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Key Points of Report

A Review of Controls Over Investment Practices at Five State Investing Entities

February 1997

Overall Conclusion

Controls over investment practices at the five entities reviewed appear adequate to ensure accountability for the entities' investments, although some enhancements to existing controls were identified. Only minor instances of noncompliance were identified at the two entities subject to the Public Funds Investment Act (Chapter 2256, Government Code). Investments at the entities we reviewed, totaling over \$3.4 billion, are used to fund higher education and state-sponsored loan programs as well as to pay operational costs.

Key Facts and Findings

- The boards of Texas Tech University and the Texas A&M University System could benefit from direct access to outside investment professionals to assist in overseeing investment operations.
- Oversight at the Veterans Land Board could be enhanced through increased formal monitoring of investment operations.
- Controls are in place at Texas Tech University to manage the risk associated with a high concentration of collateralized mortgage obligations in the University's Cash Investment Pool.
- This review represents Phase II of the investment practices review that began in fiscal year 1995. A total of 11 entities have been reviewed to date, representing approximately 93 percent of the State's total investment balances.

Contact Carol Smith, CPA, Audit Manager (512) 479-4700



Office of the State Auditor

Lawrence F. Alwin, CPA

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Controls over investment practices at the five entities reviewed appear adequate to ensure accountability for the entities' investments, although some enhancements to existing controls were identified. Only minor instances of noncompliance were identified at the two entities subject to the Public Funds Investment Act (Chapter 2256, Government Code). Investments at the entities we reviewed, totaling over \$3.4 billion, are used to fund higher education and state-sponsored loan programs as well as to pay operational costs.

Existing oversight controls could be further strengthened at three of the entities we reviewed. The boards of Texas Tech University and the Texas A&M University System could benefit from direct access to outside investment professionals. Independent investment experts can be a valuable resource to fiduciaries to ensure they are informed about all aspects of the investment operations they oversee. At Texas Tech University, outside expertise could also assist the Board of Regents in overseeing the implementation of a more complex investment strategy designed to protect the purchasing power of its endowment funds. Oversight at the Veterans Land Board could be enhanced through increased formal monitoring of investment operations.

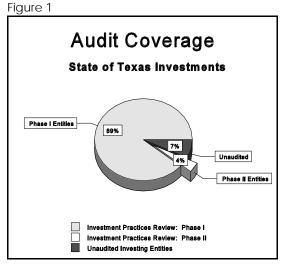
Frequently identified strengths at most of the agencies and universities reviewed include the following:

- Effective controls over investment transactions
- Appropriate placement of the investment function within the overall organizational structure
- Frequency of oversight meetings

- Investment policies that establish controls designed to safeguard investment assets
- Investment personnel who appear to have the educational background and expertise needed to fulfill their responsibilities

In addition, we noted that controls are in place at Texas Tech University to manage the risk associated with a high concentration of collateralized mortgage obligations in the University's Cash Investment Pool.

This review represents Phase II of the investment practices review that began in fiscal year 1995. A total of 11 entities have been reviewed to date, representing approximately 93 percent of the State's total investment balances. (See Figure 1).



Source: Texas 1995 Comprehensive Annual Financial Report

Existing Oversight Controls Can Be Strengthened Further at Three Entities

The Boards of the Texas Tech University and Texas A&M University System Should Have Access to Outside Investment Professionals to Assist in Overseeing Investment Operations

Although certain members of the oversight boards at Texas Tech University and the Texas A&M University System have investment knowledge and experience, both boards could benefit from direct access to additional independent investment expertise. Investment markets have become increasingly complex in conjunction with rapid advances in technology and global competition. An organizational structure that provides fiduciaries with direct access to independent investment professionals is an added control to ensure all board members are fully informed about issues affecting the investment operations they oversee. Management could also benefit from this ongoing investment assistance. However, the effectiveness of the independent investment professionals will be maximized if they report directly to the oversight boards and are available to perform the following:

- Provide assessments of investment policies and strategies.
- Analyze investment performance.
- Assist with external manager searches.
- Provide training to board members on investment-related issues or act as a resource to answer individual questions.

At Texas Tech University, independent investment experts could assist the Board of Regents in overseeing the implementation of a more complex investment strategy for the University's endowment funds which total approximately \$103 million.¹ A plan is needed to coordinate the transfer of all eligible endowment funds from the University's Cash Investment Pool into the newly created Consolidated Endowment Fund to protect the long-term purchasing power of the endowments. In addition, an asset allocation policy that defines specific asset allocation targets and ranges should be developed to ensure the two external portfolio managers that manage the Consolidated Endowment Fund's assets properly diversify the funds they manage in accordance with the Board's investment objectives and risk tolerance.

The boards at most of the major investing entities in Texas have direct access to outside investment professionals. Fiduciaries that use the services and expertise provided by paid consultants, however, should be aware that financial relationships sometimes exist between consultants and money managers. Disclosures by the consultant and money managers regarding these relationships will help ensure that the members of the oversight board are fully informed when evaluating recommendations. An article appearing in the November 1996 edition of the Plan Sponsor about investment consultant objectivity, including sample disclosure statements for managers and consultants, has been reproduced with permission in Appendix 3.

¹1995 book value including component units.

The Veterans Land Board Should Increase Formal Monitoring of Investment Operations

Although the Veterans Land Board meets frequently, investment operations should be discussed at least quarterly to ensure the Board is informed regarding economic conditions, portfolio changes, investment performance, and compliance with investment policies. According to board meeting minutes, investment-related issues were on the agenda at only one of the ten board meetings held during fiscal year 1995. Texas Tech University Has Controls in Place to Manage the Risk Associated With a High Concentration of Collateralized Mortgage Obligations in Its Cash Investment Pool

Texas Tech University's predominant use of planned amortization class (PAC) collateralized mortgage obligations (CMO) help reduce the risks associated with other types of CMOs. Highly volatile CMO types, such as "interest only," "principal only," and "inverse floaters" are explicitly prohibited by the investment policy. The University also has procedures in place to monitor the CMOs in its portfolio. These controls help ensure management is informed about the risk and impact of significant changes in interest rates on cash flows. Although the University's Cash Investment Pool is not diversified by investment type, with over 78 percent of the pool's funds in CMOs, the University has not experienced liquidity problems even during the volatile interest rate environment that existed between 1992 and 1994.

Overall, the entities reviewed have adequate controls in place over their investment operations. The following table summarizes the areas in which opportunities were identified to further strengthen existing controls:

Figure 2					
Summary of Recommendations					
Investment Practice	Texas Tech University	Texas A&M University System	General Land Office and Veterans Land Board	Department of Housing and Community Affairs	Water Development Board
Oversight	~	~	~		
Organizational Structure					
Investment Policies		~			

Figure 2 (concluded)

Summary of Recommendations					
Investment Practice	Texas Tech University	Texas A&M University System	General Land Office and Veterans Land Board	Department of Housing and Community Affairs	Water Development Board
Operational Policies and Procedures	~	V	~	V	
Transaction Controls					
Reporting and Communication	~	V	~	V	
Human Resource Management	~	V	~		
Public Funds Investment Act Compliance	N/A*	N/A*	N/A**	V	V

* Institutions of higher education having total endowments of at least \$95 million in book value on May 1, 1995, are not subject to the Public Funds Investment Act (Chapter 2246.004[3] Government Code).

** Funds invested by the Veterans Land Board are not subject to the Public Funds Investment Act (Chapter 2246.004[4], Government Code).

Summary of Managements' Responses

Managements' responses to issues discussed in each entity's section of the report are included immediately following the related finding and recommendation.

Summary of Objective and Scope

The primary objective of this project was to review the adequacy of management controls over investment practices at selected state agencies and universities. The five entities covered by this review are:

• Texas Tech University and Texas Tech University Health Sciences Center

- Texas A&M University System
- General Land Office and Veterans Land Board
- Texas Department of Housing and Community Affairs
- Texas Water Development Board

The value of these five entities' investments totaled over \$3.4 billion as of August 31, 1996.

Overall Summary

The combined Texas Tech University and Texas Tech University Health Sciences Center (University) has established internal controls over its investment operations to ensure compliance with investment policies approved by the Board of Regents (Board). The organizational structure delineates clear lines of authority and responsibility, provides for proper monitoring of investment tasks, and promotes efficient coordination and communication. Other strengths include detailed investment policies, timely annual employee evaluations, and effective reporting and communication procedures. Opportunities for improvement were identified in the following areas:

- The Board may benefit from additional investment expertise to oversee the University's investment operations, including the implementation of a more complex investment strategy for its endowment funds. (See Section 1-A.)
- A plan is needed to coordinate the transition of all of the University's existing endowments to the new investment strategy to protect the long-term purchasing power of the endowments. (See Section 1-B.)
- The Board should develop an asset allocation policy that defines specific asset allocation targets and allowable ranges for managers of the Consolidated Endowment Fund. This may require a formal asset allocation study performed by an outside investment consultant. (See Section 1-C.)
- Controls are in place to manage the Cash Investment Pool's high concentration of collateralized mortgage obligations, and the University has not experienced liquidity problems as a result of its diversification strategy. Over 78 percent of the Cash Investment Pool consists of collateralized mortgage obligations. (See Section 2.)
- Opportunities to provide additional useful information to decision makers and improve the completeness of certain policies and procedures are discussed in Sections 3 and 4, respectively.

Section 1:

The Board of Regents Could Benefit From Additional Investment Expertise

Section 1-A:

The Board of Regents Should Consider Obtaining the Services of Outside Investment Professionals to Assist With Its Investment Oversight Responsibilities

Although certain members of the Board of Regents appear to have investment knowledge and experience, the Board should consider obtaining assistance from outside investment professionals to aid in overseeing the University's \$487 million portfolio. Various options are available for consideration, such as an investment advisory committee consisting of outside investment professionals, paid investment advisors, or a combination of both.

Investment markets have become increasingly complex in conjunction with rapid advances in technology and global competition. An oversight structure that provides the Board with direct access to independent investment expertise is an added control to ensure the Board is informed regarding all aspects of the University's investment operations within this volatile environment. Management could also benefit from this ongoing investment assistance. However, the effectiveness of the independent investment professionals will be maximized if the advisors report directly to the Board and are available to perform the following:

- **Provide assessments of investment policies and strategies.** The external investment experts should be available to brief the Board on both policy and operational issues. The information and recommendations the Board uses to monitor investment operations and make investment decisions are prepared by internal investment staff. The use of an independent professional to analyze and/or validate the staff's recommendations regarding policies and strategies would strengthen oversight controls.
- Analyze investment performance. The independent advisor(s) should be available to provide the Board with performance assessments of the University's investment operations and external managers. In August 1996, the University implemented a more complex investment strategy for its endowment funds and hired two external investment firms to manage the funds. The investment advisor(s) could assist management and the Board in evaluating these external managers and assessing whether actual investment returns are reasonable in relation to the level of risk taken.
- Assist with external manager searches. Investment consultants maintain large databases on investment professionals and could assist the Board in searching and screening potential portfolio manager candidates. If a consultant

is not used, an advisory committee could assist in developing manager selection criteria and evaluating final candidates.

Provide training to Board members on investment-related issues or act as a resource to answer questions. Although the current Board may have individual members with investment knowledge and expertise, appointees are not required to have investment experience. In addition, three of the four Board members responding to our survey indicated that they had not received training on investment-related issues. Periodic training classes and access to investment experts who can answer questions would enable individual Board members to acquire and/or maintain the technical knowledge needed to oversee the University's investment operations.

The use of investment advisory committees, paid consultants, or both is a common practice at most major investing entities in Texas. Investment advisory committees are usually made up of highly respected investment professionals who give of their time to meet regularly with management and the board to discuss investment-related issues. Investment consultants, on the other hand, are paid professionals who offer a number of services and expertise for a fee. While an investment advisory committee offers a cost advantage, the paid consultant can provide more extensive time and resources for monitoring day-to-day operations. (More information regarding the use of consultants is found in Appendix 3.)

Recommendation:

The Board should obtain the services of outside investment professionals, such as an investment advisory committee or paid consultant, to assist with its investment oversight responsibilities. The outside expert(s) should be hired or appointed by the Board and be available to perform specific tasks for the Board, such as analyzing investment policies and strategies, evaluating investment performance, and assisting with external portfolio manager searches. The advisor should also be available to provide formal and informal investment-related training to individual Board members. If an investment consultant is used, the Board should consider establishing disclosure requirements such as those identified in Appendix 3.

Management's Response:

The use of either an independent investment advisory committee or an independent consultant will be considered. The advice and assistance obtained could help management in developing asset allocation and spending targets, evaluating investment strategies, assessing the performance of investment managers and recommending changes in investment policies to the Board of Regents. Such experts could also assist management in the development of contingency plans to address potential risks associated with a prolonged downturn affecting the Consolidated Endowment Fund. These plans would be presented to the Board of Regents for its consideration. In addition to providing detailed assistance to management, an independent advisory committee or investment consultant could provide periodic training and input for members of the Board of Regents.

