.5 percent contribution rate from general state agencies. The fiscal year 2015 member contribution rate was set at 6.9 percent.

Members of the LECOS are also members of the ERS. The member contribution rate to LECOS was 0.5 percent in fiscal year 2015 and the state contribution rate was 0.5 percent in fiscal year 2015.

JRS I is a pay as you go plan and there is no trust fund to receive contributions. Member contributions of 6.9 percent in fiscal year 2015 are deposited as unappropriated receipts in the state's general revenue fund. Annuity payments and refunds for this plan are appropriated each biennium therefore the fund has no invested assets. Contributions to JRS II are set by general law and the general appropriations act. In fiscal year 2015, the member contribution rate was 6.9 percent and the state contribution rate was set at 15.663 percent.

According to ERS, total fund contributions in fiscal year 2015 were $\$ 1,015.7$ million, an increase of 5.1 percent from
the fiscal year 2014 total fund contributions of $\$ 966.3$ million.

## FUND DISTRIBUTIONS

Distributions from the pension trust fund are based on benefit payments owed and according to ERS, equaled $\$ 2,237.7$ million in fiscal year 2015, a 4.6 percent increase from the fiscal year 2014 distributions of $\$ 2,139.2$ million.

## INVESTMENT OBJECTIVE

The primary investment objective, outlined by ERS in the CAFR, is to earn a rate of return that ensures payments due to members and their beneficiaries at a reasonable cost to the members of the retirement plan and the taxpayers. The investment policy is structured around maximizing return while maintaining the safety of principal, reducing risk through diversification, and managing costs associated with implementation. The Board of Trustees sets a long-term asset allocation target which is adjusted to meet the needs of the plan and the beneficiaries. Investment decisions must adhere to the duty of care as set forth in the Texas Government Code, Section 815.307.

## INVESTMENT AND OVERSIGHT RESPONSIBILITY

The Board of Trustees of ERS has general responsibility for investment decisions. Six members serve on the board: three members are elected by participating state employees, one member is appointed by the Governor, one is appointed by the chief justice of the Texas Supreme Court, and one member is appointed by the Speaker of the House of Representatives. The board selects external investment managers and appoints an investment advisory committee. The committee members are investment professionals who are required to meet, at least quarterly, to review ERS investments. An independent consultant is also retained to evaluate and analyze investment results.

## PERCENTAGE OF ASSETS EXTERNALLY MANAGED/ADVISED

According to ERS, approximately 62.85 percent of the agency's invested funds were invested by internal staff in fiscal year 2015. For the remaining 37.15 percent, staff receives counsel from various fund advisors.

## EMPLOYEES RETIREMENT SYSTEM - PENSION TRUST FUND (CONTINUED)

## INVESTMENT COSTS

According to ERS, the cost of investing the funds was $\$ 34.2$ million, or 14 basis points ( 0.14 percent) of the ending fund balance for fiscal year 2015. This amount includes $\$ 21.5$ million in direct internal expenses and $\$ 12.7$ million in external investment expenses. Internal investment costs included expenses for materials and supplies, rentals, salaries and wages, professional fees and services, and other operating expenses. External investment expenses do not include the management fees paid for alternative investments. Prior year investment costs were $\$ 36.0$ million or 0.14 percent of the fund balance.

## PERFORMANCE BENCHMARKS

The benchmarks shown in Figure B4 were provided by ERS for fiscal year 2015.

## ACTIONS OF EIGHTY-FOURTH LEGISLATURE

The Eighty-fourth Legislature, 2015, passed several bills affecting the ERS Pension Trust Fund.

House Bill 9—The enactment of House Bill 9 eliminates the 90-day membership waiting period, which authorizes retirement contributions by the state and members to the ERS retirement plan to begin on the first day of employment. The legislation also increases the member contribution rate to the plan from 7.2 percent in fiscal year 2016 and 7.5 percent in fiscal year 2017 to 9.5 percent in each fiscal year for the 2016-17 biennium and afterwards.

House Bill 408-The enactment of HB 408 prevents certain members of the elected class from transferring service earned in the elected class to the employee class, or from retiring from the employee class while still in elected office.

House Bill 1278-The enactment of HB 1278 increases the financial assistance paid to the survivors of certain law enforcement officers, firefighters, and other public employees killed in the line of duty.

| FIGURE B4 <br> EMPLOYEES RETIREMENT SYSTEM - PENSION TRUST FUND, FISCAL YEAR 2015 |  |  |
| :---: | :---: | :---: |
| BENCHMARK | ASSET CLASS | 2015 RATE OF RETURN |
| S\&P 500 | Large Cap | 0.48\% |
| S\&P 600 | Small Cap | 1.80\% |
| S\&P 400 Mid Cap | Mid Cap | 0.01\% |
| S\&P 1500/S\&P 500 Blend | Domestic Equity | 0.49\% |
| MSCI Europe | Europe International | (8.46\%) |
| MSCI Pacific | Asia International | (5.86\%) |
| MSCI Canada | International Canada | (25.31\%) |
| MSCI EAFE | International Global | (7.47\%) |
| MSCI Emerging Markets | Emerging Markets | (22.95\%) |
| MSCI EAFE/MSCI ACWI Ex-U.S. Blended | International Equity | (12.35\%) |
| Barclays U.S. Credit-Intermediate Index | Investment Grade | 1.56\% |
| Barclays Capital U.S. High-Yield Corp./2\% Cap Blend | High Yield | (2.93\%) |
| Barclays Capital Universal/Floating Fixed Income | Fixed Income Total | 1.13\% |
| FTSE EPRA/NAREIT U.S. | Domestic REIT | 0.15\% |
| FTSE EPRA/NAREIT U.S. Global Ex-U.S. | International REIT | (8.13\%) |
| FTSE EPRA/NAREIT Blended Global Real Estate | Global Real Estate | (3.57\%) |
| 91-Day U.S. Treasury Bill | Unallocated Cash | 0.03\% |
| Total Fund Policy Benchmark | GLOBAL TOTAL | (1.03\%) |

Source: Employees Retirement System.

## UNIVERSITY OF TEXAS SYSTEM - PERMANENT UNIVERSITY FUND

## FUND PURPOSE

The Permanent University Fund (PUF) is a public endowment established by the Texas Constitution in 1876. The PUF contributes to the support of most institutions in the University of Texas System (UT System) and the Texas A\&M University System. Distributions from the PUF as well as all surface lease income are deposited in the Available University Fund (AUF) for the benefit of the eligible institutions.

## FUND CONTRIBUTIONS

Mineral and other incomes are added annually to the fund. According to the UT System, $\$ 806.7$ million in income earned by PUF lands were contributed to the PUF during fiscal year 2015. This amount represents a 28.6 percent decrease from the 2014 contribution of $\$ 1,129.7$ million.

## FUND DISTRIBUTIONS

The PUF is a total return fund and amounts from both income as well as changes in asset values may be distributed. PUF distributions are designed to provide a predictable, stable stream of distributions and ensure the inflation adjusted value of distributions is maintained over time. The UT System Board has established an annual distribution to the AUF of 4.75 percent of the prior three years' average net asset value of the PUF. However, for fiscal year 2012, due to a record year of PUF lands' lease sales and the constrained state budget for the current biennium, the UT board increased the annual distribution to an amount equivalent to 5.50 percent of the trailing twelve quarters' average net asset value of the PUF. According to The University of Texas Investment Management Company (UTIMCO), \$763.6 million was distributed to the AUF in fiscal year 2015, a decrease of 13.0 percent from the fiscal year 2014 distribution of $\$ 877.4$ million.

## INVESTMENT OBJECTIVE

According to UTIMCO, the primary investment objective shall be to preserve the purchasing power of fund assets and annual distributions by earning an average annual real return over rolling 10 -year periods or longer at least equal to the target distribution rate of the PUF after all expenses. The objective is dependent on the ability to generate high returns in periods of low inflation that will offset lower returns generated in years when the capital markets under perform
the rate of inflation. Investment decisions must adhere to the "prudent investor" rule.

## INVESTMENT AND OVERSIGHT RESPONSIBILITY

The Texas Constitution assigns responsibility for managing the PUF's lands and investment to the UT System Board of Regents. The PUF's investment manager is UTIMCO. UTIMCO is the first external management corporation formed by a public university. The UTIMCO Board of Directors includes three members of the UT System Board, the chancellor of the UT System, and five outside investment professionals.

## PERCENTAGE OF ASSETS EXTERNALLY MANAGED/ADVISED

According to the UT System, approximately 95.5 percent of the PUF assets were externally managed in fiscal year 2015.

## INVESTMENT COSTS

According to the UT System, total investment expenses were $\$ 52.5$ million, or 30 basis points ( 0.30 percent), of the ending fund balance in fiscal year 2015. This amount includes $\$ 7.3$ million for direct internal costs, $\$ 5.7$ million for indirect internal costs, and $\$ 39.5$ million for external expenses in fiscal year 2015. The investment expenses included costs for management fees and fees related to custodial, auditing, consulting, performance, and risk management. Investment costs for the previous fiscal year were $\$ 52.3$ million or 0.30 percent of the fund balance.

## PERFORMANCE BENCHMARKS

The Endowment Policy Portfolio return is the total index or benchmark return for the PUF. This return is the sum of the weighted benchmark return for each asset class comprising the endowment policy portfolio.

The UT System provided the following benchmark return for PUF. The benchmark below represents the PUF investment policy for the fiscal year ended August 31, 2015:

PUF Policy Benchmark $=-1.37$ percent

## ACTIONS OF EIGHTY-FOURTH LEGISLATURE

The Eighty-fourth Legislature, 2015, did not pass any legislation that significantly affected the PUF.

## UNIVERSITY OF TEXAS SYSTEM - PERMANENT HEALTH FUND

## FUND PURPOSE

The Permanent Health Fund (PHF) is a collection of public endowments to support research and other programs at higher education institutions. The consolidated fund includes the Permanent Health Fund for Higher Education, Permanent Funds for Health-related Institutions, and the University of Texas at El Paso. The Permanent Fund for Higher Education Nursing, Allied Health and Other Health Related Programs, and the Permanent Fund for Minority Health Research and Education were transferred to the Comptroller of Public Accounts (CPA) during fiscal year 2002. The endowments were created with proceeds from the comprehensive tobacco settlement between the State and the tobacco industry.

## FUND CONTRIBUTIONS

Initially $\$ 890.0$ million of endowment corpus was transferred on August 30, 1999, and another $\$ 25.0$ million was transferred during fiscal year 2000. The Permanent Fund for Higher Education Nursing, Allied Health and Other Health Related Programs, and the Permanent Fund for Minority Health Research and Education, totaling $\$ 88.2$ million, were transferred to CPA during fiscal year 2002. No contributions have been made since then.

## FUND DISTRIBUTIONS

The PHF is a total return fund, and distributions from both income as well as capital gains may be distributed. The University of Texas (UT) System Board initially established an annual distribution of 4.5 percent of the beginning value of the PHF. Distributions are increased annually by the average inflation rate, measured by the Consumer Price Index (C.P.I.), provided that the distribution rate remains within a range of 3.5 percent to 5.5 percent of the fund's market value. According to the UT System, $\$ 49.0$ million was transferred to eligible institutions during fiscal year 2015.

## INVESTMENT OBJECTIVE

According to The University of Texas Investment Management Company (UTIMCO), the primary investment objective is to preserve the purchasing power of PHF assets and annual distributions by earning an average annual real return over rolling 10-year periods or longer at least equal to the target distribution rate, plus the annual expected expense. The current target rate is 5.2 percent.