Section 1-B:

A Formal Plan Is Needed to Coordinate the Transfer of Eligible Endowments into the Consolidated Endowment Fund

A plan is needed to coordinate the transfer of all eligible endowment funds from the Cash Investment Pool into the Consolidated Endowment Fund (Fund) to protect the long-term purchasing power of the endowments. The University's endowments should also be managed under a unified investment philosophy and strategy to increase potential economies of scale within the Fund. The combination of a high spending rate, hold-to-maturity investment strategy, and narrow asset mix may result in lost purchasing power for endowments in the Cash Investment Pool over the long term. The objectives and strategy established for the newly created Consolidated Endowment Fund, however, are specifically designed to preserve endowment purchasing power and are comparable to the strategies employed by most institutions participating in a national survey.

Figure 3

Inflation will erode the long-term purchasing power of an endowment unless the average spending rate from the endowment does not exceed the long-term real return of its investments. For example, if an endowment spends an average of 6 percent of its market value each year and its investments only generate an average inflation-adjusted return of 5 percent, the endowment will lose 1 percent of its purchasing power over time. Investment strategies for endowment funds must balance the trade-off between short-term spending requirements and the need to preserve future purchasing power. To maintain an endowment's purchasing power over time, average investment returns must be high enough to cover endowment spending needs as well as inflation.

<u>Investment Returns</u> - The investment strategy employed for the University's Cash Investment Pool is significantly different than the strategy employed by most institutions included in the

1995 National Association of College and University Business Officers (NACUBO) Endowment Study and may result in lower-than-average returns in the long term. The University's 1995 total return² of 12.1 percent ranked 333rd out of 394 institutions in the NACUBO study.

Endowment funds in the University's Cash Investment Pool are invested entirely in fixed-income securities, cash, and cash-equivalent investments. While fixed-income securities can provide a stable income stream until maturity, the long-term inflation-adjusted, or "real," return of a fixed-income portfolio is low compared to a diversified portfolio that includes equity securities. Since 1901, the long-term, inflation-adjusted return for a fixed income portfolio is 2.2 percent compared to 5.1 percent for a

²The sum of income earned and appreciation, both realized and unrealized, for a specified period of time.

portfolio that allocates 60 percent to equities.³ Equities, as an investment class, have historically increased in value at a rate greater than inflation.

Less than 2 percent of the institutions in the 1995 NACUBO Endowment Study invest exclusively in fixed-income securities and cash equivalents. Over 76 percent of the institutions in the NACUBO study invest at least 50 percent of their endowment assets in common stock.

<u>Spending Policy</u> - The spending policy for endowments in the University's Cash Investment Pool is also different than most other endowments and may result in higherthan-average payout rates. Currently, endowments in the Cash Investment Pool receive distributions representing 90 percent of current income. The remaining 10 percent of current income is reinvested. Only 2.8 percent of the respondents in the NACUBO study have incorporated spending rules comparable to the Cash Investment Pool guidelines. In 1995 this resulted in a payout rate in excess of 6 percent compared to less than 5 percent for most other endowments in the study. Over 59 percent of the institutions employ spending rules similar to those contained in the Consolidated Endowment Fund's investment policy.

<u>Consolidated Endowment Fund</u> - The newly created Consolidated Endowment Fund appears to have been structured to achieve a proper balance between short-term spending requirements and the need to preserve future purchasing power. Currently however, only 20 percent of the University's total endowment dollars are included in the Fund. The Fund's investment policy states:

The financial goal for management of endowment funds is to preserve the real purchasing power of the endowment principal and income after accounting for endowment spending, inflation and costs of investment management.

Department administrators have been encouraged to adopt the new investment strategy for their endowments but are not required to transfer existing endowments into the Fund.

While it is important to solicit input from department administrators, the Board of Regents, as fiduciaries, should direct the implementation of a new investment strategy for the University's endowments. Endowment beneficiaries may not have sufficient objectivity to make decisions that could impact endowment spending in the short term.

Recommendation:

The University should develop a formal plan to coordinate the transfer of all eligible

³*The University of Texas System Investment Planning Review*, Cambridge Associates, Inc., September 1994.

endowments in the Cash Investment Pool to the Consolidated Endowment Fund. An independent advisory committee or consultant could assist management to structure the transition to minimize the short-term impact on spendable income.

Management's Response:

The Board of Regents created the Consolidated Endowment Fund to address the lost purchasing power of endowment funds invested in the Cash Investment Pool. The initial \$20 million dollar transferred from the Cash Investment Pool to the Consolidated Endowment Fund was only the first phase of the University's plan to incorporate eligible endowment funds in the appropriate investment strategy. As part of the University's continual plan to evaluate endowment funds for inclusion in the Consolidated Endowment Fund, another \$6.8 million has been transferred. In addition, another endowment account review process is currently being undertaken. This review evaluates the current commitments of each endowment to determine the optimal time to convert investment philosophy. It should be noted that department administrators do not have the authority to direct the investment of endowment accounts. Rather, they assist management in determining the tradeoff between the short-term spending requirements and the need to preserve the future purchasing power of the endowment. While this study is still in process, at least \$5.3 million of additional endowment balances have been identified for possible transfer into the Consolidated Endowment Fund.

New endowment funds are invested in the Consolidated Endowment Fund. The investment of new monies into equity securities will become very important as a capital campaign of significant proportions will soon be announced.

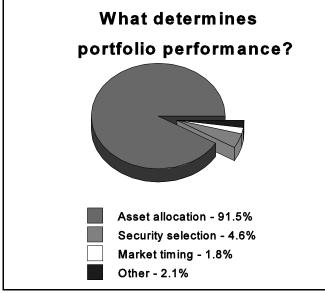
As discussed in the previous section, the University will be considering the use of an independent advisory committee or consultant. The University's process for the transfer of eligible endowments will be addressed with these experts and a more formal plan to coordinate future transfers will be developed for consideration by the Board of Regents.

Section 1-C:

The Board Should Develop Specific Asset Allocation Targets for the Consolidated Endowment Fund

The investment policy for the Consolidated Endowment Fund establishes general guidelines for allocating assets between different investment types but does not include specific targets. The Board should develop an asset allocation policy that defines specific asset allocation targets and ranges.

Figure 4



Source: Brinson, Singer, and Beebower, "The Determinants of Portfolio Performance II: An Update," *Financial Analysts Journal*, 1991. Current procedures allow the University's external managers to separately determine their own asset mixes with periodic review by the Board and management. At other entities in Texas, the asset mix decision is the responsibility of the oversight board. Due to the complex nature of the strategic asset allocation process, the Board may require assistance from an outside investment consultant.

Investment professionals have indicated that allocating assets among various investment classes is the most important component of an investment strategy. (See Figure 4.)

Since the appropriate asset mix for a portfolio is a function of the Board's objectives and risk tolerance, the Board should identify the best asset mix for the Consolidated Endowment Fund and then establish specific asset allocation targets for the University's external managers to follow. These targets tell managers how to diversify the funds they manage to maximize potential investment returns without assuming unacceptable levels of risk. For example, if 70 percent of the Fund's assets are to be invested in equity securities, asset allocation targets might direct portfolio managers to invest specific percentages of the funds they manage in large, medium, and small capitalization stocks. Currently, the University's external portfolio managers set the actual asset mixes for the funds they manage within broad guidelines defined in the investment policy.

Specific targets and allowable ranges should be defined to help ensure portfolio managers do not assume unacceptable levels of risk to achieve higher returns. In addition, separate asset mixes determined by each external manager may not "roll up" into the optimal asset mix for the Consolidated Endowment Fund as a whole.

At other entities in Texas, the asset mix decision is the responsibility of the oversight board. For example, the boards of Texas A&M University System, The University of Texas Investment Management Company, Texas Permanent School Fund, Employees Retirement System, and Teacher Retirement System set the long-term asset allocation targets or ranges for the funds they oversee. Due to the specialized knowledge that is required to perform asset mix analysis, oversight boards and management often contract with investment consultants to periodically perform asset allocation studies. The Board of Regents of The University of Texas System had an asset allocation study performed on its endowment investment pool in 1994. The Teacher Retirement System (1995) and the Texas Permanent School Fund (1994) have also had recent asset allocation studies. The Employees Retirement System's investment policy requires a formal asset allocation study "at least every five years" along with annual evaluations of the asset mix by investment staff.

Recommendation:

The Board should develop an investment strategy statement for the Consolidated Endowment Fund with specific asset allocation targets. Policy ranges should be established to allow the investment managers to take advantage of tactical (or nearterm) investment objectives. The Board should consider hiring a consultant to perform a formal asset allocation study to assist the Board in establishing the optimal asset mix for the Fund as a whole.

Management's Response:

We agree that asset allocation decisions are the most critical decisions affecting the investment performance of our endowment accounts within the Consolidated Endowment Fund. Current procedures include the periodic review of asset allocation decisions by investment managers. These reviews allow for the University to adjust the asset mix as considered necessary.

A more formal review of the asset allocation process incorporating the possible use of consultants will be considered. Such a study may assist the University in establishing the optimal asset mix. Incorporation of specific asset allocation targets within the applicable investment policy statement will be considered.

Section 2:

Controls Are in Place to Manage the High Concentration of Collateralized Mortgage Obligations in the University's Cash Investment Pool

Section 2-A:

The University's Predominant Use of Planned Amortization Class Collateralized Mortgage Obligations Help Reduce Risk

All investments are subject to various risks such as credit and market risk. Collateralized mortgage obligations (CMO) are also subject to prepayment and extension risk. The University's predominant use of planned amortization class (PAC) CMOs help reduce these risks in the Cash Investment Pool. Highly volatile CMO types, such as "interest only," "principal only," and "inverse floaters" are explicitly prohibited by the investment policy.

Figure 5

A collateralized mortgage obligation is a mortgage-backed bond that separates mortgage pools into different maturity classes, called *tranches*. This is accomplished by applying income (payments and prepayments of principal and interest) from mortgages in the pool in the order that the CMOs pay out. Tranches pay different rates of interest and can mature in a few months, or as long as 20 years. <u>Planned Amortization Class CMO's</u> - The University's predominant use of planned amortization class CMOs helps reduce the University's exposure to prepayment and extension risk. PACs were created to give investors more predictable cash flows and more stable average lives than other CMO tranches. PACs are less volatile because they have priority over other tranches to receive a predetermined schedule of principal payments over a range of prepayment scenarios. As long as prepayment speeds remain within the predetermined

"prepayment band," the PAC tranche has a fixed principal payment schedule that must be met before other tranches receive principal payments. It is only when the actual mortgage prepayment speeds become faster or slower than the set PAC prepayment band that cash flows become volatile and expose the security to prepayment or extension risk. Over 98 percent of the University's CMOs are from PAC tranches.

<u>Prepayment and Extension Risk</u> - Over 78 percent of the University's Cash Investment Pool is invested in collateralized mortgage obligations. While CMOs provide investors with increased security about the life of their investment compared to purchasing a whole mortgage-backed security, they are still subject to risks which could impact cash flows, average maturity lengths, and market values.

For example, if mortgage rates drop sharply, causing a flood of refinancings, prepayment rates will increase and CMO tranches will be repaid before their expected maturity (*prepayment risk*). This could result in lost revenue opportunities if the prepaid principal is reinvested in lower-yielding securities. Conversely, if mortgage rates rise sharply, prepayment rates will slow down and therefore extend the maturity of the CMO beyond the expected maturity date (*extension risk*). If the maturity is extended significantly, the ensuing lower cash flows received over a longer period of time results in lower yields for the investor. The market value of the security also decreases.

<u>Other Risks</u> - Because the University's collateralized mortgage obligations are guaranteed by the U.S. Government, *credit risk*, or the risk of default, is low for these securities. *Market Risk* is the risk that the market value of an investment will decline. This risk is affected by the length to maturity of a security and the need to liquidate a security before maturity. The University maintains a passive, hold-to-maturity strategy in the Cash Investment Pool. Sound cash management procedures, including daily cash flow projections, a 6 percent liquidity reserve, and monthly portfolio "stress test" analysis, reduce the risk that the University will experience realized losses from the sale of securities before maturity. Management's Response:

We concur with the report's finding that the use of Planned Amortization Class CMOs assisted the University in reducing its exposure to prepayment and extension risks.

Section 2-B:

Procedures Are in Place to Monitor the University's Collateralized Mortgage Obligation Investments

The University has procedures in place to monitor its collateralized mortgage obligations (CMO) and mortgage-backed securities (MBS). These controls help ensure that management is informed regarding risk levels in the portfolios and the impact of significant changes in interest rates on cash flows.

On a monthly basis, the University's CMO and MBS securities are analyzed externally to determine the effect various changes in interest rates will have on the portfolios. This risk assessment is performed using criteria developed by the Federal Financial Institutions Examination Council (FFIEC) for high-risk mortgage securities.

According to the April 1996 FFIEC Risk Analysis report, the University's overall CMO/MBS portfolio would be considered low risk in accordance with the FFIEC criteria. Fifty-five out of 286 individual securities in the portfolio, or 19 percent, failed the test. However, the majority of the failures (76 percent) only failed the price sensitivity test. Because the University follows a hold-to-maturity strategy, price sensitivity alone is not a major risk factor. (See Table 6.)

Figure 6

FFIEC Stress Test Results: April 1996					
Number of Securities: 286					
Original Face Value: \$331,186,500					
FFIEC High Risk Criteria	Texas Tech University Portfolio	Pass/Fail			
The average life of the security, assuming stable interest rates, should be 10 years or shorter.	5.29 years	Pass			
Assuming an immediate 3 percent increase in rates, the security's average life should not extend more than four years.	+0.89 years	Pass			
Assuming an immediate 3 percent decline in rates, the average life should not shorten more than six years.	-3.27 years	Pass			
If rates move immediately up or down 3 percent , the price change of the security should be less than 17 percent of the current market value.	up 300 bps: -13.10% dwn 300 bps: + 7.49%	Pass			

On a quarterly basis, cash flow projections are performed for each scenario (flat interest rate environment, immediate and sustained 3 percent increase in rates and 3 percent decrease in rates).

Management's Response:

We concur with the comments that adequate procedures are in place to monitor and report the University's holdings in collateralized mortgage obligations and mortgage-backed securities.

Section 2-C:

The University Has Not Experienced Liquidity Problems as a Result of Its Diversification Strategy

Although the Cash Investment Pool is not diversified by investment type, the University has not experienced liquidity problems. Typically, diversification is used to reduce overall risk to a portfolio by investing funds in various instruments, each having different risk levels. According to University management, the Cash Investment Pool's high concentration of CMOs and MBSs achieves an appropriate level of diversification through investment in over 200 mortgage pools.

Approximately 86 percent of the Cash Investment Pool, or \$341.7 million, is invested in CMO and MBSs. The high concentration of CMOs has not caused the University to experience liquidity problems even during the volatile interest rate environment of the early 1990s. Interest income from CMOs and MBSs was steady from April 1992 through May 1996, even though cash flows from principal repayments fluctuated significantly. In addition, the Cash Investment Pool's yield volatility has decreased by half since adopting this strategy.

Management's Response:

We agree with the conclusion that the use of CMOs has not caused liquidity problems. The use of CMOs has decreased the Cash Investment Pool's yield volatility.

Section 3:

There Are Opportunities to Provide Additional Useful Information to Decision Makers

Overall, controls are in place to ensure useful information is provided to decision makers in a timely manner. However, investment reports could be even more useful by including additional information:

- Ensure that investment performance is measured and reported in terms of the stated objectives. Investment reports for the Cash Investment Pool should compare its performance against appropriate benchmarks. Performance measures are an important control, allowing decision makers to evaluate how well funds are being managed. Benchmarks can also provide a framework for the Board's expectations regarding anticipated returns and acceptable risk. Significant deviations from the benchmark could indicate that managers are accepting too little or too much risk.
- Investment reports should include separate analysis of endowment funds. Endowment funds represent approximately 25 percent of the Cash Investment Pool and 100 percent of the Consolidated Endowment Investment Pool. As fiduciaries of the endowments, the Board would benefit from separate analysis of these funds at least annually. Useful information might include:
 - Beginning and ending book and market values by asset type
 - Contributions and distributions during the period
 - Income growth/decline from the prior year
 - Endowment distributions and payout rate
 - Total return on investments
 - Annual real return on investments (adjusted for inflation)
 - Annual comparison with peer institutions (NACUBO Endowment Study results)
- Management should report the results of the FFIEC "stress test" analysis performed on the Cash Investment Pool's CMO and MBS investments. On a monthly and quarterly basis, management analyzes the impact that various changes in interest rates would have on the cash flows and market values of the University's collateralized mortgage obligation and mortgagebacked security investments. The results of this risk assessment should be reported to the Board at least annually. (See discussion of FFIEC stress test on page 14.)
- Investment reports should provide both beginning and ending market values. Currently, monthly investment reports show beginning and ending book values and ending market values. Beginning market values should also be reported to enable decision makers to determine how much assets have increased or decreased in value during the period.

Recommendation:

Investment reports should measure investment performance against appropriate benchmarks and include both beginning and ending market values. Separate analyses

should be performed on endowment funds. On an annual basis, management should report to the Board the results of the FFIEC "stress test" analysis performed on the Cash Investment Pool's CMO and MBS securities.

Management's Response:

In the future, the quarterly and annual Cash Investment Pool performance reports will compare the Pool's performance against appropriate benchmarks. Further, the annual Cash Investment Pool report will include an analysis of the endowment funds included in the Pool. All investment reports will include both the beginning and the ending market values. Finally, the annual investment report will include a "stress test" analysis of CMO and MBS investments.

Section 4:

There Are Opportunities to Improve the Completeness of Certain Policies and Procedures

Overall, the University's investment policies and procedures appear to be appropriate and reasonable for its investment types and its investment goals and objectives. Internal controls over investment transactions appeared to be operating as designed and operations were in compliance with the investment policies. We did identify, however, the following opportunities for improvement:

- Board members and University employees should sign an ethics statement, and financial disclosure statements should be reviewed periodically. Overall, the University's ethics policy clearly distinguishes between allowable and unacceptable relationships and practices. The policy contains conflict of interest restrictions and clearly describes the types of benefits/gifts/honoraria that can and cannot be accepted. The policy could be strengthened, however, by requiring Board members and University employees to sign an ethics statement to formally acknowledge their understanding of the required standards of conduct. In addition, the financial disclosure statements submitted by Board members should be reviewed periodically by the University's Internal Audit Department to ensure compliance with conflict of interest laws and regulations.
- Employee evaluations for investment personnel should include criteria specific to the investment function. Currently, investment personnel are evaluated using a standard list of performance factors such as attendance, quality of work, initiative, work habits, dependability, and quantity of work. Personnel evaluations for investment personnel could be improved by expanding evaluation criteria to include job responsibilities specific to the investment function. For example, evaluation criteria might include compliance with investment policies. Evaluations for personnel responsible

for recommending and implementing investment strategies might include criteria relating to the achievement of the University's investment performance goals and objectives.

The Board should review investment policies at least once a year. Although the Cash Investment Pool and Consolidated Endowment Fund investment policies were revised in 1995 and 1996, respectively, the Board of Regents should establish a formal policy requiring an annual review. Since the University is exempted from the Public Funds Investment Act, it is not required to review investment policies on an annual basis. However, this practice is a good control to ensure that policies are up to date and appropriate for prevailing market conditions.

Recommendation:

We recommend that Board members and employees sign an ethics statement to acknowledge that they have received, read, and that they understand the University's ethics policy. Financial disclosure statements submitted by Board members should be reviewed periodically by the Internal Audit Department for compliance with conflict of interest laws and regulations. Evaluations for personnel responsible for the University's investment operations should include criteria to measure the achievement of investment objectives and compliance with investment policies. Investment policies should be reviewed on an annual basis.

Management's Response:

The investment policies for the Cash Investment Pool and the Consolidated Endowment Fund will be presented to the Board of Regents annually for review and approval.

The University will consider an amendment of the investment policies requiring Board members and applicable University employees to submit an ethics statement formally acknowledging their understanding of the required standards of conduct.

Review of the employee evaluations for investment personnel will be considered. Such evaluations may be expanded to include compliance with investment policies and implementing strategies consistent with these policies.

Overall Summary

Overall, investment practices at the Texas A&M University System (System) appear adequate to ensure accountability for the System's investments, although some enhancements to existing oversight, portfolio monitoring, and policies and procedures are recommended. Major strengths included:

- The effectiveness of controls over investment transactions
- The appropriateness of the organizational structure of the investment function and its position within the System
- The comprehensiveness of ethics policies

In addition, key investment personnel appeared to have the necessary educational background and experience to fulfill their responsibilities.

The oversight capabilities of the System's Board of Regents (Board) could be enhanced through ongoing investment assistance by an independent advisor and the inclusion of additional useful information in investment reports provided to decision makers. (See Section 1-A.)

Opportunities to improve various monitoring activities, the completeness of certain policies and procedures, and other areas affecting investment operations are discussed in Sections 2 through 6.

Section 1:

Oversight of Investment Operations Could Be Strengthened Through Ongoing Investment Assistance and Improved Reporting

Section 1-A:

The Board Should Establish a Formal Relationship With an Independent Consultant to Assist With Ongoing Investment Oversight

The Texas A&M University System Board of Regents should have direct access to an independent investment advisor to assist in overseeing the System's \$873 million investment portfolio. Management has used board-approved consultants in the past and is currently searching for an independent advisor to provide ongoing assistance. The effectiveness of the new investment advisor could be maximized if he or she reports directly to the Board and is available to assist the Board in overseeing the System's investment operations.

Investment markets have become increasingly complex in conjunction with rapid advances in technology and global competition. An independent consultant who reports directly to the Board is an added control to ensure the Board is informed regarding all aspects of the System's investment operations within this complex environment. In addition to assisting the Treasury Services Department with day-today management activities, the ongoing investment advisor should also be available to perform the following for the Board:

- Provide assessments of investment policies and strategies. The external investment advisor should be available to brief the Board on both policy and operational issues. The information and recommendations the Board uses to monitor investment operations and make investment decisions are prepared by internal investment staff. The use of an independent professional to analyze and/or validate the staff's recommendations regarding policies and strategies would strengthen oversight controls.
- Analyze investment performance. The independent advisor should be available to provide the Board with assessments of the System's nine external investment managers and the System's internal Short-Term Portfolio manager. The Board adopted a new investment strategy in February 1995 which included hiring external investment managers for the majority (82 percent) of the System's funds when implemented in May 1995. The System's investment staff estimates that the new strategy increased the annualized total return for the 13-month period ended June 30, 1996, by over 350 basis points. Independent performance evaluations might include assessments of whether actual investment returns are reasonable in relation to the level of risk taken.
- Assist with external manager searches. Investment advisors maintain large databases on investment professionals and could assist the Board in searching and screening potential portfolio manager candidates.
- Provide training to Board members on investment-related issues or act as a resource to answer questions. Although not required, certain members of the current Board have investment knowledge and expertise. However, four of the seven Board members responding to our survey indicated that investment-related training would be helpful. Periodic training classes and access to investment experts who can answer questions would enable individual Board members to acquire and/or maintain the technical knowledge needed to oversee the System's investment operations.

The services and expertise provided by consultants can be a valuable resource for fiduciaries who oversee investment operations. However, the Board should be aware that financial relationships sometimes exist between consultants and money managers. Disclosures by the consultant and money managers regarding these relationships will help ensure that the Board is fully informed when evaluating recommendations. An article appearing in the November 1996 edition of the *Plan Sponsor* about investment consultants, has been reproduced with permission in Appendix 3.

Recommendation:

The Board should establish a formal relationship with an independent investment advisor to assist with its investment oversight responsibilities. The outside consultant should report directly to the Board and be available to perform specific tasks for the Board, such as analyzing investment policies and strategies, evaluating investment performance, and assisting with external portfolio manager searches. The advisor should also be available to provide formal and informal investment-related training to individual Board members. The Board should consider obtaining disclosures from the investment consultant and external managers referred to in Appendix 3 in order to be fully informed when evaluating recommendations.

Management's Response:

The System agrees that a qualified investment advisor can contribute to the success of its investment programs by providing independent advice and analysis. The System is in the process of hiring an investment advisor, who will have access to the Board through its Finance Committee. The advisor will perform tasks such as analyzing investment policies and strategies, evaluating investment performance, and assisting with external portfolio manager searches. The investment advisor will also be available to provide formal and informal investment-related training to the Board as requested.

The System receives information on potential conflicts of interest in the consultant RFP process. Much of the disclosure in Appendix 3 deals with soft-dollar trading which the System does not use to pay for services. Nevertheless, the System will use, as appropriate, applicable sections of Appendix 3 in future disclosure requests.

Section 1-B:

There Are Opportunities to Provide Additional Useful Information to Decision Makers

Board oversight of investment operations could be enhanced by including additional useful information in periodic investment reports. In addition to describing the results of investment operations, these reports should also demonstrate compliance with key investment policies. The following types of information should be considered when evaluating the reporting needs of the Board:

- Beginning and ending market values for the reporting period⁴
- Additions and changes to investments during the period⁴
- Cash inflows by source (interest, dividends, new money), including trends over several periods
- Cash outflows from investment funds

⁴Required by Section 51.0032 of the Texas Higher Education Code.

- Compliance with significant policy restrictions, such as actual asset allocation percentages versus policy targets and actual endowment payout rate versus spending policy
- Quarterly or annual information on brokers used and brokerage costs
- Analysis of economic trends and the potential impact on investment portfolios
- Securities lending activity
- Peer group comparisons of external investment managers
- Endowment performance versus peer institutions

Monthly reports from the System's Custodian Bank and external investment managers are major sources of information. These investment reports are detailed and can be used to provide the Board with most of the information suggested above. A review of the reporting capabilities of these and other external sources might also result in additional useful information for decision makers.

Recommendation:

We recommend that management consider providing additional information on investments to the Board. Reports should be developed which show, at a minimum, beginning and ending market values and additions and changes to the market value during the period as required by the Texas Education Code. Consideration should also be given to developing reports and communicating information documented in the list above and any other areas identified by the Board and staff members. The System should work with its external managers and Custodian Bank in order to design reports that may better serve the informational needs of decision makers.

Management's Response:

Management has taken steps to provide the Board with additional information. Effective June 1996, the Legislative Budget Board began requiring quarterly and annual reports on investments. These reports include the following information for the respective periods: beginning and ending market values, beginning and ending book values, additions and withdrawals, interest and dividends, realized gains and losses, asset allocation, and performance return. Effective August 31, 1996, these reports were also transmitted to the Board of Regents. They will be sent to the Board on a quarterly basis.