## INVESTMENT AND OVERSIGHT RESPONSIBILITY

The Seventy-sixth Legislature, 1999, designated the UT System Board of Regents as the administrators of the fund. The UT System Board of Regents designated UTIMCO as the investment manager. UTIMCO is the first external management corporation formed by a public university. The UTIMCO Board of Directors includes three members of the UT System Board, the chancellor of the UT System, and five outside investment professionals. The Long Term Fund (LTF) and the PHF are invested in shares of the General Endowment Fund (GEF), an internal mutual fund managed by UTIMCO.

## PERCENTAGE OF ASSETS EXTERNALLY MANAGED/ADVISED

The PHF assets are invested in the UT System GEF. According to the UT System, 96.1 percent of the GEF assets were externally managed in fiscal year 2015.

## INVESTMENT COSTS

According to the UT System, total investment expenses for fiscal year 2015 were $\$ 4.4$ million, or 41 basis points ( 0.41 percent) of the ending fund balance. This amount includes $\$ 0.5$ million in direct internal investment expenses $\$ 0.6$ million in indirect internal investment expenses, and a $\$ 3.3$ million allocation from the GEF. The investment expenses included costs for management fees, custodian services and audit fees. Investment costs for fiscal year 2014 were $\$ 3.9$ million, or 0.35 percent of the fund balance.

## PERFORMANCE BENCHMARKS

The PHF assets are invested in the GEF. The Endowment Policy Portfolio return is the total index or benchmark return for the GEF. This return is the sum of the weighted benchmark return for each asset class comprising the endowment policy portfolio.

The UT System provided the following benchmark return for the PHF in fiscal year 2015:

PHF Policy Benchmark $=-1.37$ percent

## ACTIONS OF EIGHTY-FOURTH LEGISLATURE

The Eighty-Fourth Legislature, 2015, did not pass any legislation that significantly affected the Permanent Health Fund.

## COMPTROLLER OF PUBLIC ACCOUNTS - TOBACCO SETTLEMENT PERMANENT TRUST FUND

## FUND PURPOSE

The Tobacco Settlement Permanent Trust (TSF) is an endowment to support counties with unreimbursed healthcare expenditures. The Seventy-sixth Legislature, 1999, established the endowment with proceeds from the comprehensive tobacco settlement between the State and the tobacco industry. Although the Comptroller of Public Accounts (CPA) manages the investments, the endowment is classified as a private purpose trust fund.

## FUND CONTRIBUTIONS

The initial contribution of tobacco settlement proceeds was made on March 1, 2000. According to CPA, $\$ 1.683$ billion was contributed to the fund through fiscal year 2003. No additional contributions are anticipated.

## FUND DISTRIBUTIONS

The TSF is a total return fund and distributions may be made from both income as well as growth in asset values. The investment advisory committee (described below) has approved, and CPA has adopted, a distribution rule set forth in the Texas Administrative Code, Title 34, Part 1, Chapter 18, Section 18.2. The rule is designed to meet the investment objective of the trust (described below). According to CPA, $\$ 55.0$ million was distributed during fiscal year 2015.

## INVESTMENT OBJECTIVE

The primary investment objective, according to CPA, is to provide a predictable, stable stream of distributions and to preserve the purchasing power of fund assets and annual distributions by earning an average annual total return, after inflation, of 5.0 percent over rolling 10-year periods or longer. Investment decisions must adhere to the "prudent investor" rule.

## INVESTMENT AND OVERSIGHT RESPONSIBILITY

CPA, through the Texas Treasury Safekeeping Trust Company, is responsible for management and oversight of the fund. An investment advisory committee composed of members from participating entities advises CPA and approves rules governing CPA's duties and responsibilities for the investment of and distributions from the fund. The advisory committee is composed of 11 appointed members. The Comptroller appoints one member. One member is appointed by the political subdivision that, in the year
preceding the appointment, received the largest annual distribution paid from the account. The political subdivision that received the second largest annual distribution paid from the account appoints one member. Four members are appointed by the Texas Conference of Urban Counties from subdivisions that received the third through the twelfth largest annual distributions in the preceding year. The County Judges and Commissioners Association of Texas, the North and East Texas County Judges and Commissioners Association, the South Texas County Judges and Commissioners Association, and the West Texas County Judges and Commissioners Association each appoint one member.

## PERCENTAGE OF ASSETS EXTERNALLY MANAGED/ADVISED

According to CPA, 100 percent of the fund's assets are externally managed.

## INVESTMENT COSTS

According to CPA, total investment expenses for fiscal year 2015 were $\$ 8.0$ million, or 35 basis points ( 0.35 percent) of the ending fund balance. This amount includes $\$ 5.8$ million for direct internal costs and $\$ 2.2$ million for external costs. Internal and external investment expenses included costs for salaries, consulting and auditing services, IT systems, compliance monitoring, overhead, risk management services, reporting and investment accounting, and management services. The investment costs for fiscal year 2014 were $\$ 6.2$ million or 0.26 percent of the fund balance.

## PERFORMANCE BENCHMARKS

CPA provided the breakdown of the policy benchmark (Figure B5). The total fund benchmark was -1.12 percent in fiscal year 2015.

COMPTROLLER OF PUBLIC ACCOUNTS - TOBACCO SETTLEMENT PERMANENT TRUST FUND (CONTINUED)

| FIGURE B5 COMPTROLLER OF PUBLIC ACCOUNTS - TOBACCO SETTLEMENT PERMANENT TRUST FUND PERFORMANCE BENCHMARKS FISCAL YEAR 2015 |  |  |  |
| :---: | :---: | :---: | :---: |
| STRATEGY | TARGET PERCENTAGE | BENCHMARK | 2015 RETURN OF BENCHMARK |
| Fixed Income | 35\% | Allocation Range: 20\% to 50\% | 0.03\% |
| Global Fixed Income | 10\% | 9\% Barclays Capital Multiverse Bond Index; 1\% 90-Day T-bill | (5.95\%) |
| Alternative Fixed Income | 20\% | HFRI FOF: Conservative Index | 1.92\% |
| Private Debt | 5\% | SSPEI - Private Debt Index | 5.04\% |
| Equity | 45\% | Allocation Range: $30 \%$ to 60\% | (0.13\%) |
| Global Public Equity | 15\% | MSCI All Country World Index Net Index | (6.11\%) |
| Hedged Equity | 20\% | HFRI FOF: Strategic Index | 0.44\% |
| Private Equity | 10\% | SSPEI - Private Equity Index | 7.62\% |
| Real Assets | 20\% | Allocation Range: 10\% to 30\% | (5.5\%) |
| Stable Value Real Estate | 5\% | NCREIF NFI-ODCE | 12.4\% |
| Enhanced Real Estate | 5\% | Cambridge Associates Real Estate Fund Index | 13.22\% |
| Global Inflation Protected Securities | 3\% | Barclays Capital World Inflation-Linked Index | (5.42\%) |
| Natural Resources | 7\% | $5 \%$ Dow Jones UBS Commodity Index; 1\% MSCI World Energy Index; 1\% MSCI World Materials Index | (27.68\%) |
| All Asset Strategies | 0\% | 0\% to 10\% | (1.12\%) |
| Risk Parity, Tactical Asset Allocation, Multistrategy | 0\% | Total Endowment Benchmark | (1.12\%) |

Source: Texas Comptroller of Public Accounts.

## TEXAS GUARANTEED TUITION PLAN FUND

## FUND PURPOSE

The Texas Guaranteed Tuition Plan (TGTP) (formerly the Texas Tomorrow Fund) is a fully guaranteed prepaid tuition program, which began in January 1996. Currently the Texas Prepaid Higher Tuition Board has closed the Texas Guaranteed Tuition Plan Fund for enrollment. The plan currently accepting enrollment, The Texas Tuition Promise Fund, went into effect September 1, 2008. The board's plan manager, OFI Private Investments, Inc., has invested the assets of the plan in accordance with the investment policy statement adopted by the board.

## FUND CONTRIBUTIONS

Existing member contributions are added annually to the Texas Guaranteed Tuition Plan fund. In fiscal year 2015, investment income resulted in a gain of $\$ 10.2$ million to the fund. According to the TGTP, investment income combined with an $\$ 87.7$ million appropriation from the Eighty-fourth Legislature, $\$ 375,000$ of other income, negative $\$ 8.7$ million actuarial change in future contract collections, and negative $\$ 8.8$ million in contract payments net of refunds of contract principal to result in a total fund contribution of $\$ 80.7$ million in fiscal year 2015.

## FUND DISTRIBUTIONS

According to TGTP, $\$ 158.6$ million was distributed to colleges for tuition payments during fiscal year 2015. An additional $\$ 1.6$ million was distributed for administrative expenses and $\$ 22.3$ million of earnings on cancelled mature contracts was refunded to contract purchasers. Combined with a $\$ 136.1$ million actuarial decrease in the value of future contract benefits, fund distributions totaled $\$ 46.4$ million in fiscal year 2015.

According to TGTP's 2015 Actuary's Report on Program Soundness, the liabilities of the Plan exceed the value of assets as of August 31, 2015, by $\$ 535.5$ million, a decrease of $\$ 32.7$ million from the fiscal year 2014 unfunded liability of \$568.2 million. The funded ratio of the plan is 65.2 percent. Based on actuarial assumptions for expected income and disbursements, TGTP is projected to run out of cash to pay benefits in fiscal year 2020.

## INVESTMENT OBJECTIVE

According to the TGTP, the investment objective is to accumulate sufficient funds to fully meet current and future
obligations to fund participants. To meet this goal, the board has developed four general objectives: preserve the purchasing power of the fund by achieving investment earnings in excess of inflation; protect the fund principal from market value erosion; keep return volatility low by employing prudent fund diversification; and invest assets in compliance with the "prudent person" standard.

## INVESTMENT AND OVERSIGHT RESPONSIBILITY

The Texas Prepaid Higher Education Tuition Board directs the investment policies that are carried out by investment managers. The board is chaired by the Comptroller and includes two members appointed by the Governor and four members appointed by the Lieutenant Governor. At least two of the Lieutenant Governor's appointees are from a list of persons recommended by the speaker of the House of Representatives.

## PERCENTAGE OF ASSETS EXTERNALLY MANAGED/ADVISED

According to the TGTP, 100 percent of the fund's assets are externally managed.

## INVESTMENT COSTS

According to the TGTP, the costs of investing the fund for fiscal year 2015 were $\$ 1.7$ million, or 17 basis points ( 0.17 percent) of the ending fund balance. This amount consists entirely of external investment expenses and includes securities lending fees. The investment costs for fiscal year 2014 were $\$ 2.1$ million or 0.19 percent of the fund balance.

## PERFORMANCE BENCHMARKS

The TGTP provided the following benchmarks for fiscal year 2015 (Figure B6). The total fund benchmark was 0.9 percent in fiscal year 2015.

## ACTIONS OF EIGHTY-FOURTH LEGISLATURE

House Bill 2—House Bill 2 appropriated $\$ 87.6$ million in General Revenue Funds for fiscal year 2015 to deposit in the TGTP for the purpose of decreasing the unfunded liability of the fund.