The Board currently receives investment performance reports on a quarterly basis. These reports provide performance information on each manager which is compared against applicable benchmarks. There have only been five calendar quarters since the restructuring of investment managers in May 1995. As each of the manager accounts acquires historical performance, comparison against other managers will also be provided.

Management will continue to work with the Finance Committee of the Board, the investment advisor, and the custodian bank to enhance its quarterly reports.

Section 2:

There Are Opportunities to Improve Certain Investment Monitoring Procedures

Section 2-A:

The Results of Portfolio Monitoring Procedures Should Be Documented

The System's controls over investments could be improved by documenting the results of portfolio monitoring procedures. Although review procedures are performed, the lack of documentation makes it difficult to determine the extent and appropriateness to which the investment portfolio is monitored. We identified the following opportunities for improvement:

- Quarterly investment reports provided to executive management and the Board should demonstrate compliance with key investment policies. Although the System's investment policies have numerous requirements such as authorized types of investments, restrictions on the percentage ownership of companies, asset allocation targets, and maximum maturities, there are no regular reports documenting compliance with these provisions.
- The results of due diligence reviews of external managers should be documented. Meetings are held with each of the external managers three times a year, but the objectives and results of the meetings are not documented. According to investment staff, these meetings are used to determine if the external managers have changed procedures or investment strategies and maintained compliance with investment policies. These meetings are also used to assist the staff in preparing an annual evaluation of the external managers. However, since these visits are not documented, the extent of the review is unclear and the resulting conclusions are neither supported nor available for reference during subsequent reviews.
- Supervisory reviews of the quarterly investment report should be documented. The quarterly report is the only investment report that the Board sees regularly. The investment analyst is responsible for preparing this report, which details the performance of the investment portfolio, including the investment analyst's own portfolio. Drafts of the quarterly investment report with supporting documentation should be maintained and supervisory reviews should be documented to demonstrate that the accuracy of information reported to the Board has been verified.

Recommendation:

We recommend that the results of portfolio monitoring procedures be formally documented. Specifically:

- Investment policies should be reviewed and significant compliance requirements identified. These significant compliance requirements should then be monitored by investment staff and documented through reports to executive management and the Board. This may require coordination with the Custodian Bank and external managers to ensure external reports contain all pertinent information.
- The results of due diligence meetings with external portfolio managers should be documented.
- Reviewed drafts of the quarterly investment report with supporting documentation should be retained.

Management's Response:

Management will provide a Certification of Investment Policy Compliance to the Board with each quarterly investment performance report.

Three times each year the staff meets with external managers to confirm that the managers are performing their duties according to their stated discipline and in accordance with System Policy. These meetings will be appropriately documented.

The quarterly investment performance reports are reviewed by the Deputy Chancellor for Finance and Operations prior to distribution under his signature. Drafts of such reports will be retained for a reasonable period.

Section 2-B:

Monitoring Procedures Over Custodian Bank Operations Can Be Improved

The System performs limited monitoring of its Custodian Bank, although significant reliance is placed on its controls and operations. Monitoring procedures can be improved by reviewing the Custodian Bank's audited financial statements and reports on internal controls and by performing reasonableness tests on investment income collections. These procedures will reduce the risk of undetected errors and provide additional assurance that the operations and controls of the Custodian Bank are operating effectively.

Independent assessments of the Custodian Bank's internal control structure and audited financial statements provide important information regarding the Custodian Bank's operations. The Custodian Bank is required to have its procedures and controls reviewed under *Statement of Auditing Standards Number 70* (SAS 70) by an independent auditor. A SAS 70 review provides valuable information regarding the adequacy of the Custodian Bank's internal control structure. Weaknesses in internal controls could result in errors affecting the System's investment operations. (The System recently requested this report from its Custodian Bank.) Audited financial

statements should also be reviewed to monitor the Custodian Bank's financial health and to identify potential problems in time to take corrective action.

In addition, procedures should be performed to ensure the Custodian Bank has controls in place to collect all interest and dividend income from the System's investments. Reasonableness tests, such as comparing interest and dividend receivables with actual receipts, can provide further assurance that the Custodian Bank's income collection controls are functioning appropriately.

The Custodian Bank provides several services to the System such as collecting interest and dividend payments, processing investment purchase and sales transactions, administering securities lending operations, and preparing investment performance reports.

Recommendation:

We recommend that the System review all SAS 70 reports and audited financial statements of the Custodian Bank. Identified weaknesses should be discussed with the Custodian Bank. Also, a sample of investment income collections should be tested by the accounting staff as a reasonableness check on the Custodian Bank's income collection system.

Management's Response:

The SAS 70 report and audited financial statements of the custodian bank have been reviewed. These reports will be received and reviewed on an annual basis. Any weaknesses will be discussed and responses documented.

A sample of investment collections will be tested as a reasonableness check on the custodian bank's income collection system.

Section 3:

The Completeness of Certain Policies and Procedures Could Be Improved

Section 3-A:

Additional Control Elements Should Be Added to the Investment Policy

Overall, the System has well-defined investment policies providing appropriate guidance for most investment operations. The completeness of these policies, however, could be enhanced by establishing criteria in the following areas:

• Investment policies should set limits on the percentage of market value of a portfolio that can be invested in a particular company, industry, or sector. Currently, the policies limit stock ownership to no more than 4.9

percent of the outstanding stock of a company. The additional guidelines will provide further assurance that proper diversification is achieved in the System's portfolios.

• Performance benchmarks should be included in the investment policy of the Cash Concentration Pool's Short-Term Portfolio. Although benchmarks are used in investment performance reports, these benchmarks have not been formally incorporated into the Board-approved investment policy.

Recommendation:

We recommend that the Board enhance diversification guidelines by setting limits on the percentage of investment allowable in a single company, industry, or sector. Additionally, performance benchmarks for the Short-Term Portfolio should be formally incorporated into the investment policy.

Management's Response:

Management concurs, and a revised investment policy was approved by the Board of Regents on December 6, 1996, addressing these points.

Section 3-B:

Financial Disclosure Statements Should Be Completed and Retained as Required by the System's Ethics Policy

Financial disclosure statements were not located for key executive management personnel, and certain investment staff members have yet to certify that they have received and reviewed the System's ethics policy. These statements are necessary to ensure standards of conduct have been properly communicated and to verify compliance with conflict of interest regulations.

Section 07.013 of the System's ethics policy requires persons who exercise discretion with regard to the investment or management of funds to disclose financial interests annually. Board members are required to submit financial disclosure statements with the Texas Ethics Commission on an annual basis.

Recommendation:

Financial disclosure statements prepared by System staff members who have discretion with regard to the investment or management of funds should be filed and retained each year as required by the System's ethics policy. The System's Internal Audit Department should review the financial disclosures made by employees and Board members as part of its annual audit of investment operations to ensure compliance with conflict of interest laws and regulations. In addition, all personnel from the Treasury Services Department should sign the Employee's Certification form acknowledging receipt and review of the ethics policy.

Management's Response:

All employees with responsibility over the System's investment programs have now executed financial disclosure statements. The disclosures are on file with the Chancellor's office.

In addition, all employees with responsibility of investments have taken the System Ethics Policy Training class provided by the System General Counsel. Certification of attendance will be retained in their personnel files.

Section 3-C:

The Treasury Services Department's Procedures Manual Should Be Reviewed and Updated Periodically

The Treasury Services Department has not reviewed or updated its daily operating procedures manual for investments. The current investment staff members have been in their positions for several years and are familiar with the investment functions. However, this does not preclude the need for maintaining up-to-date, written operating procedures. Formal operating procedures provide consistent guidelines and enable investment functions to run more smoothly during the absence of an individual or the hiring of new employees.

Recommendation:

The Treasury Services Department should review and update its procedures manual at least annually.

Management's Response:

Management agrees that the procedures manual should be updated on a regular basis. The Treasury Services Department will annually update its procedures manual.

Section 4:

Policies and Procedures Over the System's Securities Lending Program Can Be Enhanced

The current securities lending contract contains provisions to protect the System from substantial losses. Enhancements, however, in the areas of contract terminology,

compliance monitoring, and oversight could minimize the System's risk of loss even further and help ensure expectations for the securities lending program are achieved.

The System's securities lending contract incorporates the following provisions which serve as major controls to safeguard its assets:

- Borrowers are required to provide collateral with a market value at least equal to 102 percent of the market value of the loaned securities.
- The market value of the collateral may never be less than 100 percent of the market value of the loaned securities.
- Limitations are placed on allowable investment types and the maturities of investments purchased with cash collateral.

Although the above provisions are designed to protect the System from experiencing significant losses, additional enhancements may reduce this risk even further. Examples seen in the securities lending contracts of other major investing entities in Texas include limits on the length of loans, total loans outstanding, and total loans to individual borrowers and restrictions on loans to affiliates of the securities lending administrator. In addition, collateral in the form of letters of credit should be indemnified in the event of default by the borrower and letter of credit issuer.

Controls over the securities lending program could also be enhanced by monitoring compliance with significant contract provisions such as collateralization levels and investment types. Currently, reports from the System's securities lending administrator are not adequate to monitor compliance with these provisions. As noted in Section 2-B, audited financial statements and reports on internal controls also provide useful information regarding the administrator's financial condition and internal control structure.

Establishing securities lending objectives in the investment policies and reporting the results of the securities lending program will help ensure the System's expectations for the program are defined and measured.

Securities lending is a viable option for generating additional income from the System's investment portfolio. On any given day the Custodian Bank can have a significant percentage of the System's portfolio on loan to various borrowers. Records available for fiscal years 1993 and 1994 showed an average annualized balance on loan of \$148.2 million and \$176.8 million respectfully. During fiscal year 1996, the System's securities lending program generated approximately \$428,000, or 1 percent of investment income.

Recommendation:

We recommend that management and the Board of Regents consider making the following revisions to its securities lending program:

- Consider the benefits of additional contractual provisions: for example, limits on length of time and total loans outstanding and on total loans to individual borrowers; prohibition against, or increased monitoring of, loans to the administrator and affiliates; and indemnification for collateral issued in the form of letters of credit.
- Identify significant contractual provisions and develop procedures to test the administrator's compliance with those provisions.
- Establish securities lending objectives and periodically report results of securities lending activities to executive management and the Board.

Management's Response:

Management appreciates the State Auditor's recognition that its current securities lending contract protects the System from substantial losses.

The System currently utilizes one of the largest financial institutions in the world as its securities lending agent. The lending agent has over \$320 billion in assets and is the largest bank in the United States. All loans are collateralized at 102% of their market value plus accrued interest, and the System is indemnified against borrower default by the lending agent. Although the length of loans varies, all loans can be terminated on notice, should the need arise to sell a security out on loan.

The current list of authorized investments in the Investment Policy will be incorporated into the lending contract both as authorized collateral and as authorized investments for cash collateral. Letters of credit will not be permissible collateral unless the lending agent provides indemnification in accordance with that provided with other types of collateral. In addition, a provision prohibiting the lending of securities to administrators and affiliates will be included.

Management does not, presently, agree with placing contractual limits on loans outstanding or on total loans to individual borrowers. The agent monitors risk associated with its lending arrangements and provides the System indemnification against borrower default. The System will increase monitoring procedures in relation to the percentage of assets on loan, proper collateralization of loans, revenue received from the securities lending program, and any other areas deemed pertinent. The results of securities lending activities will be reported to executive management and the Board of Regents' Finance Committee on an annual basis.

Section 5:

Performance Appraisal and Professional Training Procedures for Investment Staff Can Be Improved

We noted certain strengths in the System's controls over human resource management, including the following:

- Investment personnel were given annual performance evaluations.
- Thorough descriptions exist for investment positions including necessary and preferred qualifications, responsibility, work performed, and percentage of total time spent on each primary duty.

We offer the following suggestions for improvement:

- Performance appraisals for investment personnel could be expanded to address how well employees help meet specific, measurable goals of the investment division relevant to the employees' duties. For example, one aspect of the investment analyst's evaluation might contain a measure of how well the Cash Portfolio of the Cash Concentration Pool performed against approved benchmarks. The System's Employee Performance Evaluation Form provides space to list additional evaluation criteria specific to a particular office or department and could be used for investment staff evaluations. Performance evaluations provide an important means of encouraging good performance, supporting future human resource decisions, and identifying employee training and development needs.
- The Treasury Services Department should establish formal continuing education or training guidelines for investment personnel and maintain centralized records on the training classes taken by investment staff. Minimum training standards should be defined and monitored to ensure budget resources are used effectively and the professional development needs of investment staff are met.

Recommendation:

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We recommend that evaluations of System staff members with significant responsibilities over managing or supervising investment activities include feedback on investment-specific evaluation criteria. Assessments of specific job duties, technical skills, compliance with investment policies, and achievement of portfolio performance objectives are examples of criteria which could be written into the current evaluation form.

We also recommend that the Treasury Services Department establish policies defining minimum continuing education standards for investment personnel and implement procedures to document and monitor compliance with the policy.

Management's Response:

Management appreciates the State Auditor's recognition of the strengths of the System's human resources management. The Treasury Services staff performs a wide array of duties in the area of Debt Management, Cash Management, Capital Planning and Budgeting, as well as Investment Management. The Positions Analysis Questionnaires cover the employee's effectiveness in carrying out particular duties. Attention will be given to include direct investment program criteria in the performance evaluation.

Management encourages continuing education for all employees. The staff attends seminars pertinent to the investment practices of the System. A detailed listing of continuing education for investment professionals, and expectations of continuing education will be maintained.

Section 6:

The System's Accounting Treatment of Certain Premiums and Discounts Should Be Reviewed

Premiums and discounts arising from external managers' purchases of fixed-income investments are not amortized in accordance with Generally Accepted Accounting Principles (GAAP). The System's accounting procedures should be modified to amortize these premiums and discounts unless management determines that this departure from GAAP will not materially impact the \$393.6 million reported book value for these investments.

GAAP requires that premiums and discounts be amortized over the life of the investment. Specifically, the effective interest rate method is required, unless the use of another amortization method or accounting policy is not materially different.

The System posts monthly summary information for external investments directly from its Custodian Bank's reports, and the Custodian Bank does not amortize premiums and discounts. Since the System's accounting staff was not aware of this departure from GAAP, no study or review has been performed to determine the impact on amounts reported in the System's financial statements. As of the end of May 1996, the externally managed fixed-income portfolio represented 48 percent of both the Cash Concentration Pool and Endowment Fund combined.

Recommendation:

The System should determine whether the current practice of not amortizing premiums and discounts resulting from external manager fixed-income transactions is a material departure from Generally Accepted Accounting Principles. The System's accounting procedures should be modified if amortization of these premiums and discounts will materially impact reported balances.

Management's Response:

The System's current practice of not amortizing premiums and discounts on fixed income investments held by external managers understates the cost value by 0.95% and 0.02% per year for the Cash Concentration Pool and the System Endowment Fund, respectively. Both amounts are deemed to be immaterial.

Management is currently processing a Request for Proposal for Master Trust/Custodial Services. The respondents' ability to assist the System with amortization will be a factor in the selection process.

General Land Office and Veterans Land Board

Overall Summary

Overall, investment practices at the General Land Office and Veterans Land Board appear adequate to ensure accountability for the Veterans Land Board's investments. Major strengths include:

- A detailed investment policy
- Comprehensive ethics standards
- The frequency of Veterans Land Board meetings
- The appropriateness of the organizational structure

In addition, key investment personnel appeared to have the necessary educational background and experience to fulfill their responsibilities. Opportunities for improvement were identified in the areas of investment oversight (Section 1) and policies and procedures (Section 2).

Two recommendations were communicated verbally during the review and were immediately corrected. These recommendations were the inclusion of portfolio duration calculations in monthly investment reports and the creation of a report on compliance with investment policies.

Section 1:

There Are Opportunities to Improve Oversight of Investment Operations

The Veterans Land Board (Board) meets frequently and employs a financial debt management advisor who also assists with investment-related issues. The outside financial advisor does not, however, perform in-depth analysis of investment performance or analyze investment reports. We identified the following opportunities for improving investment oversight:

- Increase formal monitoring of investment operations. According to Board meeting minutes, investment-related issues were discussed at only one of the ten Board meetings held during fiscal year 1995. Investment operations should be reviewed at least quarterly to ensure the Board is informed regarding economic conditions, portfolio changes, the results of investment operations, and compliance with investment policies.
- Improve the timeliness and quality of quarterly investment reports. Investment reports due at the end of each calendar quarter were not consistently distributed to the Board during fiscal year 1995. Three of the four reports covered periods other than calendar quarters. In addition, the August 31, 1995, report was delivered six months after the report date.

The quarterly investment reports could also be improved by including additional useful information:

- Compare investment performance against benchmarks. Investment reports do not demonstrate compliance with the performance objectives defined in the investment policy. This information is essential for decision makers to evaluate how well the Board's funds are being managed. The benchmarks should be representative of the Board's portfolio mix and strategy to ensure an accurate and comparative performance measurement.
- Provide an executive summary that includes an overall performance appraisal, analysis of economic and market indicators, and the investment officer's outlook. This information will enable decision makers to evaluate the long-term direction of investment operations and the appropriateness of the investment strategies. It also provides documentation of management's risk analysis, expectations, and the potential impact on the Board's investment portfolio.
 - *Report beginning and ending book and market values.* Currently, quarterly investment reports show current book and market values only. Stating both beginning and ending balances will enable decision makers to evaluate changes in book and market values that occurred during the period.
- Investment policies should be reviewed at least once a year. Although the Board's investment policies were revised in 1995 and additional revisions were recommended in April 1996, the Board should establish a formal policy requiring an annual review. Since the Board is exempted from the Public Funds Investment Act, it is not required to review investment policies at least annually. However, this practice is a good control to ensure that policies are up to date and appropriate for prevailing market conditions.
- Board members should periodically receive investment-related training. At the time of our review, Board members indicated that they had not received training on general investment topics or issues specifically related to the Board's investment operations. (Since that time, one of the three Board members has attended training on the Public Funds Investment Act.) As fiduciaries of over \$691.5 million in investment assets, the Board should have an understanding of investment strategies, policy development, performance analysis, investment types and risk, and other factors affecting the Board's investment portfolio. Given the complex nature of the current investment environment, it is important that the training needs of individual Board members be evaluated periodically.

Recommendation:

We recommend that the Board review and discuss investment operations at least on a quarterly basis. Quarterly investment reports should be distributed to the Board consistently and in a timely manner. Investment reports should also:

- Compare investment performance against benchmarks.
- Provide an executive summary that includes an overall performance appraisal, analysis of economic and market indicators, and the investment officer's outlook.
- Report beginning and ending book and market values.

Board policies should require an annual review of the investment policies and should include guidelines for Board member training.

Management's Response:

Discussion of investment operations will be an agenda item for each Board meeting following the preparation and circulation of the Quarterly Investment Report by the Funds Management staff. The report will be prepared following the end of each calendar quarter and will be distributed to the Board in a consistent and timely manner. The report will contain an executive summary, a summary of current portfolio holdings, and an analysis of compliance with Board investment policies.

The executive summary will include sections on: (1) economic and market conditions, (2) investment outlook and strategy, and (3) investment performance. The investment performance section will compare the duration and return on the Board's investment portfolio with that of a benchmark index. Funds Management staff is presently working with portfolio analytics professionals to develop a meaningful comparative benchmark, given the style of investment necessitated by the program's liquidity and cash flow requirements.

The above-described format was implemented in the investment report for the quarter ended September 30, 1996.

Funds Management staff will review GLO/VLB investment policies at least annually and will present recommended revisions to the Board.

Appropriate investment-related training will be recommended to Board members.

Section 2:

There Are Opportunities to Improve the Completeness of Certain Policies and Procedures

Overall, the Board's investment policies are appropriate and reasonable for its investment types and investment goals and objectives. The policies and procedures generally establish investment internal controls sufficient to safeguard the Board's assets, ensure proper conduct by participants in the investment process, and eliminate conflicts of interest. We identified, however, the following ways to improve the completeness of certain policies and procedures:

- Members of the Veterans Land Board should be required to sign an ethics statement to formally acknowledge their understanding of the standards of conduct associated with their fiduciary responsibilities. In addition, the financial disclosure statements prepared by senior officials and members of the Board should be reviewed to test compliance with conflict of interest laws and regulations. The periodic, independent review of financial disclosure statements by the Internal Audit Department is an added control to ensure all potential real or apparent conflicts of interest are identified, disclosed, and disposed of.
- Minimum annual training guidelines and expectations should be provided to the Board's key investment staff. This will help ensure that training needs are given appropriate priority in the budgeting process. Given the complexity and volatile nature of the current investment environment, minimum training standards should be defined for investment staff and sufficient resources set aside to satisfy those requirements.
- Management should establish a formal, written policy regarding the reimbursement of professional license and exam fees on behalf of its employees. The lack of a formal policy may discourage certain employees from seeking professional designations such as the Chartered Financial Analyst designation.
- Management should develop a written policy regarding the use of soft dollar commissions. The term "soft dollars" typically refers to the purchase of goods and services paid for by a broker with a portion of the brokerage commission received for executing securities transactions. The Veterans Land Board earned approximately \$16,000 in soft dollars over the past three years.

Recommendation:

We recommend that Board members sign an ethics statement to formally acknowledge their understanding of the standards of conduct associated with their position.

Financial disclosure statements prepared by senior officials and Board members should also be independently reviewed by the Internal Audit Department and compared against transactions to test compliance with conflict of interest laws and regulations.

Training guidelines for investment personnel should be developed and minimum training standards established. Sufficient resources should be allocated to satisfy training requirements.

Written policies should be developed regarding the reimbursement of professional license and exam fees and for soft dollar commissions.

Management's Response:

Board members will be required to sign an ethics statement, formally acknowledging their understanding of the standards of conduct associated with their fiduciary responsibilities.

Training guidelines for key investment staff will be developed, and funds will be budgeted to ensure that the training is received.

A formal, written policy regarding the reimbursement of professional license and exam fees for investment personnel will be established. Key investment staff will be encouraged to pursue the Chartered Financial Analyst designation. The present senior investment officer is a Level III CFA candidate. His exam fees and study materials have been paid for by the GLO/VLB.

A formal, written policy regarding the use of soft dollar commissions will be established and implemented.

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Overall Summary

Overall, investment practices at the Texas Department of Housing and Community Affairs (Department) are adequate to ensure accountability for the Department's investments. Strengths of the Department include:

- Frequent meetings of the oversight board
- Policies and procedures which establish internal controls sufficient to safeguard investment assets
- Investment reports which appear to meet the informational needs of the users
- Investment personnel who appear to have the educational background and expertise needed to fulfill their responsibilities

Opportunities for improvement were identified in the following areas:

- The Department's quarterly investment report should be presented to the Board of Directors (Board) in a timely manner. (See Section 1.)
- Minor instances of noncompliance with the Public Funds Investment Act (Act) were identified. These instances of noncompliance are not deemed significant due to the nature of the Department's investment operations, which do not involve the direct buying and selling of investment securities. The Act (Chapter 2256, Government Code) was passed by the 74th Legislature and became effective September 1, 1995. (See Section 2.)
- The Department's Code of Ethics policy could be enhanced by explicitly identifying whom the policy applies to, listing specific laws and regulations, and providing examples of unacceptable behavior. (See Section 3.)

Section 1:

The Department's Quarterly Investment Reports Should Be Presented to the Board in a Timely Manner

Investment reports for the first three quarters of fiscal year 1996 were presented to the Board from two to five months after the reporting period. In addition, two of the quarterly reports were not presented to the Finance Committee of the Board in accordance with the Department's investment policy. The Public Funds Investment Act requires a quarterly investment report be presented to the governing board and chief executive officer "within a reasonable time after the end of the period." We

believe 30 to 45 days after the end of the quarter to be a reasonable time period for presenting investment reports.

Recommendation:

Management should ensure that the quarterly investment report is presented to the Finance Committee and full Board within 30 to 45 days of the end of the reporting period.

Management's Response:

We agree that the quarterly investment reports should be presented to the Finance Committee and full Board in a more timely manner. The timing of our presentations is influenced by two factors. First, approximately 30 days are required to receive all investment related information from bond trustees, reconcile investment activity and prepare the quarterly report. Second, scheduling of the Finance Committee and Board meetings ultimately determines when the quarterly reports can be presented. It is the goal of management to present the quarterly reports at the next regularly scheduled meetings of the Finance Committee and Board occurring more than 30 days from quarter end. This goal should provide adequate time for preparing a complete and accurate investment report with the flexibility to accommodate the scheduling requirements of the Finance Committee and Board meetings.

Section 2:

Minor Instances of Noncompliance With the Public Funds Investment Act Were Identified

The Department is in compliance with the majority of the requirements listed in the Public Funds Investment Act. We noted, however, the following minor instances of noncompliance:

- The Department reported that three of the nine Board members and two of the three investment officers had not received the training required by Section 2256.007 of the Act. The one investment officer who received the training did not receive it within six months of taking office as required by the Act.
- The Department's investment policy does not address the quality and capability of investment staff as required by Section 2256.005(b)(3) of the Act. These qualities and capabilities could be stated in terms of the required job experience, educational background, and/or professional certification needed by the investment staff.

• Not all of the Department's designated investment officers sign the quarterly investment report as required by Section 2256.023 of the Act. (Although not required by the Act, the reports should also be dated.)

These instances of noncompliance with the Act are not deemed significant, especially given the nature of the Department's investment operations, which do not involve the direct buying and selling of investment securities.

The Department uses proceeds from bond issuances to fund various housing assistance programs. While other entities directly buy and sell investment securities to meet cash flow needs, the Department's investment decisions are made at the time a new bond issue is structured based on input from Department personnel, the financial advisor, and bond counsel. Once an underwriter purchases the bond, the proceeds are transferred to a trustee who invests the funds in accordance with letters of instruction from the Department's investment officers and the bond indenture.

Recommendation:

Board members and management who have not yet complied with the Act should take the required investment training. This training should be documented and include areas such as investment controls, security risks, strategy risks, market risks, and compliance with the Act. The Board should revise the current investment policy to include a reference to the investment staff's quality and capabilities. All employees with the title "investment officer" should sign and date the quarterly investment report.