## TEXAS GUARANTEED TUITION PLAN FUND (CONTINUED)

| FIGURE B6 |  |  |
| :--- | :--- | :---: |
| TEXAS GUARANTEED TUITION PLAN FUND PERFORMANCE BENCHMARKS |  |  |
| FISCAL YEAR 2015 | ASSET CLASS | 2015 RATE OF RETURN |
| BENCHMARK NAME | U.S. Equity | $0.29 \%$ |
| Dow Jones U.S. Total Stock Market Index | U.S. Equity | $0.48 \%$ |
| S\&P 500 Index | U.S. Equity | $4.26 \%$ |
| Russell 1000 Growth Index | U.S. Equity | $(3.48 \%)$ |
| Russell 1000 Value Index | U.S. Equity | $0.03 \%$ |
| Russell 2000 Index | Non-U.S. Equity | $(7.47 \%)$ |
| MSCI EAFE Index | Non-U.S. Equity | $1.35 \%$ |
| MSCI All Country Ex-U.S. Local Net | Fixed Income | $1.56 \%$ |
| Barclays Capital Aggregate Bond Index | Fixed Income | $(2.93 \%)$ |
| Barclays Capital Corporate High Yield Bond Index | Fixed Income | $(11.74 \%)$ |
| Citigroup WGBI | Fixed Income | $0.98 \%$ |
| S\&P Leveraged Loan Index | Fixed Income | $(2.73 \%)$ |
| Barclays Capital U.S. TIPS Index | Cash | $0.00 \%$ |
| U.S. Treasury Bills |  |  |
| Source: Texas Guaranteed Tuition Plan Fund. |  |  |

## COMPTROLLER OF PUBLIC ACCOUNTS - PERMANENT PUBLIC HEALTH FUND

## FUND PURPOSE

The Permanent Public Health Fund (PPHF) is a collection of public endowments to support state-administered healthrelated programs. The consolidated fund includes the Permanent Tobacco Education and Enforcement Fund, the Permanent Children and Public Health Fund, the Permanent EMS and Trauma Care Fund, the Permanent Rural Health Facility Capital Fund, and the Permanent Small Urban Hospitals Funds. The endowments were created with proceeds from the comprehensive tobacco settlement between the State and the tobacco industry.

## FUND CONTRIBUTIONS

Initially, $\$ 475.0$ million of tobacco settlement proceeds were contributed in fiscal year 2000. No additional tobacco proceeds have been added to the fund.

## FUND DISTRIBUTIONS

The PPHF is a total return fund and distributions may be made from both income as well as growth in asset values. The annual distributions are determined by the Comptroller of Public Accounts (CPA). Annual distributions, paid quarterly, are calculated as 4.5 percent of the twenty-quarter movingaverage value of the PPHF as of June 30 for the following fiscal year. The annual distributions may not exceed 7 percent of the average net fair market value of the investment assets of the fund. According to CPA, $\$ 21.6$ million was distributed during fiscal year 2015. Of this amount, $\$ 12.5$ million was distributed to the accounts listed above to fund the relevant programs and $\$ 9.1$ million was distributed to CPRIT to pay debt service.

## INVESTMENT OBJECTIVE

The primary investment objective, according to CPA, is to provide a predictable, stable stream of distributions and to preserve the purchasing power of each fund's assets and annual distributions by earning an average annual total return, after inflation, of 5 percent over rolling 10-year periods or longer. Investment decisions must adhere to the prudent investor rule.

## INVESTMENT AND OVERSIGHT RESPONSIBILITY

CPA, through the Texas Treasury Safekeeping Trust Company, is responsible for management and oversight of the fund.

## PERCENTAGE OF ASSETS EXTERNALLY MANAGED/ADVISED

According to CPA, 100 percent of the fund assets are externally managed.

## INVESTMENT COSTS

According to CPA, the costs of administrating the fund for fiscal year 2015 were $\$ 1.1$ million, or 36 basis points ( 0.36 percent) of the ending fund balance. Internal and external investment expenses included costs for consulting, auditing, IT systems, compliance monitoring, overhead, risk management, reporting, investment accounting, investment management, and fees paid to money managers and custodians. Investment costs for fiscal year 2014 were $\$ 1.0$ million or 0.28 percent of the fund balance.

## PERFORMANCE BENCHMARKS

CPA provided the following benchmarks for fiscal year 2015 (Figure B7). The total fund benchmark was -1.12 percent in fiscal year 2015.

## ACTIONS OF EIGHTY-FOURTH LEGISLATURE

The Eighty-fourth Legislature, 2015, did not pass any legislation that significantly affected the Permanent Public Health Fund.

COMPTROLLER OF PUBLIC ACCOUNTS - PERMANENT PUBLIC HEALTH FUND (CONTINUED)

| FIGURE B7 |  |  |  |
| :---: | :---: | :---: | :---: |
| COMPTROLLER OF PUBLIC ACCOUNTS - PERMANENT PUBLIC HEALTH FUND PERFORMANCE BENCHMARKS |  |  |  |
| FISCAL YEAR 2015 |  |  |  |
|  | target |  | 2015 RETURN OF |
| StRATEGY | PERCENTAGE | BENCHMARK | BENCHMARK |
| Fixed Income | 35\% | Allocation Range: 20\% to 50\% | 0.03\% |
| Global Fixed Income | 10\% | 9\% Barclays Capital Multiverse Bond Index; 1\% 90Day T-bill | (5.95\%) |
| Alternative Fixed Income | 20\% | HFRI FOF: Conservative Index | 1.92\% |
| Private Debt | 5\% | SSPEI - Private Debt Index | 5.04\% |
| Equity | 45\% | Allocation Range: $30 \%$ to 60\% | (0.13\%) |
| Global Public Equity | 15\% | MSCI All Country World Index Net Index | (6.11\%) |
| Hedged Equity | 20\% | HFRI FOF: Strategic Index | 0.44\% |
| Private Equity | 10\% | SSPEI - Private Equity Index | 7.62\% |
| Real Assets | 20\% | Allocation Range: 10\% to 30\% | (5.50\%) |
| Stable Value Real Estate | 5\% | NCREIF NFI-ODCE | 12.40\% |
| Enhanced Real Estate | 5\% | Cambridge Associates Real Estate Fund Index | 13.22\% |
| Global Inflation Protected Securities | 3\% | Barclays Capital World Inflation Linked Bond Index | (5.42\%) |
| Natural Resources | 7\% | 5\% Dow Jones UBS Commodity Index; 1\% MSCI World Energy Index; 1\% MSCI World Materials Index | (27.68\%) |
| All Asset Strategies | 0\% | 0\% to 10\% | (1.12\%) |
| Risk Parity, Tactical Asset Allocation, Multistrategy | 0\% | Total Endowment Benchmark | (1.12\%) |

Source: Texas Comptroller of Public Accounts.

## COMPTROLLER OF PUBLIC ACCOUNTS - NATIONAL RESEARCH UNIVERSITY FUND

## FUND PURPOSE

On November 3, 2009, Texas voters approved Proposition 4, adding Article VII, Section 20, to the Texas Constitution which established the National Research University Fund (NRUF). Proposition 4 and the enabling legislation, House Bill 51, Eighty-first Legislature, Regular Session, 2009 also transferred the corpus of the Permanent Higher Education Fund (originally intended to be an endowment fund supporting higher education institutions not eligible for distributions from the Permanent University Fund) to the NRUF. The purpose of the NRUF is to provide a dedicated, independent, and equitable source of funding to enable emerging research universities in Texas to achieve national prominence as major research universities.

## FUND CONTRIBUTIONS

On January 1, 2010 all assets from the Permanent Higher Education Fund, $\$ 546.3$ million, were transferred to the NRUF. No additional contributions have been made to the NRUF since this date.

## FUND DISTRIBUTIONS

The Higher Education Coordinating Board is tasked with developing rules for determining the eligibility of institutions to receive money from the NRUF and certifying in each even numbered year which institutions have satisfied those standards. Article VII, Section 20(f) stipulates that the amount appropriated from the fund in any fiscal year may not exceed 7 percent of the average net fair market value of the investment assets of the fund. As of August 2015, Texas Tech University and University of Houston are the only emerging research universities eligible to receive NRUF distributions. Distributions of $\$ 18.3$ million were made from the NRUF in fiscal year 2015, up 3.6 percent from the fiscal year 2014 distributions of $\$ 17.6$ million.

## INVESTMENT OBJECTIVE

The investment objective of the NRUF is to earn a long-term annual rate of return of 8 percent to: provide a predictable, stable stream of distributions, ensure that the inflationadjusted value of distributions is maintained over the long term, and ensure that the inflation-adjusted value of the corpus after distributions is maintained over the long term.

## INVESTMENT AND OVERSIGHT RESPONSIBILITY

CPA, through the Texas Treasury Safekeeping Trust Company, is responsible for management and oversight of the fund.

## PERCENTAGE OF ASSETS EXTERNALLY MANAGED/ADVISED

According to CPA, 100 percent of the fund assets are externally managed.

## INVESTMENT COSTS

According to CPA, the costs of administrating the fund for fiscal year 2015 were $\$ 2.3$ million, or 35 basis points ( 0.35 percent) of the ending fund balance. Direct internal expenses were $\$ 1.7$ million and external investment expenses were $\$ 0.6$ million in fiscal year 2015. Internal and external investment expenses included costs for consulting, auditing, IT systems, compliance monitoring, overhead, risk management, reporting, investment accounting, investment management, and fees paid to money managers and custodians. Investment costs for fiscal year 2014 were $\$ 1.8$ million or 0.26 percent of the fund balance.

## PERFORMANCE BENCHMARKS

CPA provided the following benchmarks for fiscal year 2015 (Figure B8). The total fund benchmark was -1.12 percent in fiscal year 2015.

## ACTIONS OF EIGHTY-FOURTH LEGISLATURE

The Eighty-fourth Legislature, 2015, did not pass any legislation that significantly affected the NRUF.

## COMPTROLLER OF PUBLIC ACCOUNTS - NATIONAL RESEARCH UNIVERSITY FUND (CONTINUED)

| COMPTROLLER OF PUBLIC ACCOUNTS - NATIONAL RESEARCH UNIVERSITY FUND PERFORMANCE BENCHMARKS FISCAL YEAR 2015 |  |  |  |
| :---: | :---: | :---: | :---: |
|  | target |  | 2015 RETURN OF |
| STRATEGY | PERCENTAGE | BENCHMARK | BENCHMARK |
| Fixed Income | 35\% | Allocation Range: 20\% to 50\% | 0.03\% |
| Global Fixed Income | 10\% | 9\% Barclays Capital Multiverse Bond Index; 1\% 90Day T-bill | (5.95\%) |
| Alternative Fixed Income | 20\% | HFRI FOF: Conservative Index | 1.92\% |
| Private Debt | 5\% | SSPEI - Private Debt Index | 5.04\% |
| Equity | 45\% | Allocation Range: 30\% to 60\% | (0.13\%) |
| Global Public Equity | 15\% | MSCI All Country World Index Net Index | (6.11\%) |
| Hedged Equity | 20\% | HFRI FOF: Strategic Index | 0.44\% |
| Private Equity | 10\% | SSPEI - Private Equity Index | 7.62\% |
| Real Assets | 20\% | Allocation Range: $10 \%$ to $30 \%$ | (5.50\%) |
| Stable Value Real Estate | 5\% | NCREIF NFI-ODCE | 12.40\% |
| Enhanced Real Estate | 5\% | Cambridge Associates Real Estate Fund Index | 13.22\% |
| Global Inflation Protected Securities | 3\% | Barclays Capital World Inflation Linked Bond Index | (5.42\%) |
| Natural Resources | 7\% | 5\% Dow Jones UBS Commodity Index; 1\% MSCI World Energy Index; 1\% MSCI World Materials Index | (27.68\%) |
| All Asset Strategies | 0\% | 0\% to 10\% | (1.12\%) |
| Risk Parity, Tactical Asset Allocation, Multistrategy | 0\% | Total Endowment Benchmark | (1.12\%) |
| Source: Texas Comptroller of Public Accounts. |  |  |  |

## APPENDIX C. GLOSSARY

## ACTIVE PORTFOLIO STRATEGY

A money-management approach based on informed, independent investment judgment as opposed to passive management (indexing). It attempts to outperform a benchmark index.

## ALTERNATIVE INVESTMENTS

Investment opportunities which have not been identified by traditional public or fixed income capital markets. Also may be defined as private, nontraditional, illiquid investments. Alternative investments are accomplished almost exclusively through private offerings of debt equity interest, and are often made through entities organized as limited partnerships. Examples of alternative investments include international and emerging market stocks, hedge funds, event driven strategies, as well as illiquid equity investments such as venture capital, mezzanine financing, private equity and buyout investing, real estate, and oil and gas.

## ASSET ALLOCATION

The process of diversifying an investment portfolio among asset classes (stocks, bonds, real estate, etc.) to achieve a particular investment objective. Asset allocation is used to anticipate the long-term future direction of markets and to deploy assets in a way that will result in superior performance in the context of acceptable risks. Studies have shown that asset allocation has a far greater effect on investment performance than does the selection of investment managers or the selection of individual securities.

## BASIS POINT (BP)

The smallest measure used in quoting investment performance or fees. One basis point is $1 / 100$ th of one percent. Thus, 100 basis points equals one percent. A bond's yield that increased from 8.00 percent to 8.50 percent would be said to have risen 50 basis points. A management fee of 25 basis points represents 0.25 percent of value of the assets managed.

## BENCHMARK

A reference that serves as a standard by which others may be measured. In the investment environment, the benchmark may be a common economic or financial index, such as the

Consumer Price Index or the Standard \& Poor's 500 (S\&P 500) Index.

## BONDS

Contract to pay specified sum of money (the principal or face value) at a specified future date (maturity) plus interest paid at an agreed percentage of the principal. Maturity is usually longer than one year. The relationship between the bondholder and issuer of the bonds is that of creditor and debtor. Thus, the holder has no corporate ownership privileges as stockholders do.

## BROKER

A person who acts as an intermediary between a buyer and seller, usually charging a commission.

## CASH EQUIVALENTS

Investment instruments have such high liquidity and safety that they are virtually as good as cash. They typically have a short maturity. Examples include a money market fund, Treasury Bills, and investments in a custodian bank's short term investment fund (STIF) or similar fund. Such securities help minimize risk during volatile market periods as well as to provide cash flow.

## COLLATERALIZED MORTGAGE OBLIGATION (CMO)

A security created using the underlying cash flows from mortgage-backed securities as collateral. A CMO shifts the uncertainty regarding the exact timing of principal return in a mortgage-backed security. This uncertainty exists because the timing of mortgage-backed principal payments is influenced by changes in interest rates, the current economic climate, and the geographic makeup of loans.

## COMMON STOCK

Share in a public company or a privately held firm. Common stockholders typically have voting and dividend rights. In the event of corporate bankruptcy or other liquidation of assets, common stockholders are paid after secured and unsecured creditors, bond holders, and preferred stockholders.

## CORPUS

The principal of a fund or estate as distinct from income or interest.

## CREDIT RISK

The likelihood that a party involved in an investment transaction will not fulfill its obligations. This type of risk is often associated with the issuer of the investment security and is affected by the concentration of deposits or investments in a single instrument or with a single institution.

## CUSTODIAN BANK

Used by an entity with large investment holdings to hold securities, record transactions, and collect interest or dividends from investments. The custodian bank is sometimes referred to as the primary or master custodian because it obtains the services of subcontractors and agencies to actually hold and trade the securities.

## DERIVATIVES

A contact or financial arrangement whose value is based on the performance of an underlying financial asset, index, or other investment. Derivatives are available based on the performance of assets, interest rates, currency exchange rates, and various domestic and foreign indexes.

## DIVERSIFICATION

The spreading of risk by investing in several individual investments or categories of investments, such as stocks, bonds, cash equivalents, and real estate.

## DURATION

A concept that measures bond price volatility by measuring the "length" of a bond. It is a weighted average term to maturity of the bond's cash flows, the weights being the present value of each cash flow as a percentage of the bond's full price. The greater the duration of a bond, the greater its percentage price volatility. In general, duration rises with maturity, falls with the frequency of coupon payments, and falls as the yield rises.

## ENDOWMENT

Funds given to an entity, such as a college or university, with donor-imposed restrictions that the funds are not to be expended but are to be invested for purpose of producing income.

## EQUITY INVESTMENT

Ownership interest processed by shareholders in a corporation.

## EXTERNAL MANAGER

A person or firm that makes investment portfolio decisions and executes transactions independently, subject to the overall restrictions agreed upon by contract between the fiduciary for the fund and the external manager.

## FIXED INCOME INVESTMENTS

A security that pays a fixed rate of return in the form of interest or dividends, over a specified period and includes government, corporate, and municipal bonds, preferred stocks, and certain mortgage investments. This asset class is expected to provide regular, predictable income and greater stability of market value than available from equity investments. It is advantageous in times of low inflation, but does not protect holders against erosion of buying power in times of rising inflation because interest or dividend payments do not increase.

## GENERAL PARTNER

Member of a partnership who is jointly and severally liable for all debts incurred by the partnership; or a managing partner of a limited partnership who is in charge of its operations. A general partner has unlimited liability.

## HEDGE/HEDGING

A strategy used to offset investment risk. A perfect hedge is one eliminating the possibility of future gain or loss.

## HEDGE FUND

A hedge fund is typically set up as a private investment partnership that is open to a limited number of investors. The portfolios are typically managed more aggressively and rely on advanced investment strategies to generate high returns. Hedge Funds are not regulated by the Securities and Exchange Commission (SEC).

## INDEMNIFICATION

An agreement to compensate another party for damage or loss. In securities lending programs, the program administrator may agree to indemnify the lender of securities for any losses caused by the failure of the borrower to return borrowed securities.

## INDEX

A statistical composite that measures changes in the economy or in financial markets, often expressed in percentage changes from a base period. For example, the Consumer Price Index, which is composed of the prices of key goods and services, moves up or down as the rate of inflation changes. Other indexes measure the ups and downs of the stock, bond, and other investment markets. Common indexes include the New Your Stock Exchange Index, Standard \& Poor 500 Index, and the Shearson Lehman Aggregate Bond Index.

## INVESTMENT ADVISOR

A person or service retained by the investing entity to provide investment advice for a fee. The advisors may present economic information such as expected changes in interest rates, current and future national or global economic growth, and other factors that may affect the economy in the future. Investment advisors also present industry information that may affect future decisions in selecting specific securities. The advisor may specialize in a particular kind of investment, such as emerging growth stocks or international stocks.

## LARGE/MEDIUM/SMALL CAPS

Stocks of companies with market capitalization of $\$ 500$ million or less are small caps. Such stocks generally represent companies that are less well established, but are often faster growing than mid-caps (market capitalization of $\$ 500$ million to $\$ 3$ billion to $\$ 5$ billion) or large caps ( $\$ 1$ billion or more). Small caps are often more volatile than stocks of more well-established companies.

## LEVERAGED BUYOUT

Equity investments in public or private companies that result in the purchase of a significant portion or majority control of the company.

## LIQUIDITY

The ease with which an asset can be converted to money. Also, the ability to buy or sell an asset quickly and in large volume without substantially affecting the price.

## MARKET RISK

The risk that the value of a security will rise or decline as a result of changes in market conditions.

## MATURITY

The date on which a debt's principal is to be repaid.

## MEZZANINE FINANCING

Investment in the subordinated debt of privately owned companies. The debt holder participates in equity appreciation through conversion features such as rights, warrants, or options.

## MERRILL LYNCH 90-DAY U.S. TREASURY BILL INDEX

A benchmark which assumes that treasury bills are bought at the beginning of a period at market value and held to maturity. Upon maturity, it is assumed that additional bills are purchased at market value and again held until maturity. The rollover continues until the end of the period. The calculation includes the sum of the yields earned by the treasury bills.

## MODERN PORTFOLIO THEORY

An investment decision approach that permits an investor to classify, estimate, and control both the kind and the amount of expected risk and return. Portfolio theory quantifies the relationship between risk and return and assumes that investors must be compensated for assuming risk. It departs from traditional security analysis by determining the statistical relationships among securities comprising the overall portfolio rather than analyzing the characteristics of individual investments.

## MUTUAL FUND

Portfolio of securities professionally managed by the sponsoring management company or investment company that issues shares to investors. The major advantages of mutual funds are diversification, professional management, and ownership of a variety of securities with a minimal capital investment.

## PASSIVE PORTFOLIO STRATEGY

A money-management strategy that seeks to match rather than outperform return and risk characteristics of a market segment or index, by mirroring its composition.

## PEER GROUP

One group that is of equal standing with another group. In comparing an investment fund's performance with its peers, the peer group should include other funds with similar characteristics, such as fund size, purpose, and investment restrictions.

## PORTFOLIO

A combined holding of more than one investment. The purpose of a portfolio is to reduce risk by diversification.

## PRIVATE INVESTMENTS

Investment opportunities, which have not been identified by traditional capital markets. Typically, more volatile than traditional securities, private investments require strong due diligence controls.

## PRIVATE PLACEMENT

A securities issuance, which is exempt from registration requirements of the Securities Act of 1933. It generally involves the sale of stocks, bonds, or other investments directly to an institutional investor.

## PRUDENT INVESTOR STANDARD

This standard provides that a board or other fiduciary in making investments, may acquire or retain any kind of investment that prudent investors, exercising reasonable care, skill, and caution, would acquire or retain in light of the purposes, terms, distribution requirements, and other circumstances of the fund then prevailing, taking into consideration the investment of all the assets of the fund rather than a single investment. Generally, this standard assumes that the board or other fiduciary has investment knowledge and expertise, and provides broader investment authority than the prudent person standard.

## PRUDENT PERSON STANDARD

A concept born from the 1830 Massachusetts court decision of Harvard College v. Armory that described the duty owned by a trustee to beneficiaries: "All that can be required of a trustee to invest is, that he shall conduct himself faithfully and exercise sound discretion. He is to observe how men of prudence, discretion, and intelligence manage their own affairs, not in regard to speculation, but in regard to the permanent disposition of their funds, considering the probable income, as well as the probable safety of the capital to be invested."

## RISK

In exchange for a return on investment, the investor may expose assets to possible losses. Risk is the probability or possibility of such losses. Risk is also often defined in terms of market volatility, or standard deviations of returns. The standard deviation is a statistical measure of portfolio risk, which reflects the average deviation of observations from
their sample mean. It is used as an estimate of risk because it measures how wide the range of returns typically is. The wider the range of returns, the higher the portfolio risk.

## S\&P 500

An index, which measures the performance of the common stock of 500 of the largest U.S. corporations. The S\&P 500 represents the aggregate market value changes relative to a base period of 500 stocks primarily traded on the New York Exchange.

## S\&P 1500

The S\&P 1500 Composite Index, which measures the performance of the top 1500 U.S. companies.

## SECURITIES LENDING

A program in which institutional investors transfer their securities to broker-dealers and other borrowers in exchange for collateral and a promise by the borrower to return the identical securities. The collateral may consist of cash, securities, or letters of credit. The lender agrees to the collateral to the borrower upon maturity of the loan and return of the borrowed securities.

## TIME-WEIGHTED RATE OF RETURN

The total rate of return on an investment adjusted to eliminate the effect of timing of cash flows due to contributions and withdrawals, which are not controllable by investment managers.

## TOTAL RETURN

The annual return on an investment including appreciation and interest or dividends. A "total return fund" is one that is indifferent to whether the return is generated by appreciation or ordinary income because it can spend from both categories.

## TRANCHE

A class into which a multi-class security, such as collateralized mortgage obligation (CMO) is split. The different tranches of a CMO, which may range from a fast-pay class to longterm slow-pay class, are designed to meet different investor objectives for portfolio diversification.