Management's Response:

We concur with the recommendations stated above. We will follow up with those members of the Board and management who have not yet completed the required investment training. Our goal is for all individuals needing investment training to complete the required training by January 31, 1997. Our training program will encompass the areas mentioned above. Additionally, we will revise the current investment policy to include a reference to the investment staff's qualities and capabilities. Finally, beginning with our first quarter investment report for fiscal year 1997, all employees with the title "investment officer" will sign and date the quarterly investment report.

Section 3:

There Are Opportunities to Improve the Department's Code of Ethics Policy

The Department has procedures in place to communicate ethics standards to Board members and employees. The Department's Code of Ethics policy (Code), however, could be improved by adding the following clarifications:

- The Code should specifically state that it applies to both employees and Board members. Although employees are required to acknowledge receipt of the *Personnel Policies and Procedures Document*, which includes a standard of conduct policy, the document does not contain the Code. Additionally, newly appointed Board members receive training on ethical conduct and laws but they are not required to formally acknowledge their receipt and understanding of the Code.
- The Code should list applicable laws and regulations that govern employee and Board member standards of conduct. For example, Section 2306.028 of the Government Code specifically addresses conflicts of interest for Board members.
- The Code should provide examples of unallowable conduct and clearly describe the types of benefits and gifts that are prohibited. The Standards of Conduct section of the *Personnel Policies and Procedures Document* lists specific examples of unallowable behavior for employees and could be incorporated into the Code to give guidance.
- The Code should indicate the procedures to be followed if actual or apparent conflicts of interest are identified. For example, some ethics policies require the disclosure of conflicts of interest in writing to the entity's general counsel.

Recommendation:

The ethics policy should be enhanced to include specific laws that apply to employees and Board members and give examples of conflicts of interest. The ethics policy should be signed by Board members and employees upon appointment or employment to show that they have received and understand the policy.

Management's Response:

We agree to revise our current Code of Ethics to include specific laws considered relevant to the Department's operations and to provide additional examples of conflicts of interest. We will expand our Code of Ethics regarding actual or apparent conflicts of interest. We will also expand the scope of the Code to include both employees and Board members. Additionally, we will obtain signed statements from employees and Board members stating that they have received and understand the Code.

Overall Summary

Overall, investment practices are adequate to ensure accountability for the Texas Water Development Board's (Board) investments and compliance with the Board's investment policies. We identified three minor instances of noncompliance with the Public Funds Investment Act (Section 2256 of the Government Code) which was passed by the 74th Legislature and became effective September 1, 1995.

Strengths of the Board's investment practices include the following:

- The frequency of oversight meetings
- An organizational structure that appears to properly allocate investment personnel resources, delineate clear lines of investment authority, and promote efficient coordination and communication of investment information
- Policies and procedures which establish internal controls sufficient to safeguard investment assets
- The timeliness of investment staff performance evaluations

Section 1:

Minor Instances of Noncompliance With the Public Funds Investment Act Were Identified

The Texas Water Development Board has complied with a majority of the provisions of the Public Funds Investment Act (Act). We noted, however, the following minor instances of noncompliance:

- An investment policy that met all of the requirements of the Act was not approved until May 1996, over eight months after the effective date of the Act.
- The Board's investment policy does not clearly define the quality and capability of investment staff as required by Section 2256.005(b)(3) of the Act.
- Quarterly investment reports did not state the beginning book and market values of the Board's investments. (This information has now been added to the Board's investment reports.)

These instances of noncompliance are not considered significant and did not have a material impact on the Board's investment operations.

Recommendation:

The Board should revise its investment policy to clearly define the quality and capability of investment staff as required by Section 2256.005(b)(3) of the Act.

Management's Response:

<u>Investment policy approved eight months after the effective date</u>. While the investment policy and the Board's investment rules (Chapter 365) were not formally adopted until May 16, 1996, staff does not consider this to be excessive primarily because staff was purchasing investments under an existing investment policy which substantially met the requirements of the Public Funds Investment Act. In addition, once the revised policy was adopted, the Board was awarded a national award by the Municipal Treasurer's Association of the United States and Canada for certification of the Board's investment policy.

<u>The Board's investment policy does not clearly define the quality and capability of</u> <u>investment staff</u>. Section 2256.005 requires that the investment policy address the quality and capability of investment management. Section 2256.005 subsection (h) and (I), Section 2256.006, and Section 2256.007 of the Act address what the qualities and capabilities are required of the investment staff. In summary, the Act states that the investment staff must manage the investments by guidance of the "prudent person" rule, must receive training, and must comply with the rules of disclosure should the investment staff be related to an individual seeking to sell an investment to the investment officer. These sections **are** mentioned in the Board's investment policy as well as in the Board's rules. Please refer to Section III and Section VI of the Board's investment policy and Chapter 365.6, 365.9, and 365.10 in the Board's investment rules. These sections satisfy the quality and capability of the investment management as required by Section 2256.005.

The consensus within the investment community is that some portions of the PFIA are vague. Section 2256.005(b)(3) is an excellent example of how the Act can be interpreted in various ways. Consequently, it is imperative that the Act be followed with as much guidance from what is actually written in the Act itself, as opposed to each state or local government attempting to add their own meaning and interpretation to the Act.

If the State Auditor's Office does not agree that Sections 2256.006 and 2256.007 do address what the qualities and capabilities of the investment management ought to be, then staff recommends that the State Auditor's Office make a recommendation or at a minimum set parameters on what those capabilities should be and incorporate the recommendations into the salary classification system. This would help bring consistency within all investment staff for the various state agencies. Without the SAO's guidance on this issue, it is possible that the capabilities and qualities for one state agency may not be adequate for another state agency, thus complicating the outcomes of the audits and combined reports such as the Investment Practices Review presented to the Board by the SAO.

<u>Stating the beginning market and book values</u>. The Board's report for the quarter ending July 31, 1996, shows the requested change.

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Appendix 1: Objective, Scope, and Methodology

Objective

The primary objective of this project was to review the adequacy of management controls over investment practices at five state entities responsible for state investments.

Scope

Five state entities responsible for investment balances were covered by this review:

- Texas Tech University and Texas Tech University Health Sciences Center
- Texas A&M University System
- General Land Office and Veterans Land Board
- Texas Department of Housing and Community Affairs
- Texas Water Development Board

These entities accounted for investments totaling over \$3.4 billion as of August 31, 1996.

We reviewed management controls in the following areas related to the entities' investment operations:

- Effectiveness of oversight provided by governing boards
- Appropriateness and reasonableness of investment policies and procedures
- Appropriateness and effectiveness of the organizational structure of the investment division
- Effectiveness of management of human resources
- Effectiveness of procedures for purchased investment-related services, including securities lending programs
- Usefulness of information provided to internal and external users

For those entities subject to the Public Funds Investment Act, we also determined compliance with applicable provisions.

Although some information and data reviewed was verified by us, we did not attempt to verify all financial information including investment balances and investment income.

Methodology

The methodology used included collecting information, performing audit tests and procedures, and evaluating the information against pre-established criteria.

Information collected to accomplish our objective included the following:

- Responses from board members to our investment questionnaire
- Interviews with management and staff of the entities' investment and accounting divisions
- Documents such as the following:
 - Board and committee meeting agendas and minutes
 - Approved investment policies
 - Investment and operating policies and procedures manuals
 - Applicable constitutional and statutory provisions
 - Contracts with consultants, advisors, external portfolio managers, investment custodians, and securities lending administrators
 - Investment division organizational charts
 - Personnel files
 - Investment transaction documentation
 - Investment compliance reports
 - Various investment reports generated for internal and/or external users

Tests and procedures conducted included the following:

- Inquiries of entity personnel
- Completion of internal control structure questionnaires
- Review of investment policies for appropriateness and comprehensiveness
- Observation of documents or reports to determine that appropriate procedures have been performed
- Tests of investment portfolio reports to ensure compliance with laws or investment policies
- Tests of samples of investment transactions for compliance with laws, investment policies, and control procedures
- Review of contractor selection and evaluation procedures and review of selected contracts for appropriateness of terminology
- Comparison of selected contractor billings with contractual rates
- Review of selected investment personnel files for evidence of adequate job descriptions, periodic performance evaluations, and ongoing job-related training
- Review of investment reports for timeliness, adequacy of content, and clarity

<u>Criteria used</u> to evaluate information received included the following:

- Constitutional and statutory restrictions and requirements
- Public Funds Investment Act (as general guidance for those entities exempt from most of the Act's provisions)
- Entity investment policy and operating policies and procedures
- Contractual provisions
- Standard audit criteria

Other Information

Fieldwork at the various entities was conducted from March 1996 to November 1996. The audit was conducted in accordance with generally accepted government auditing standards.

The work was performed by the following members of the State Auditor's staff:

- Randall Reid, CPA (Project Manager)
- Godfrey Baldwin
- Stanley Brumfield, CPA
- Jerry Davis, CMA
- Sean Gaven
- Nancy Hennings, CPA, CISA
- Ann Huebner
- Deborah Mitchell, CPA
- Dianne Oldroyd, CPA
- James Stolp
- William Wood, CPA
- Worth Ferguson, CPA (Quality Control Reviewer)
- Carol Smith, CPA (Audit Manager)
- Craig Kinton, CPA (Audit Director)

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2.1 - TEXAS TECH UNIVERSITY AND TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER

Appendix 2.1: Texas Tech University and Texas Tech University Health Sciences Center

Texas Tech University, founded in 1923, and Texas Tech University Health Sciences Center share a 1,839-acre main campus in Lubbock. This ground-sharing of the two institutions is the only such common-campus arrangement among universities in the State.

In addition to the main Lubbock campus, Texas Tech University operates an East Lubbock research campus, a 400-acre South Texas center at Junction, a 15,822-acre agricultural research site in Amarillo, a 980-acre Lubbock County Field Laboratory, and a 90-acre natural sciences and archaeological field laboratory in Val Verde County.

Lubbock is the administrative center for the Texas Tech University Health Sciences Center with other regional campuses located at Amarillo, El Paso, and Odessa. The University has as its major objectives the provision of quality education and the development of academic, research, patient care, and community service programs to meet the health care needs of the 108 counties of West Texas, which comprise 50 percent of the land mass and 14.3 percent of the State's total population.⁵

Oversight

Texas Tech University and Texas Tech University Health Sciences Center are administered by a nine-member Board of Regents through a Chancellor, also serving both institutions. The Finance and Administration Committee of the Board oversees investment operations for both institutions, which are managed internally by the Vice Chancellor for Administration and Finance and the Assistant Vice Chancellor for Investments. The Endowment Investment Committee of the Board was appointed to oversee the Consolidated Endowment Fund.

Investment Policies

The Board of Regents (Board) of the Texas Tech University and Texas Tech University Health Sciences Center (University) has instituted separate investment policies for institutional and endowment funds. Both investment policies provide detailed guidance on investment philosophy and objectives, performance goals and objectives, reporting requirements, and other issues pertinent to the management of the University's investment operations.

Section 51.0031 of the Texas Education Code provides that the University invest all funds under "prudent person" standards.

⁵Texas Tech University and Texas Tech University Health Sciences Center Strategic Plan, 1992.

Investment Management

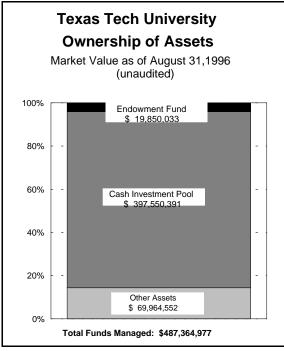
The University's investments are managed through a combination of internal and external investment professionals. One investment officer with a support staff of five manages the University's Cash Investment Pool. The majority of the University's endowment funds not included in the Cash Investment Pool are managed by two external investment firms.

Figure 7

Total Number of Investment Professionals	1
Fiscal Year 1995 Budgeted Salary Range	\$69,360
Average Salary	\$69,360
Total Investments Managed Internally	\$461,582,212*
Total Investments Managed Externally	\$25,782,765*

(*Market Value as of August 31, 1996)

Figure 8



Funding Sources

Cash Investment Pool - This fund is a pool of short- to long-term operating funds of the Texas Tech University and Texas Tech University Health Sciences Center. Major sources of funds within this pool are tuition, fees, bond proceeds, hospital revenues, revenues from auxiliary operations, and endowments.

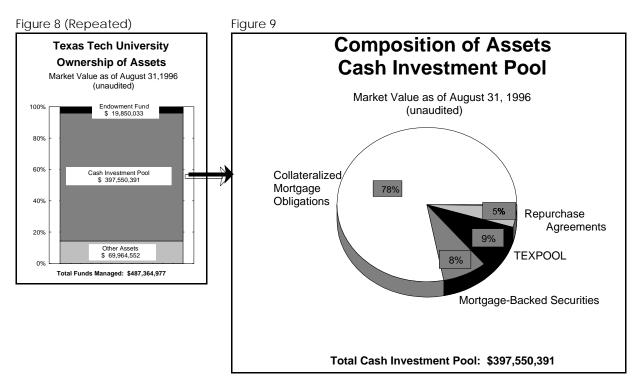
Consolidated Endowment Fund - This fund serves as a mutual fund for the collective investment of private endowments supporting various programs and purposes of the University. Cash distributions are paid quarterly, on a per unit basis, and must be expended as intended by the donor. The distribution of spendable income to each unit of the fund is not to be less than 4 percent or greater than 6 percent of the average market value of a unit of the fund for the preceding 12 quarters. The target annual distribution rate is 4.5 percent of the average unit market value.