## VENTURE CAPITAL

Venture capital is an important source of financing for startup companies or other embarking on a new or turnaround ventures that entail some investment risk but offer the potential for above average future profits. Sources of venture
capital include wealthy individual investors, subsidiaries of banks and other corporations organize as small business investment companies: groups of investment banks and other financing sources that pool investments in venture capital funds or venture capital limited partnerships. Some venture capital sources invest only at a certain stage of entrepreneurship, such as the start-up or seed money stage, the first round or second round phases that follow, or at the mezzanine level immediately preceding an initial public offering. In return for taking an investment risk, the venture capitalists are usually rewarded with some combination of profits, preferred stock, royalties on sales, and capital appreciation of common shares.

## VOLATILITY

The extent to which a security or market tends to rise or fall sharply in price within short-term period.

## YIELD

The annual return on investment (from dividends or interest) expressed as a percentage of either cost or current price. Yield is one component of return.

## APPENDIX D. REFERENCES

The following investing agencies and institutions of higher education provided information contained in this Annual Report on Major State Investment Funds:

- Teacher Retirement System (TRS)
- Permanent School Fund, General Land Officecontrolled portion (PSF-GLO)
- Permanent School Fund, Texas Education Agencycontrolled portion (PSF-TEA)
- Employees Retirement System (ERS)
- The University of Texas System (UT System)
- The University of Texas System Permanent University Fund (PUF)
- The University of Texas System Permanent Health Fund (PHF)
- Texas Comptroller of Public Accounts (CPA)
- Tobacco Settlement Permanent Trust (TSF), provided by CPA
- Texas Guaranteed Tuition Plan Fund (TGTP), provided by CPA
- Permanent Public Health Fund (PPHF), provided by CPA
- Permanent Higher Education Fund (NRUF), provided by CPA

Remittances of original data from agencies and institutions of higher education for this report are attached.

## ORIGINAL DATA FROM AGENCIES AND INSTITUTIONS OF HIGHER EDUCATION

ATTACHMENT 1. TEACHER RETIREMENT SYSTEM TRUST FUND INPUT WORKSHEET
MARKET
VALUE OF
FUND YEAR
ENDING AUG.
31,2015
IN MILLIONS
$\$ 127.943$

Total Fund
\$127,943

|  |  | FISCAL YEAR |  |
| :--- | :---: | :---: | :---: |
|  | FISCAL YEAR | FISCAL YEAR | 2015 |
|  | 2015 TIME | 2015 TIME | BENCHMARK |
|  | WEIGHTED | WEIGHTED | ADJUSTED |
|  | GROSS FUND | NET FUND | GROSS FUND |
| Total Fund | RETURN | RETURN | RETURN |
|  | $(0.14 \%)$ | $(0.27 \%)$ | $(0.76 \%)$ |


|  | FISCAL YEAR 2015 (GROSS) | FISCAL YEAR 2015 (NET) | $\begin{gathered} \text { FISCAL YEAR } \\ 2014 \end{gathered}$ | $\begin{gathered} \text { FISCAL YEAR } \\ 2013 \end{gathered}$ | $\begin{gathered} \text { FISCAL YEAR } \\ 2012 \end{gathered}$ | $\begin{gathered} \text { FISCAL YEAR } \\ 2011 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Gross Return - Total Fund | (0.14\%) | (0.27\%) | 17.05\% | 9.14\% | 7.69\% | 15.61\% |
| Gross Return - Public Equity | (5.84\%) | (6.01\%) | 19.54\% | 14.82\% | 4.31\% | 14.51\% |
| Gross Return - Private Equity | 11.30\% | 11.29\% | 24.48\% | 18.61\% | 4.07\% | 24.70\% |
| Gross Return - Long Treasuries (1) | 4.90\% | 4.88\% | 15.85\% | (12.31\%) | 20.04\% | 5.54\% |
| Gross Return - Stable Value Hedge Funds (2) | 4.40\% | 4.40\% | 7.08\% | 2.65\% | 3.19\% | 3.99\% |
| Gross Return - Other Absolute Return* | 2.33\% | 2.33\% | 39.05\% | 1.24\% | 19.52\% | 6.54\% |
| Gross Return - Cash and Short-term | 3.39\% | 2.42\% | 3.05\% | 2.01\% | 2.91\% | 1.88\% |
| Gross Return - TIPS | (2.69\%) | (2.70\%) | 5.96\% | (6.80\%) | 8.34\% | 11.18\% |
| Gross Return - Real Assets | 13.91\% | 13.81\% | 13.69\% | 11.65\% | 11.22\% | 17.64\% |
| Gross Return - Commodities | (61.08\%) | (61.18\%) | 1.49\% | (26.16\%) | (11.03\%) | 31.64\% |
| Gross Return - Energy and Natural Resources | (10.57\%) | (10.58\%) | N/A | N/A | N/A | N/A |
| Gross Return - REITS | N/A | N/A | 23.14\% | (0.56\%) | 20.32\% | 18.81\% |

ATTACHMENT 1. TEACHER RETIREMENT SYSTEM TRUST FUND INPUT WORKSHEET (CONTINUED)

|  | MARKET |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | MARKET | VALUE OF | MARKET | MARKET | MARKET |
|  | VALUE OF | FUND | VALUE OF | VALUE OF | VALUE OF |
|  | FUND YEAR | YEAR | FUND YEAR | FUND YEAR | FUND YEAR |
|  | ENDING AUG. | ENDING AUG. | ENDING AUG. | ENDING AUG. | ENDING AUG. |
|  | 31,2015 | 31,2014 | 31,2013 | 31,2012 | 31,2011 |
| Portfolio Diversification | IN MILLIONS | IN MILLIONS | IN MILLIONS | IN MILLIONS | IN MILLIONS |
| \$126,276.1 |  |  |  |  |  |
| Total Fund | \$127,943 | \$132,192 | \$117,050 | \$111,066 | \$107,070 |
| Public Equity | \$64,189 | \$71,789 | \$58,230 | \$56,724 | \$54,312 |
| Private Equity | \$16,032 | \$15,570 | \$14,364 | \$13,101 | \$11,099 |
| Long Treasuries | \$11,141 | \$11,650 | \$16,312 | \$13,477 | \$11,907 |
| Stable Value Hedge Funds | \$5,395 | \$5,055 | \$4,207 | \$3,936 | \$4,324 |
| Other Absolute Return | \$2,961 | \$2,068 | \$465 | \$999 | \$3,214 |
| Cash and Short-term | \$1,722 | \$1,698 | \$1,129 | \$957 | \$1,376 |
| TIPS | \$5,839 | \$6,318 | \$5,925 | \$5,499 | \$5,635 |
| Real Assets | \$16,495 | \$15,234 | \$15,836 | \$13,031 | \$10,344 |
| Commodities | \$244 | \$169 | \$498 | \$1,155 | \$3,323 |
| Energy and Natural Resources | \$2,259 | N/A | N/A | N/A | N/A |
| REITS | N/A | \$101 | \$84 | \$2,188 | \$1,537 |
| Fund Contributions | TOTAL FISCAL YEAR 2015 IN MILLIONS | Notes on inputs |  |  |  |
|  |  |  |  |  |  |
| Members | \$2,576.024 | Member Contributions |  |  |  |
| State | \$1,593.634 | State General Fund + Contributions from Federal/Private Funding Sources + Contributions from the State for 415 Excess Benefit Arrangement +415 Excess Benefit Arrangement from ERS |  |  |  |
| Reporting Employers | \$1,377.973 | Included all Reporting Entity related in-flows including Employment after retirement surcharges |  |  |  |
| Member Reinstatements | \$50.089 | Refundable + non-refundable |  |  |  |
| Legislative Appropriations | - | None |  |  |  |
| Other | \$22.787 | Contributions from ERS for Service Contributions + Misc revenues |  |  |  |
| Investment Income | (\$412.759) | Investment Income |  |  |  |
| Total Contributions | \$5,207.749 |  |  |  |  |

Fund Distributions

| Benefits | $\$ 8,937.041$ | Benefits + 415 Excess Benefit Arrangement + Benefits Paid to ERS for 415 <br> Excess Benefits |
| :--- | :---: | :--- |
| Refunds | $\$ 391.341$ | Refunds (Active + Death) |
| Other | $\$ 119.904$ | Benefits Paid to ERS for Service Contributions + Administrative Expenses |
| Total Distributions | $\$ 9,448.286$ |  |

ATTACHMENT 1. TEACHER RETIREMENT SYSTEM TRUST FUND INPUT WORKSHEET (CONTINUED)

| Internal Investment Expenses: | IN MILLIONS |
| :--- | :---: |
| Direct | $\$ 33.895$ |
| Indirect | $\$ 14.275$ |
| External Investment Expenses: | $\$ 213.746$ |
| Total Investment Expenses: | $\$ 261.916$ |
|  |  |
|  | YEAR ENDING |
|  | AUG. 31,2015 |
| Percentage of Assets Externally | $24.9 \%$ |
| Managed |  |

ATTACHMENT 2. TEXAS EDUCATION AGENCY-PERMANENT SCHOOL FUND INPUT WORKSHEET

|  | MARKET VALUE |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | OF FUND YEAR |  |  |  |  |
|  | ENDING AUG. |  |  |  |  |
|  | 31,2015 |  |  |  |  |
|  | IN MILLIONS |  |  |  |  |
| Total Fund | \$29,011.8 |  |  |  |  |
|  |  | FISCAL YEAR |  |  |  |
|  | FISCAL YEAR | 2015 | FISCAL YEAR |  |  |
|  | 2015 TIME | BENCHMARK | 2015 TIME |  |  |
|  | WEIGHTED | ADJUSTED | WEIGHTED |  |  |
|  | GROSS FUND | GROSS FUND | NET FUND |  |  |
|  | RETURN | RETURN | RETURN |  |  |
| Total Fund | (3.36\%) | (3.71\%) | (3.49\%) |  |  |
|  | FISCAL YEAR | FISCAL YEAR | FISCAL YEAR | FISCAL | FISCAL YEAR |
|  | 2015 | 2014 | 2013 | YEAR 2012 | 2011 |
| Gross Return - Total Fund | (3.36\%) | 15.94\% | 10.16\% | 9.44\% | 13.64\% |
| Gross Return - Equity | (4.40\%) | 22.19\% | 17.66\% | 11.29\% | 16.71\% |
| (For Fiscal Year 2013 only) |  |  |  |  |  |
| \% of Domestic Equity Internally Managed | 100.00\% | 100.00\% | 100.00\% | 100.00\% | 100.00\% |
| Rate of Return for Internally Managed | 0.67\% | 24.53\% | 20.13\% | 17.32\% | 19.29\% |
| \% of Domestic Equity Externally Managed | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| Rate of Return for Externally Managed | N/A | N/A | N/A | N/A | N/A |
| Gross Return - Fixed Income | 1.48\% | 5.93\% | (2.02\%) | 6.57\% | 4.58\% |
| Gross Return - Cash and Short-term | N/A | N/A | N/A | N/A | N/A |
| Gross Return - Absolute Return (1) | 2.60\% | 9.94\% | 10.23\% | 3.69\% | 4.48\% |
| Gross Return - Real Estate (1) | 12.97\% | 12.35\% | 11.85\% | 7.38\% | 15.53\% |
| Gross Return - Private Equity (1) | 13.02\% | 5.91\% | 26.89\% | 5.43\% | 20.32\% |
| Gross Return - Risk Parity (1) | (9.47\%) | 18.15\% | (3.28\%) | 13.11\% |  |
| Gross Return - Real Return (1) | (15.31\%) | 2.49\% | (7.99\%) | 8.49\% |  |
|  |  | MARKET | MARKET | MARKET VALUE OF | MARKET VALUE OF |
|  | MARKET VALUE | VALUE OF | VALUE OF | FUND YEAR | FUND YEAR |
|  | OF FUND YEAR | FUND YEAR | FUND YEAR | ENDING | ENDING |
|  | ENDING AUG. $\text { 31, } 2015$ | ENDING AUG. $\text { 31, } 2014$ | ENDING AUG. $\text { 31, } 2013$ | AUG. 31, $2012$ | AUG. 31, $2011$ |
| PORTFOLIO DIVERSIFICATION | IN MILLIONS | IN MILLIONS | IN MILLIONS | IN MILLIONS | IN MILLIONS |
| All Equity | \$13,049 | \$14,784 | \$14,491 | \$13,893 | \$13,189 |
| All Fixed Income | \$4,201 | \$4,620 | \$5,010 | \$5,470 | \$6,071 |
| All Absolute Return | \$3,128 | \$3,067 | \$2,806 | \$2,562 |  |
| All Real Estate | \$1,828 | \$1,281 | \$856 | \$624 |  |
| All Private Equity | \$1,480 | \$1,073 | \$724 | \$435 |  |
| All Risk Parity | \$1,865 | \$2,067 | \$1,754 | \$1,819 |  |
| All Real Return | \$1,609 | \$1,732 | \$1,556 | \$755 |  |
| All Emerging Market Debt | \$1,749 | \$2,122 |  |  |  |
| All Other Investments | N/A | N/A | N/A | N/A | \$4,868 |

ATTACHMENT 2. TEXAS EDUCATION AGENCY-PERMANENT SCHOOL FUND INPUT WORKSHEET (CONTINUED)

| All Cash and Short-term Securities | \$103 | \$41 | \$80 | \$14 | \$1 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Totals: | \$29,012 | \$30,787 | \$27,277 | \$25,572 | \$24,131 |
|  | TOTAL FISCAL YEAR 2015 <br> IN MILLIONS |  |  |  |  |
| Fund Contributions | \$150.0 |  |  |  |  |
| Fund Distributions | \$838.7 |  |  |  |  |
| Internal Investment Expenses: | \$20.6 |  |  |  |  |
| Direct |  |  |  |  |  |
| Indirect |  |  |  |  |  |
| External Investment Expenses: | \$0.5 |  |  |  |  |
| Total Investment Expenses: |  |  |  |  |  |

YEAR ENDING
AUG. 31, 2015

## Percentage of Assets Externally Managed

Notes:
(1) Rate of Return is Modified Dietz.
(2) Factors currently included in calculation of investment expenses:

1. External Investment Expenses-flat fees of $\$ 45,000$ per month for International Equity.
2. Internal Investment Expense includes salaries, overhead, accounting, compliance and technology expenses.
3. Transition Cash included with All Cash and Short Term Securities. This measure was not included prior to 2012.

ATTACHMENT 3. TEXAS GENERAL LAND OFFICE-PERMANENT SCHOOL FUND

|  | MARKET | MARKET |
| :--- | :---: | :---: |
|  | VALUE OF | VALUE OF |
|  | FUND YEAR | FUND YEAR |
|  | ENDING JUNE | ENDING JUNE |
|  | 30, 2015 | 30,2014 |
|  | IN MILLIONS | IN MILLIONS |
|  | $\$ 4,522.3$ | $\$ 3,872.7$ |


|  | YEAR ENDING | YEAR ENDING | YEAR |  |
| :---: | :---: | :---: | :---: | :---: |
|  | JUNE 30, 2015 | JUNE 30, 2014 | ENDING JUNE |  |
|  | TIME | TIME | 30, 2014 |  |
|  | WEIGHTED | WEIGHTED | BENCHMARK | 5 YEAR |
|  | GROSS FUND | GROSS FUND | GROSS | GEOMETRIC |
|  | RETURN | RETURN | RETURN | MEAN |
| Total Fund w/o Cash and Short-term | 11.32\% | 16.60\% | 10.62\% | 15.56\% |
| Total Fund w/Cash and Short-term | 5.79\% | 9.73\% |  |  |


|  | FISCAL YEAR 2015 | FISCAL YEAR 2014 | $\begin{aligned} & \text { FISCAL YEAR } \\ & 2013 \end{aligned}$ | $\begin{aligned} & \text { FISCAL YEAR } \\ & 2012 \end{aligned}$ | FISCAL YEAR 2011 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Gross Return - Total Fund w/o Cash and Shortterm | 11.32\% | 16.60\% | 12.67\% | 21.16\% | 16.32\% |
| Gross Return - Total Fund w/Cash and Shortterm | 5.79\% | 9.73\% | 7.60\% | 12.20\% | 9.52\% |
| Gross Return - Real Assets | 11.32\% | 16.60\% | 12.67\% | 21.16\% | 16.32\% |
| \% of Real Assets Internally Managed | 11.86\% | 13.73\% | 16.88\% | 17.00\% | 21.00\% |
| Rate of Return for Internally Managed | 10.92\% | 7.79\% | 4.79\% | 8.78\% | 3.07\% |
| \% of Real Assets Externally Managed | 88.14\% | 86.27\% | 83.12\% | 83.00\% | 79.00\% |
| Rate of Return for Externally Managed | 11.36\% | 18.24\% | 14.28\% | 24.28\% | 23.22\% |
| Gross Return - Fixed Income | N/A | N/A | N/A | N/A | N/A |
| Gross Return - Cash and Short-term | 0.39\% | 0.38\% | 0.41\% | 0.58\% | 0.90\% |
| Gross Return - All Other | N/A | N/A | N/A | N/A | N/A |
| Gross Return - Absolute Return | N/A | N/A | N/A | N/A | N/A |
| Gross Return - Equity Hedge | N/A | N/A | N/A | N/A | N/A |
| Gross Return - Non-marketable | N/A | N/A | N/A | N/A | N/A |
|  | MARKET VALUE OF FUND YEAR ENDING JUNE 30, 2015 | MARKET VALUE OF FUND YEAR ENDING JUNE 30, 2014 | MARKET VALUE OF FUND YEAR ENDING JUNE 30, 2013 | MARKET VALUE OF FUND YEAR ENDING JUNE 30, 2012 | MARKET VALUE OF FUND YEAR ENDING JUNE 30, 2011 |
| PORTFOLIO DIVERSIFICATION | IN MILLIONS | IN MILLIONS | IN MILLIONS | IN MILLIONS | IN MILLIONS |
| All Real Assets | \$2,137.7 | \$2,148.0 | \$2,048.2 | \$1,847.3 | \$1,482.8 |
| All Fixed Income |  |  |  |  |  |
| All Cash and Short-term Securities | \$2,384.6 | \$1,724.7 | \$1,151.2 | \$1,335.7 | \$1,082.9 |
| All Other Investments |  |  |  |  |  |
| Absolute Return |  |  |  |  |  |
| Equity Hedge |  |  |  |  |  |
| Non-marketable |  |  |  |  |  |
| Totals: | \$4,522.3 | \$3,872.7 | \$3,199.4 | \$3,183.0 | \$2,565.7 |


|  | TOTAL FISCAL YEAR 2015 IN MILLIONS | total fiscal YEAR 2014 IN MILLIONS | TOTAL FISCAL YEAR 2013 IN MILLIONS | TOTAL FISCAL YeAR 2012 IN MILLIONS | TOTAL FISCAL YEAR 2011 IN MILLIONS |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fund Contributions |  |  |  |  |  |
| Contributions to GLO controlled portion (1) | \$1,279.7 | \$1,223.7 | \$728.3 | \$724.3 | \$893.6 |
| Contributions to TEA controlled portion | \$150.0 | \$130.0 | \$250.0 | \$250.0 | \$100.0 |
| Contributions to ASF | \$0 | \$0 | \$300.0 | \$0 | \$0 |
| Fund Distributions |  |  |  |  |  |
| Distributions to TEA controlled portion | \$150.0 | \$130.0 | \$250.0 | \$250.0 | \$100.0 |
| Depository interest transferred to TEA | \$0 | \$0 | \$0 | \$0 | \$0 |
| Distributions to ASF | \$0 | \$0 | \$300.0 | \$0 | \$0 |
| Internal Investment Expenses: |  |  |  |  |  |
| Direct | \$3.7 | \$3.0 | \$2.7 | \$2.2 | \$3.1 |
| Indirect | \$0.7 | \$0.6 | \$0.5 | \$0.4 | \$0.6 |
| External Investment Expenses: | \$25.2 | \$21.1 | \$19.4 | \$20.5 | \$12.2 |
| Total Investment Expenses: | \$29.7 | \$24.7 | \$22.7 | \$23.2 | \$15.9 |
| Percentage of Real Assets Externally Managed | 88\% | 86\% | 83\% | 83\% | 79\% |
| NOTE: (1) In addition to oil and gas royalties, also includes return of capital on real assets investments, mineral lease bonus payments, and various other revenue sources. |  |  |  |  |  |


|  | MARKET VALUE |
| :---: | :---: | :---: |
| OF FUND YEAR |  |
| ENDING AUG. 31, |  |
|  | 2015 |
|  | IN MILIONS |
| Total Fund | $\$ 25,177.94$ |



| PORTFOLIO DIVERSIFICATION | MARKET VALUE <br> OF FUND YEAR <br> ENDING AUG. 31, <br> 2015 <br> IN MILLIONS | MARKET VALUE OF FUND YEAR ENDING AUG. 31 2014 <br> IN MILLIONS | MARKET VALUE OF FUND YEAR ENDING AUG. 31, 2013 <br> IN MILLIONS | MARKET VALUE OF FUND YEAR ENDING AUG. 31, 2012 <br> IN MILLIONS | MARKET VALUE OF FUND YEAR ENDING AUG. 31 2011 <br> IN MILLIONS |
| :---: | :---: | :---: | :---: | :---: | :---: |
| All Equity | \$12,257.32 | \$14,017.61 | \$12,784.48 | \$12,290.18 | \$12,265.00 |
| All Fixed Income | \$5,918.24 | \$6,064.86 | \$7,028.50 | \$7,665.84 | \$8,038.00 |
| All Cash and Short-term Securities | \$337.53 | \$169.38 | \$195.07 | \$236.20 | \$332.00 |
| All Other Investments | \$6,664.85 | \$5,879.71 | \$3,850.72 | \$2,579.06 | \$1,484.00 |
| Totals: | \$25,177.94 | \$26,131.56 | \$23,858.77 | \$22,771.28 | \$22,119.00 |

$\left.\begin{array}{l}\hline \text { ATTACHMENT 4. EMPLOYEES RETIREMENT SYSTEM TRUST FUND INPUT WORKSHEET (CONTINUED) } \\ \hline \\ \\ \hline\end{array} \begin{array}{c}\text { TOTAL FISCAL } \\ \text { YEAR 2015 } \\ \text { IN MILLIONS }\end{array}\right]$