Other Assets - These funds consist of specially restricted endowment funds, foundations, mineral rights, real estate, and unspent bond proceeds.

2.1 - TEXAS TECH UNIVERSITY AND TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER

Asset Allocation

The University's investments are segregated between the Cash Investment Pool, Consolidated Endowment Fund, Cash in State Treasury, unspent bond proceeds, and other restricted funds. The Cash Investment Pool's assets are allocated between fixedincome securities and cash and cash equivalents. The Consolidated Endowment Pool consists of common stock, fixed income, and cash and cash equivalent investments.



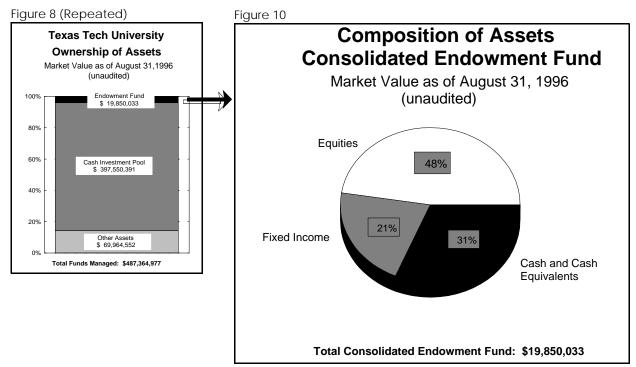
Source: Office of Cash Investments, Texas Tech University

Asset Class	August 31, 1996 Book Value	August 31, 1996 Market Value
Collateralized Mortgage Obligations	\$315,981,306	\$309,759,663
Mortgage-Backed Securities	\$30,309,110	\$31,915,530
TEXPOOL	\$37,500,000	\$37,500,000
Repurchase Agreements	\$17,399,272	\$17,399,272
Cash in Local Depositories	\$975,926	\$975,926
Total Cash Investment Pool	\$402,165,614	\$397,550,391

Portfolio Weighted Average Maturity 1996 Yield 1996 Total Return 4.5 years7.29 percent5.84 percent⁶

⁶The Cash Investment Pool uses a "hold-to-maturity" concept. Intent is to hold all investments to maturity. There were no realized gains or losses during the year. Unrealized gains and losses were not considered in the earnings performance of the Cash Investment Pool. 1996 total return calculation is for information purposes only.

2.1 - TEXAS TECH UNIVERSITY AND TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER

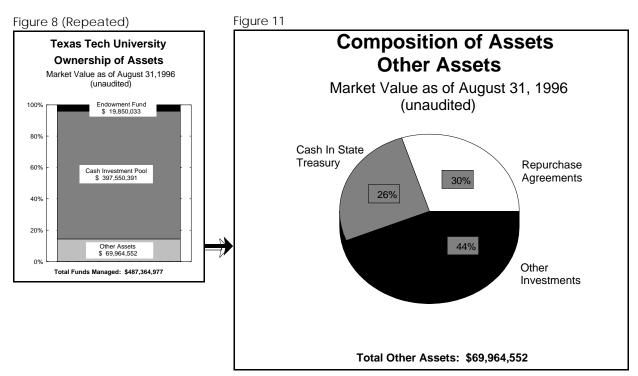


Source: Cash Invesment Office, Texas Tech University

Asset Class	August 31, 1996 Book Value	August 31, 1996 Market Value
Equities	\$9,591,178	\$9,453,175
Fixed Income	\$4,260,267	\$4,204,824
Cash and Cash Equivalents	\$6,192,034	\$6,192,034
Total Consolidated Endowment Pool	\$20,043,479	\$19,850,033

Total Return 4.43 percent⁷

⁷Funding of the Consolidated Endowment Fund occurred during the fourth quarter of 1996. Investment managers have not completed the redeployment of funds into equity and fixed income investments at August 31, 1996.



Source: Office of Cash Investment, Texas Tech University

Asset Class	August 31, 1996 Book Value	August 31, 1996 Market Value
Cash in State Treasury	\$20,915,723	\$20,915,723
Unspent Bond Proceeds Repurchase Agreements	\$18,353,785	\$18,353,785
Other Investments Equities Fixed Income Other Cash and Cash Equivalents Other Assets	\$5,829,610 \$4,247,592 \$482,711 \$17,732,170	\$8,256,822 \$4,223,341 \$482,711 \$17,732,170
Total Other Investments	\$28,292,083	\$30,695,044
Total Other Assets	\$67,561,591	\$69,964,552

2.2 - TEXAS A&M UNIVERSITY SYSTEM

Appendix 2.2: The Texas A&M University System

The Texas Constitution, Article VII, Section 13, established the Texas A&M University System (System). The System is comprised of eight research and service agencies, seven universities, and the Administrative and General Offices. The Administrative and General Offices conduct investment operations for the entire System.

Related to investment operations, the objective is to invest the System's available funds in such a manner as to earn as high a level of return as can reasonably be achieved within the framework of the policy, while consistent with the System's primary objective of the safety and preservation of capital. The Treasury Services Department is assigned staff responsibility for the management oversight of System-wide cash management, in coordination with appropriate officials of the components of the System.

Funds are composed of the Cash Concentration Pool and the Endowment Fund. The Cash Concentration Pool is a centralized cash management program that invests the operating funds of the System. The Endowment Fund provides for the collective investment of various endowments and trust funds held by the System or by the Board of Regents of the System in a fiduciary capacity. The Endowment Fund provides funding for scholarships, fellowships, professorships, and academic chairs as well as other uses as specified by donors.

Oversight

The System is governed by a nine-member Board of Regents (Board). The Board has fiduciary responsibilities over the investment operations of the System. The nine members are appointed by the Governor with the advice and consent of the Senate. The System's administrative authority is cited in Chapter 85 and its investment authority is cited in Chapter 51 of the Education Code, Title 3.

The Chancellor of the System is granted the authority, by the Board, to manage all investments. Investment management is further delegated to other employees by the Chancellor with the approval of the Board. The Treasury Services Department manages the investments and reports to the Vice Chancellor of Business Services. The Vice Chancellor of Business Services reports to the Deputy Chancellor of Finance and Operations, who in turn reports to the Chancellor and the Board.

Investment Policies

The Board has established detailed investment policies which are documented in Section 22.02 of the System's *Policy Manual*. The investment policies set forth separate guidelines for investing the assets of the Cash Concentration Pool and

Endowment Fund. Topics covered in the policies include purpose and objectives, authorized investment types, delegation of authority, use of outside investment managers, asset allocation, and conflicts of interest for the Board.

The policies direct investment staff to apply the "prudent person" standard in the management of the overall portfolio.

Investment Management

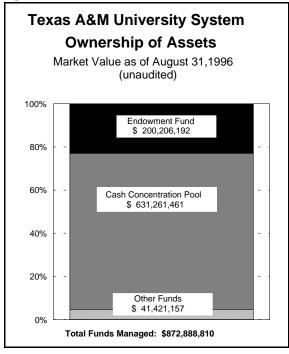
The System's investments are managed through a combination of internal and external investment professionals. Two internal investment staff members manage the Cash Concentration Pool's Short-Term Portfolio and Other Restricted Funds. Nine external managers invest all other funds. The internal staff is responsible for selecting, monitoring, and evaluating the external managers.

Figure 12

Total Number of Investment Professionals	2
Fiscal Year 1996 Budgeted Salary Range	\$35,974 - \$78,034
Average Salary	\$57,004
Total Funds Managed Internally	\$197 million*
Total Funds Managed Externally	\$676 million*

(*Market Value as of August 31, 1996)

Figure 13



Funding Sources

Cash Concentration Pool - This fund is a pool of short- to long-term operating funds of the System's component institutions. Operating funds are consolidated in order to capture the economies of scale offered by a pooled investment fund and to consolidate portfolio management. Major sources of funds within the Cash Concentration Pool are bond proceeds, tuition, fees, and auxiliary revenues.

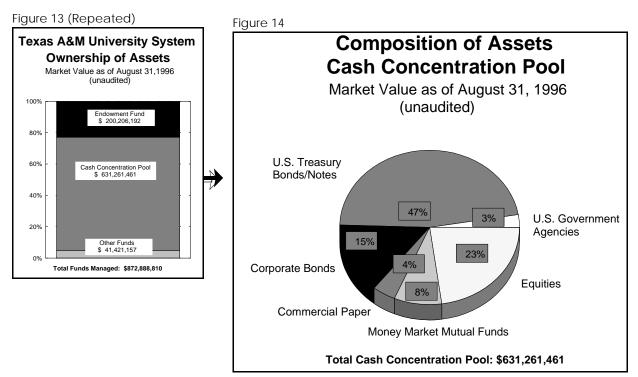
Endowment Fund - This fund serves as a mutual fund for the collective investment of private endowments and other funds supporting various programs and purposes of the System. Cash distributions are paid quarterly, on a per unit basis, to each component institution and must be expended as intended by the donor. The income distribution formula used is no more than 5 percent of the last 16-quarter rolling average market value of the portfolio, including fees.

2.2 - TEXAS A&M UNIVERSITY SYSTEM

Other Funds - These funds consist of specially restricted endowment funds, foundations, mineral rights, and real estate. The majority dollar value of these funds is represented by the Special Mineral Fund. Chapter 85.70 under Title 3 of the Education Code required the creation of the Special Mineral Fund. Certain royalties, lease fees, rental for delay in drilling and mining, and other payments are required to be deposited in the State Treasury. These funds are invested to produce income which may be expended under the direction of the Board for the general use of any component of the System.

Asset Allocation

The System's investments are segregated between the Cash Concentration Pool, the Endowment Funds, and other restricted funds. The Cash Concentration Pool is further divided into the Short-Term Portfolio, Liquidity Portfolio, and Long-Term Portfolio.

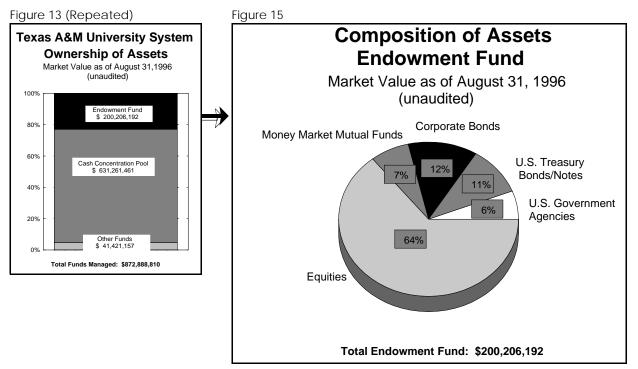


Source: Treasury Services Department, Texas A&M University System

Asset Class	August 31, 1996 Book Value	August 31, 1996 Market Value
U.S. Government Agencies	\$16,448,124	\$16,192,316
U.S. Treasury Bonds/Notes	\$298,697,294	\$296,577,756
Corporate Bonds	\$95,563,415	\$94,265,589
Commercial Paper	\$26,903,950	\$26,903,950
Money Market Mutual Funds	\$52,789,024	\$52,789,024
Equities	\$130,407,910	\$144,532,826
Total Cash Concentration Pool	\$620,809,717	\$631,261,461

Weighted Average Duration:2.88 yearsTotal Return:6.74 percent

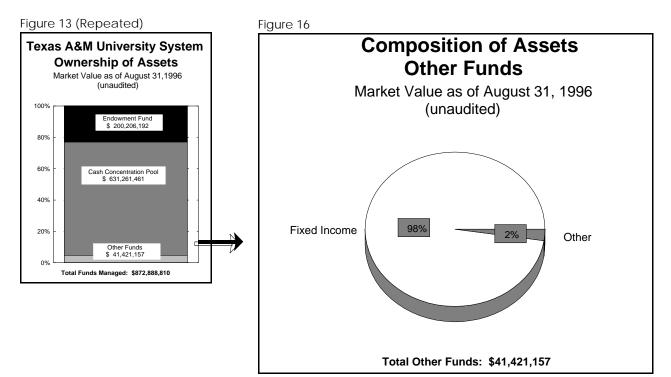
2.2 - TEXAS A&M UNIVERSITY SYSTEM



Source: Treasury Services Department, Texas A&M University System

Asset Class	August 31, 1996 Book Value	August 31, 1996 Market Value
U.S. Government Agencies	\$12,073,383	\$11,702,308
U.S. Treasury Bonds/Notes	\$21,099,363	\$20,843,138
Corporate Bonds	\$25,5 9 5,584	\$24,640,726
Money Market Mutual Funds	\$14,222,949	\$14,222,949
Equities	\$110,759,352	\$128,797,071
Total Endowment Fund	\$183,750,631	\$200,206,192

Weighted Average Duration: Total Return: 5.4 years 11.48 percent



Source: Treasury Services Department, Texas A&M University System

Asset Class	August 31, 1996 Book Value	August 31, 1996 Market Value
Fixed Income	\$38,820,044	\$40,465,634
Other Equities Cash and Cash Equivalents Other (Real Estate) Total Other	\$206,539 \$45,629 \$572,202 \$824,370	\$337,692 \$45,629 \$572,202 \$955,523
Total Other Funds	\$39,644,414	\$41,421,157

2.3 - GENERAL LAND OFFICE AND VETERANS LAND BOARD

Appendix 2.3: General Land Office and Veterans Land Board

The General Land Office is a constitutionally created entity responsible for managing most state-owned lands and minerals. The Veterans Land Board (Board) was created in 1946 by the Texas Constitution, Article III, Section 49-B to provide low-interest, long-term loans to veterans for the purchase of land in the State of Texas. In 1983, the Constitution was amended to include assistance to veterans buying or improving homes in Texas.