ATTACHMENT 5. UTIMCO PERMANENT UNIVERSITY FUND INPUT WORKSHEET

|  | MARKET |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | VALUE OF |  |  |  |  |
|  | FUND YEAR |  |  |  |  |
|  | ENDING AUG. |  |  |  |  |
|  | 31,2015 |  |  |  |  |
|  | IN MILLIONS |  |  |  |  |
| Total Fund | \$17,490.0 |  |  |  |  |
|  |  |  |  | FISCAL YEAR |  |
|  |  | FISCAL YEAR | FISCAL YEAR | 2015 |  |
|  | FISCAL YEAR | 2015 | 2015 TIME | BENCHMARK |  |
|  | 2015 TIME | BENCHMARK | WEIGHTED | ADJUSTED |  |
|  | WEIGHTED | ADJUSTED | GROSS FUND | GROSS FUND |  |
|  | GROSS FUND | GROSS FUND | RETURN (EX | RETURN (EX |  |
|  | RETURN | RETURN | CASH) | CASH) |  |
| Total Fund | 0.68\% | (1.37\%) | N/A | (1.37\%) |  |
|  | FISCAL YEAR | FISCAL YEAR | FISCAL YEAR | FISCAL YEAR | FISCAL YEAR |
|  | 2015 | 2014 | 2013 | 2012 | 2011 |
| Gross Return - Total Fund | 0.68\% | 15.43\% | 9.13\% | 3.44\% | 15.06\% |
| Gross Return - Equity |  |  |  |  |  |
| Domestic | 4.47\% | 24.60\% | 30.00\% | 1.09\% | 19.14\% |
| Foreign | (6.39\%) | 25.14\% | 11.51\% | 1.99\% | 11.13\% |
| Gross Return - Fixed Income | (4.92\%) | 5.84\% | (0.72\%) | 2.24\% | 8.04\% |
| Gross Return - Cash and Short-term | 0.97\% | 0.57\% | 0.67\% | 0.84\% | 1.32\% |
| Gross Return - All Other |  |  |  |  |  |
| Absolute Return |  |  |  |  |  |
| Equity Hedge | 3.05\% | 10.62\% | 11.46\% | 6.65\% | 7.48\% |
| Non-Marketable | 13.44\% | 20.04\% | 13.27\% | 7.05\% | 23.26\% |
| Commodities | (30.04\%) | 3.07\% | (10.71\%) | (8.23\%) | 35.74\% |
| Real Estate | (8.12\%) | 19.68\% | 5.26\% | 5.09\% | 9.81\% |
|  | MARKET |  | MARKET | MARKET | MARKET VALUE OF |
|  | VALUE OF | MARKET VALUE | VALUE OF | VALUE OF | FUND YEAR |
|  | FUND YEAR | OF FUND YEAR | FUND YEAR | FUND YEAR | ENDING |
|  | ENDING AUG. $\text { 31, } 2015$ | ENDING AUG. $31,2014$ | ENDING AUG. $31,2013$ | ENDING AUG. $\text { 31, } 2012$ | AUG. 31, $2011$ |
| PORTFOLIO DIVERSIFICATION | IN MILLIONS | IN MILLIONS | IN MILLIONS | IN MILLIONS | IN MILLIONS |
| All Equity | \$4,021.4 | \$4,405.9 | \$3,387.0 | \$2,570.3 | \$2,521.0 |
| Domestic (a) and (f) | \$979.2 | \$987.6 | \$741.0 | \$571.1 | \$538.4 |
| Foreign (b) and (c) | \$3,042.2 | \$3,418.3 | \$2,646.0 | \$1,999.2 | \$1,982.6 |
| All Fixed Income (h) and (i) | \$1,016.7 | \$1,019.0 | \$879.3 | \$1,165.5 | \$1,128.1 |
| All Cash and Short-term Securities (j) | \$85.8 | \$139.8 | \$530.5 | \$463.7 | \$338.8 |
| All Other Investments | \$12,366.1 | \$11,800.2 | \$10,055.7 | \$9,270.8 | \$8,700.1 |
| Absolute Return (d) |  |  |  |  |  |
| Equity Hedge (d) | \$5,238.4 | \$5,141.1 | \$4,375.8 | \$3,974.8 | \$3,737.7 |
| Non-Marketable (e) | \$5,614.6 | \$4,857.4 | \$3,919.9 | \$3,547.9 | \$3,142.8 |
| Commodities (g) | \$1,110.2 | \$1,363.2 | \$1,400.9 | \$1,401.8 | \$1,515.2 |

ATTACHMENT 5. UTIMCO PERMANENT UNIVERSITY FUND INPUT WORKSHEET (CONTINUED)


| MARKET |  |
| :---: | :---: |
| VALUE OF |  |
| FUND YEAR |  |
| ENDING AUG. |  |
|  | 31,2015 |
| Total Fund | IN MILLIONS |
|  | $\$ 1,075.7$ |

FISCAL YEAR
2015 TIME
WEIGHTED
GROSS FUND
RETURN
$1.08 \%$
FISCAL YEAR
2015
$1.08 \%$

See Note 1
\% of Domestic Equity Internally Managed
\% of Domestic Equity Externally Managed
Gross Return - Fixed Income
Gross Return - Cash and Short-term
Gross Return - All Other
GEF
Gross Return - Total Fund
Gross Return - Equity
Domestic
Foreign
Gross Return - Fixed Income
Gross Return - Cash and Short-term
Gross Return - All Other
Absolute Return
Equity Hedge
Non-Marketable
Commodities
Real Estate

ATTACHMENT 6. UTIMCO PERMANENT HEALTH FUND INPUT WORKSHEET (CONTINUED)

| PORTFOLIO DIVERSIFICATION | MARKET VALUE OF FUND YEAR ENDING AUG. 31, 2015 IN MILLIONS | MARKET VALUE OF FUND YEAR ENDING AUG. 31, 2014 IN MILLIONS | MARKET VALUE OF FUND YEAR ENDING AUG. 31, 2013 IN MILLIONS | MARKET VALUE OF FUND YEAR ENDING AUG. 31, 2012 IN MILLIONS | MARKET VALUE OF FUND YEAR ENDING AUG. 31, 2011 <br> IN MILLIONS |
| :---: | :---: | :---: | :---: | :---: | :---: |
| All Equity | \$1,075.4 | \$1,113.3 | \$1,014.9 | \$976.2 | \$992.7 |
| All Fixed Income |  |  |  |  |  |
| All Other Investments |  |  |  |  |  |
|  | TOTAL FISCAL YEAR 2015 IN MILLIONS |  |  |  |  |
| Fund Contributions | \$- |  |  |  |  |
| Fund Distributions | (\$49.0) |  |  |  |  |
| Internal Investment Expenses: |  |  |  |  |  |
| Direct | \$0.5 |  |  |  |  |
| Indirect | \$0.6 |  |  |  |  |
| External Investment Expenses: | \$- |  |  |  |  |
| Total Investment Expense | \$1.1 |  |  |  |  |
| Allocation from GEF | \$3.3 |  |  |  |  |
| Total Expense | \$4.4 | Investment expense is made up of investment management fees, custodian, and audit fees. |  |  |  |

## YEAR ENDING

AUG. 31, 2015

## Percentage of Assets Externally Managed

Note (1) - As of March 1, 2001, the PHF and LTF purchased units in the newly created General Endowment Fund (GEF) in exchange for their contribution of investment assets. The GEF, established by the Board of Regents effective March 1, 2001, is a pooled fund for the collective investment of long-term funds under the control and management of the board. The GEF is organized as a mutual fund in which the PHF and LTF are the only unitholders. As of August 31, 2015, the PHF had a 13.06 percent ownership of the GEF. The returns by asset class for the GEF for fiscal year 2015 are shown above. As of August 31, 2015, the fund owned 4,197,109 GEF units representing an ownership percentage of 13.06 percent, compared to $4,391,601$ GEF units representing an ownership percentage of 13.37 percent as of August 31, 2014.

ATTACHMENT 7. COMPTROLLER-TOBACCO SETTLEMENT PERMANENT TRUST FUND INPUT WORKSHEET

|  | MARKET VALUE OF FUND YEAR ENDING AUG. 31, 2015 IN MILLIONS |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Total Fund | \$2,291.0 |  |  |  |  |
|  | FISCAL YEAR 2015 TIME WEIGHTED GROSS FUND RETURN | FISCAL YEAR 2015 <br> BENCHMARK ADJUSTED GROSS FUND RETURN | FISCAL YEAR 2015 TIME WEIGHTED NET FUND RETURN |  |  |
| Total Fund |  |  |  |  |  |
|  | $\begin{aligned} & \text { FISCAL YEAR } \\ & 2015 \end{aligned}$ | FISCAL YEAR 2014 | FISCAL YEAR 2013 | FISCAL YEAR 2012 | FISCAL YEAR 2011 |
| Gross Return - Total Fund | (0.29\%) | 11.96\% | 7.89\% | 2.82\% | 10.47\% |
| Gross Return - Equity | (2.32\%) | 19.28\% | 20.68\% | 7.60\% | 13.70\% |
| \% of Domestic Equity Internally Managed | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| Rate of Return for Internally Managed | 0.00\% | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| \% of Domestic Equity Externally Managed | 100.00\% | 100.00\% | 100.00\% | 100.00\% | 100.00\% |
| Rate of Return for Externally Managed | (2.32\%) | 19.28\% | 20.68\% | 7.60\% | 13.70\% |
| Gross Return - Fixed Income | (2.18\%) | 5.58\% | (0.51\%) | 5.41\% | 3.17\% |
| Gross Return - Cash and Short-term | 0.09\% | 0.07\% | 0.01\% | 0.01\% | 0.02\% |
| Gross Return - All Other |  |  |  |  |  |
| Gross Return - Alternative Fixed Income | (2.22\%) | 8.87\% | 3.08\% | 0.24\% | 5.60\% |
| Gross Return - Equity Hedge | 1.84\% | 9.70\% | 10.99\% | (0.78\%) | 8.09\% |
| Gross Return Non-marketable - Private Debt | 1.04\% | 13.13\% | 13.15\% | 7.23\% |  |
| Gross Return Non-marketable - Private Equity | 9.19\% | 20.66\% | 12.38\% | 8.77\% | 18.84\% |
| Gross Return Non-marketable - Real EstateEnhanced | 18.53\% | 19.92\% | 11.55\% | 6.82\% | 19.99\% |
| Gross Return Non-marketable - Real EstateStable | 7.01\% | 12.58\% | 9.64\% | 3.37\% | 7.35\% |
| Gross Return - Natural Resources | (30.54\%) | 0.66\% | (9.27\%) | (7.16\%) | 42.29\% |
| Gross Returns - Inflation Linked Bonds | (17.44\%) | 12.02\% | (3.83\%) | 4.33\% |  |
| Gross Returns - All Asset Strategies | (12.67\%) | 9.95\% | (2.29\%) |  |  |

ATTACHMENT 7. COMPTROLLER-TOBACCO SETTLEMENT PERMANENT TRUST FUND INPUT WORKSHEET (CONTINUED)

| PORTFOLIO DIVERSIFICATION | MARKET VALUE OF FUND YEAR ENDING AUG. 31, 2015 IN MILLIONS | MARKET VALUE OF FUND YEAR ENDING AUG. 31, 2014 IN MILLIONS | MARKET VALUE OF FUND YEAR ENDING AUG. 31, 2013 IN MILLIONS | MARKET VALUE OF FUND YEAR ENDING AUG. 31, 2012 IN MILLIONS | MARKET VALUE OF FUND YEAR ENDING AUG. 31, 2011 IN MILLIONS |
| :---: | :---: | :---: | :---: | :---: | :---: |
| All Equity | \$332.9 | \$347.7 | \$362.7 | \$295.2 | \$561.6 |
| All Fixed Income | \$162.3 | \$173.9 | \$176.6 | \$201.1 | \$310.5 |
| All Cash and Short-term Securities | \$69.4 | \$85.4 | \$51.5 | \$18.7 | \$19.6 |
| All Other Investments | \$1,726.4 | \$1,750.6 | \$1,567.0 | \$1,537.5 | \$1,159.8 |
| Alternative Fixed Income | \$386.9 | \$383.5 | \$397.5 | \$366.5 | \$429.9 |
| Equity Hedge | \$483.9 | \$480.4 | \$432.1 | \$427.2 | \$214.5 |
| Non-marketable - Private Debt | \$202.5 | \$171.9 | \$116.4 | \$106.4 |  |
| Non-marketable - Private Equity | \$256.2 | \$244.5 | \$221.0 | \$197.7 | \$228.5 |
| Non-marketable - Real Estate-Value | \$126.4 | \$135.7 | \$129.7 | \$111.3 | \$96.3 |
| Non-marketable - Real Estate-Stable | \$117.1 | \$104.9 | \$88.9 | \$65.5 | \$62.4 |
| Natural Resources | \$81.8 | \$125.5 | \$128.4 | \$155.0 | \$128.2 |
| Inflation Linked Bonds | \$14.8 | \$18.0 | \$17.9 | \$18.4 |  |
| All Asset Strategies | \$56.8 | \$86.2 | \$35.1 | \$89.5 |  |
| Totals: | \$2,291.0 | \$2,357.6 | \$2,157.8 | \$2,052.5 | \$2,051.5 |
|  | TOTAL FISCAL <br> YEAR 2015 IN MILLIONS |  |  |  |  |
| Fund Contributions | - |  |  |  |  |
| Fund Distributions | \$55.0 |  |  |  |  |
| Internal Investment Expenses: |  |  |  |  |  |
| Direct | \$5.8 |  |  |  |  |
| Indirect |  |  |  |  |  |
| External Investment Expenses: | \$2.1 |  |  |  |  |
| Total Investment Expenses: | \$8.0 |  |  |  |  |

YEAR ENDING AUG. 31, 2015 100.0\%

ATTACHMENT 8. TEXAS GUARANTEED TUITION PLAN FUND INPUT WORKSHEET



ATTACHMENT 9. COMPTROLLER-PERMANENT PUBLIC HEALTH FUND INPUT WORKSHEET
MARKET
VALUE OF
FUND YEAR
ENDING AUG.
31, 2015
IN MILLIONS
\$312.8

|  | FISCAL YEAR |  |
| :---: | :---: | :---: |
| FISCAL YEAR | 2015 | FISCAL YEAR |
| 2015 TIME | BENCHMARK | 2015 TIME |
| WEIGHTED | ADJUSTED | WEIGHTED |
| GROSS FUND | GROSS FUND | NET FUND |
| RETURN | RETURN | RETURN |

Total Fund

| FISCAL YEAR | FISCAL YEAR | FISCAL YEAR | FISCAL YEAR | FISCAL YEAR |
| :---: | :---: | :---: | :---: | :---: |
| $\mathbf{2 0 1 5}$ | $\mathbf{2 0 1 4}$ | $\mathbf{2 0 1 3}$ | $\mathbf{2 0 1 2}$ | $\mathbf{2 0 1 1}$ |
| $(2.52 \%)$ | $11.28 \%$ | $8.17 \%$ | $2.80 \%$ | $10.60 \%$ |
| $(2.32 \%)$ | $19.28 \%$ | $20.68 \%$ | $7.60 \%$ | $13.70 \%$ |
| $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| $100.00 \%$ | $100.00 \%$ | $100.00 \%$ | $100.00 \%$ | $100.00 \%$ |
| $(2.32 \%)$ | $19.28 \%$ | $20.68 \%$ | $7.60 \%$ | $13.70 \%$ |
| $(2.18 \%)$ | $5.58 \%$ | $(0.51 \%)$ | $5.41 \%$ | $3.17 \%$ |
| $0.09 \%$ | $0.07 \%$ | $0.01 \%$ | $0.01 \%$ | $0.02 \%$ |
|  |  |  |  |  |
| $(2.22 \%)$ | $8.87 \%$ | $3.08 \%$ | $0.24 \%$ | $5.60 \%$ |
| $1.84 \%$ | $9.70 \%$ | $10.99 \%$ | $(0.78 \%)$ | $8.09 \%$ |
| $3.93 \%$ | $14.10 \%$ | $15.07 \%$ | $7.23 \%$ |  |
| $9.00 \%$ | $19.48 \%$ | $13.87 \%$ | $8.66 \%$ | $18.36 \%$ |
| $18.58 \%$ | $20.66 \%$ | $11.78 \%$ | $6.82 \%$ | $19.99 \%$ |
| $5.92 \%$ | $12.01 \%$ | $11.06 \%$ | $3.37 \%$ | $7.35 \%$ |
| $(30.50 \%)$ | $0.68 \%$ | $(9.27 \%)$ | $(7.16 \%)$ | $42.29 \%$ |
| $(17.44 \%)$ | $12.02 \%$ | $(3.83 \%)$ | $4.33 \%$ |  |
| $(12.49 \%)$ | $10.11 \%$ | $(2.96 \%)$ |  |  |

ATTACHMENT 9. COMPTROLLER-PERMANENT PUBLIC HEALTH FUND INPUT WORKSHEET (CONTINUED)

| PORTFOLIO DIVERSIFICATION | MARKET VALUE OF FUND YEAR ENDING AUG. 31, 2015 IN MILLIONS | MARKET VALUE OF FUND YEAR ENDING AUG. 31, 2014 IN MILLIONS | MARKET VALUE OF FUND YEAR ENDING AUG. 31, 2013 IN MILLIONS | MARKET VALUE OF FUND YEAR ENDING AUG. 31, 2012 IN MILLIONS | MARKET VALUE OF FUND YEAR ENDING AUG. 31, 2011 IN MILLIONS |
| :---: | :---: | :---: | :---: | :---: | :---: |
| All Equity | \$61.9 | \$58.4 | \$61.4 | \$58.3 | \$114.9 |
| All Fixed Income | \$30.2 | \$29.2 | \$29.9 | \$39.8 | \$63.0 |
| All Cash and Short-term Securities | \$8.2 | \$12.1 | \$8.4 | \$3.3 | \$3.9 |
| All Other Investments | \$212.5 | \$243.5 | \$271.7 | \$307.0 | \$244.7 |
| Alternative Fixed Income | \$72.0 | \$64.4 | \$67.3 | \$72.4 | \$88.0 |
| Equity Hedge | \$90.0 | \$80.6 | \$73.1 | \$84.4 | \$43.9 |
| Non-marketable - Private Debt | \$6.6 | \$11.6 | \$17.1 | \$18.9 |  |
| Non-marketable - Private Equity | \$8.7 | \$26.0 | \$44.0 | \$42.6 | \$52.4 |
| Non-marketable - Real Estate-Enhanced | \$4.3 | \$13.5 | \$23.6 | \$22.7 | \$20.6 |
| Non-marketable - Real Estate-Stable | \$3.9 | \$10.2 | \$16.9 | \$14.2 | \$13.6 |
| Natural Resources | \$14.9 | \$21.0 | \$21.7 | \$30.6 | \$26.2 |
| Inflation Linked Bonds | \$2.8 | \$3.0 | \$3.0 | \$3.6 |  |
| All Asset Strategies | \$9.4 | \$13.2 | \$5.0 | \$17.6 |  |
| Totals: | \$312.8 | \$343.2 | \$371.4 | \$408.4 | \$426.5 |
| TOTAL FISCAL YEAR 2015 IN MILLIONS |  |  |  |  |  |
| Fund Contributions |  |  |  |  |  |
| Fund Distributions Total | \$21.6 |  |  |  |  |
| Fund Distributions for Public Health | \$12.5 |  |  |  |  |
| Fund Distributions CPRIT Debt Service | \$9.1 |  |  |  |  |
| Internal Investment Expenses: |  |  |  |  |  |
| Direct | \$0.8 |  |  |  |  |
| Indirect |  |  |  |  |  |
| External Investment Expenses: | \$0.3 |  |  |  |  |
| Total Investment Expenses: | \$1.1 |  |  |  |  |
|  | YEAR ENDING AUG. 31, 2015 |  |  |  |  |
| Percentage of Assets Externally Managed | 100.0\% |  |  |  |  |

ATTACHMENT 10. COMPTROLLER-NATIONAL RESEARCH UNIVERSITY FUND INPUT WORKSHEET


## MARKET <br> VALUE OF <br> FUND YEAR <br> 31, 2015 <br> IN MILLIONS

Total Fund

ATTACHMENT 10. COMPTROLLER - NATIONAL RESEARCH UNIVERSITY FUND INPUT WORKSHEET (CONTINUED)

|  |  |  | MARKET |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | MARKET | MARKET | MARKET | VALUE OF | MARKET |
|  | VALUE OF | VALUE OF | VALUE OF | FUND YEAR | VALUE OF |
|  | FUND YEAR | FUND YEAR | FUND YEAR | ENDING | FUND YEAR |
|  | ENDING AUG. | ENDING AUG. | ENDING AUG. | AUG. 31, | ENDING AUG. |
|  | 31,2015 | 31,2014 | 31,2013 | 2012 | 31,2011 |
| PORTFOLIO DIVERSIFICATION | IN MILLIONS | IN MILLIONS | IN MILLIONS | IN MILLIONS | IN MILLIONS |
| All Equity | \$98.4 | \$104.4 | \$110.2 | \$90.3 | \$171.1 |
| All Fixed Income | \$48.0 | \$52.2 | \$53.7 | \$61.5 | \$94.4 |
| All Cash and Short-term Securities | \$20.0 | \$24.7 | \$15.1 | \$5.2 | \$5.3 |
| All Other Investments | \$492.9 | \$502.0 | \$451.3 | \$445.9 | \$334.5 |
| Alternative Fixed Income | \$114.3 | \$115.1 | \$120.8 | \$112.0 | \$131.0 |
| Equity Hedge | \$143.0 | \$144.2 | \$131.3 | \$130.6 | \$65.4 |
| Non-marketable - Private Debt | \$57.4 | \$47.8 | \$31.2 | \$27.7 |  |
| Non-marketable - Private Equity | \$67.5 | \$63.2 | \$57.3 | \$51.6 | \$60.2 |
| Non-marketable - Real Estate-Enhanced | \$33.7 | \$35.3 | \$33.1 | \$27.8 | \$23.6 |
| Non-marketable - Real Estate-Stable | \$31.7 | \$27.6 | \$22.7 | \$16.1 | \$15.2 |
| Natural Resources | \$24.2 | \$37.7 | \$39.0 | \$47.4 | \$39.1 |
| Inflation Linked Bonds | \$4.4 | \$5.4 | \$5.4 | \$5.6 |  |
| All Asset Strategies | \$16.8 | \$25.7 | \$10.5 | \$27.1 |  |
| Totals: | \$659.2 | \$683.3 | \$630.3 | \$602.9 | \$605.3 |
|  | TOTAL FISCAL YEAR 2015 IN MILLIONS |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Fund Contributions | \$0.0 |  |  |  |  |
| Fund Distributions | \$18.3 |  |  |  |  |
| Internal Investment Expenses: |  |  |  |  |  |
| Direct | \$1.7 |  |  |  |  |
| Indirect |  |  |  |  |  |
| External Investment Expenses: | \$0.6 |  |  |  |  |
| Total Investment Expenses: | \$2.3 |  |  |  |  |
|  | YEAR ENDING AUG. 31, 2015 |  |  |  |  |
|  |  |  |  |  |  |
| Percentage of Assets Externally Managed | 100.0\% |  |  |  |  |


[^0]:    Sources: Investing agencies; The University of Texas Investment Management Company.

[^1]:    Sources: Investing agencies; The University of Texas Investment Management Company.

[^2]:    Sources: Investing agencies; The University of Texas Investment Management Company.

[^3]:    Sources: Investing agencies; The University of Texas Investment Management Company.

[^4]:    Sources: Investing agencies; The University of Texas Investment Management Company.

[^5]:    Sources: Investing agencies; The University of Texas Investment Management Company.

[^6]:    Sources: Investing agencies; The University of Texas Investment Management Company.