Oversight

The Board is responsible for the operation of the Veterans Housing Assistance and Veterans Land Programs. The Board is composed of the Commissioner of the General Land Office and two citizens of the State who are appointed by the Governor. One appointed member is required to be well versed in veterans affairs, and the other appointed member is required to be well versed in financial matters (Article III, Section 49-B of the Texas Constitution). The Texas Natural Resource Code, Chapters 31 through 33, 40, and 51 through 53 establishes the administrative provisions, powers, and duties of the General Land Office and the Commissioner.

The Board has contracted with a Financial Advisor to assist with the management of the debt-issuance function. The Financial Advisor also provides occasional investment advice.

Investment Policies

The Board has established separate investment policies for the Veterans Land Board and the Coastal Protection Fund. The policies set forth the Board's guidelines for investing. Topics covered in the policies include purpose and objectives, legal limitations, authorized investments, delegation of authority, investment responsibility and conflict of interest, portfolio guidelines and requirements, and investment guidelines and requirements.

The policies direct investment staff to apply the "prudent person" standard in the management of the overall portfolio.

Investment Management

The General Land Office and Veterans Land Board employ two internal investment professionals to manage the Board's investments.

Figure 17

Total Number of Investment Professionals	2
Fiscal Year 1996 Budgeted Salary Range	\$51,864 - \$63,600
Average Salary	\$57,732
Total Investments Managed Internally	\$691.5 million*
Total Investments Managed Externally	\$0

(*Market Value as of August 31, 1996)

Funding Sources

The General Land Office is the repository of all original land grants, patents, and other documents that form the basis of land title in the State of Texas. Within the General Land Office, the Veterans Land Board uses bond funding to help Texas veterans purchase land and homes or make home improvements. The Board offers three programs: the Texas Veterans Land Program, the Texas Veterans Home Improvement Program, and the Texas Veterans Housing Assistance Program. All of the more than 1.8 million veterans in Texas are eligible to use all three programs. (*Guide to Texas State Agencies*, 8th edition, published by the LBJ School of Public Affairs, The University of Texas at Austin.)

Veterans Land Program

Under this program, which was created in 1949, the Board purchases land for resale to veterans. Bonds outstanding for this program totaled \$695.6 million at the end of fiscal year 1996. The bond debt is repaid using the receipts from loan repayments and investment income.

Veterans Housing Assistance Program

The Texas Veterans Home Improvement Program, which began in 1986, enables eligible Texas veterans to repair and improve their homes. Started in 1983, the Texas Veterans Housing Assistance Program assists Texas veterans in purchasing new or existing homes by providing low-interest loans that can be used in conjunction with mortgage loans from private lending institutions or with FHA or VA loans. (*Guide to Texas State Agencies*, 8th edition, published by the LBJ School of Public Affairs, The University of Texas at Austin.)

Because all Texas Veterans Housing Assistance Program loans are funded by the sale of bonds, and no discount points are charged on loans, they are generally below the existing market rate for home mortgages. The program is supported by bonds that the veterans repay with their monthly payments. Bonds outstanding for this program totaled \$756.3 million at the end of fiscal year 1996.

2.3 - GENERAL LAND OFFICE AND VETERANS LAND BOARD

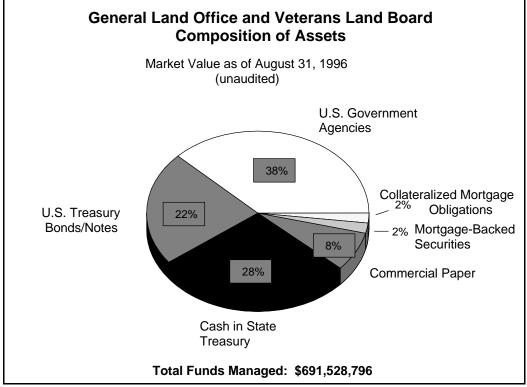
Coastal Protection Fund

The Coastal Protection Fund primarily funds oil spill response and cleanup and is used to finance the General Land Office's Oil Spill Prevention and Response Division. Revenue sources include fees collected on oil delivered in state waters and investment income. (*Guide to Texas State Agencies*, 8th edition, published by the LBJ School of Public Affairs, The University of Texas at Austin.)

Asset Allocation

The Board's bonds outstanding are separated into three programs: Housing Fund I, Housing Fund II, and Land. The investments within each individual bond fund within each program are micro-managed, with liquidity, cash flow, and federal tax law considerations being the main priorities. Total return is typically a secondary consideration. All of the Board's investments are managed collectively as one portfolio.





Source: Funds Management Division, General Land Office and Veterans Land Board

Asset Class	August 31, 1996 Book Value	August 31, 1996 Market Value
U.S. Government Agencies	\$264,052,438	\$261,298,196
Cash in State Treasury	\$194,307,924	\$194,307,924
U.S. Treasury Bonds/Notes	\$162,371,118	\$155,019,479
Commercial Paper ⁸	\$54,558,953	\$54,167,045
Mortgage-Backed Securities	\$13,829,646	\$13,756,776
Collateralized Mortgage Obligations	\$13,437,657	\$12,979,376
Total	\$702,557,736	\$691,528,796

Portfolio Weighted Average Duration:1.57 years1996 Yield-to-Maturity:5.93 percent

⁸Includes Aid to Israel Bonds

Appendix 2.4: Texas Department of Housing and Community Affairs

The Texas Housing Agency and the Texas Department of Community Affairs were merged to form the Texas Department of Housing and Community Affairs (Department) pursuant to Chapter 762, Acts of the 72nd Legislature of the State of Texas, Regular Session, 1991, as designated in Chapter 2306, Government Code. The Department was created

to assist local governments in helping residents overcome financial, social, and environmental problems; to address low to moderate income housing needs; to contribute to the preservation and redevelopment of neighborhoods and communities; to assist the Governor and the Legislature in coordinating federal and state programs affecting local governments; and to continually inform the State and the public about the needs of local government.⁹

Oversight

The Board of Directors (Board) is responsible for the operation of the various Community Development, Community Affairs, Housing Finance, Housing and Manufactured Housing Programs. House Bill 785, which became effective September 1, 1995, transferred the responsibilities for the regulation of Manufactured Housing from the Texas Department of Licensing and Regulation to the Department of Housing and Community Affairs.

The Board consists of nine individuals appointed by the Governor with the advice and consent of the Senate. The Board is composed of members representing the following areas of experience: lending institutions, local government, housing construction, nonprofit housing, realtors or housing developers; one member should represent low-income persons and families. The remaining three members are from the general public. Chapter 2306 of the Government Code establishes the administrative provisions, powers, and duties of the Department.

The Executive Director is also appointed by the Governor with the advice and consent of the Senate. The Executive Director is responsible for the overall administration of the Department and its programs and directing the operations of the Department staff.

The Board has contracted with a Financial Advisor to assist with the management of the debt-issuance function. The Financial Advisor also occasionally provides investment advice.

⁹Fiscal Year 1995 Annual Financial Report.

Investment Policies

The Department falls under the Public Funds Investment Act (Act) which became effective September 1, 1995. The Board approved an investment policy which complied with the majority of the provisions of the Act. The policy sets forth the guidelines for investing. Topics covered in the policy include:

- Scope
- Prudence
- Objectives
- Delegation of authority
- Ethics and conflicts of interest
- Authorized financial dealers and institutions
- Authorized and suitable investments
- Collateralization
- Safekeeping and custody
- Diversification
- Maximum maturities
- Internal control
- Performance standards
- Reporting
- Investment policy adoption
- Acknowledgment of receipt of investment policy
- Training

The types of investments in which the Department may invest in is also restricted by the provisions of the bond indentures.

The policies direct investment staff to apply the "prudent person" standard in the management of the overall portfolio.

Investment Management

Three of the Department's employees devote a significant portion of their time to administration of the investment portfolio. Other employees have ancillary responsibilities relating to investment administration. The vast majority of the Department's investments are obtained pursuant to requirements in the Department's bond indentures and are held in trust for the benefit of bond holders.

2.4 - TEXAS DEPARTMENT OF HOUSING AND COMMUNITY AFFAIRS

Figure 19	
Total Number of Investment Professionals	3
Fiscal Year 1996 Budgeted Salary Range	\$36,108 - \$60,000
Average Salary	\$45,756
Total Investments Managed Internally	\$747.9 million*
Total Investments Managed Externally	\$0

(*Market Value and average salary as of August 31, 1996.)

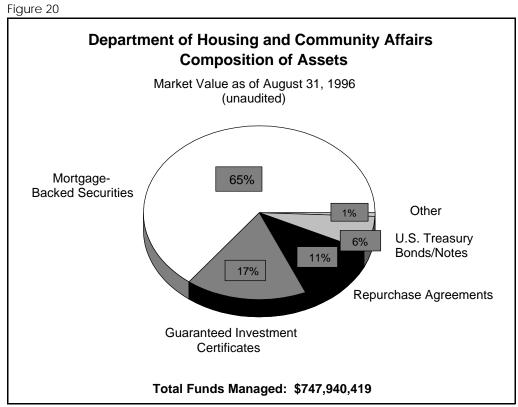
Funding Sources

The Department receives federal and state grants and issues bonds whose proceeds are used to assist persons and families of very low and low to moderate incomes with housing needs. The Department also assists local governments with various community service projects. Assistance offered by the Department "can take the form of a direct service such as rental subsidy, low-interest mortgage financing, weatherization, or an indirect service such as water and wastewater facilities provided by community development programs through local government entities."¹⁰

The single- and multi-family programs are funded by the sale of tax-exempt bonds at interest rates which are generally 100 to 150 basis points below the current mortgage market interest rates. These lower interest rates are passed to the borrower. These programs are supported by loans that the borrowers repay with their monthly payments. Bonds outstanding totaled approximately \$1.1 billion at the end of fiscal year 1996.

The Department offers a multitude of programs generally categorized under the Community Development and Community Affairs Division and the Housing Finance Division.

¹⁰Fiscal Year 1995 Annual Financial Report.



Source: Chief Financial Officer Division, Texas Department of Housing and Community Affairs

Asset Class	August 31, 1996 Book Value	August 31, 1996 Market Value
Mortgage-Backed Securities	\$483,369,961	\$483,777,342
Guaranteed Investment Certificates	\$125,166,343	\$125,166,343
Repurchase Agreements	\$86,755,002	\$86,755,002
U.S. Treasury Bonds/Notes	\$37,249,566	\$47,458,882
Other	\$4,779,650	\$4,782,850
Total	\$737,320,522	\$747,940,419

1996 Yield: 7.0011 percent

2.5 - TEXAS WATER DEVELOPMENT BOARD

Appendix 2.5: Texas Water Development Board

The Texas Water Development Board (Board) was created in 1957. The Board is primarily responsible for administering state and federally funded financing programs for water-related projects, water resource planning, data collection, and studies relative to the surface and ground water resources of Texas.

Oversight

A six-member board is responsible for overseeing the Board's activities including investment operations. Board members are appointed by the Governor with the advice and consent of the Senate.

Investment Policies

The Board's investment policy sets forth its guidelines for investing. Topics covered in the policy include:

- Prudence
- Objective and strategy by fund
- Delegation of investment authority
- Ethics and conflicts of interest
- Authorized investments
- Diversification
- Maximum maturities
- Performance standards

The policy requires that investment decisions be guided by the "prudent person" standard.

Investment Management

The Board's \$560.9 million portfolio is managed by one investment officer with a support staff of five employees.

Figure 21

Total Number of Investment Professionals	1
Fiscal Year 1996 Budgeted Salary Range	\$51,864
Average Salary	\$51,864
Total Investments Managed Internally	\$560.9 million*
Total Investments Managed Externally	\$0

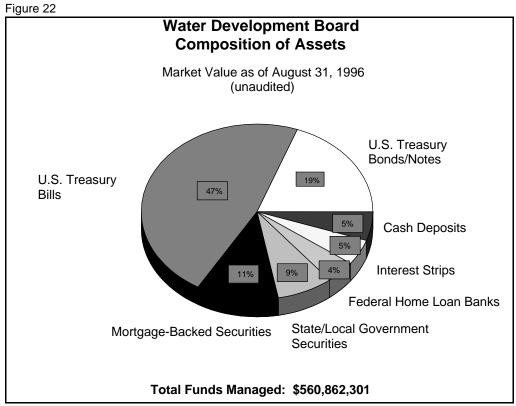
(*Market Value as of August 31, 1996 - unaudited)

Funding Sources

The Board provides financing to local governments for water- and wastewater-related infrastructure by issuing State of Texas general obligation and revenue bonds and using the proceeds to purchase local government bonds. The local governments use the proceeds to construct water-related projects, and principal and interest payments from the local governments are used to pay the debt service on the State's bonds.

The Board uses a combination of its strong credit rating for its programs and other available capital to offer rates that are generally lower than what a borrower could obtain from the market or other lending institutions. As of August 31, 1996, bonds outstanding for the Board totaled \$1.4 billion.

2.5 - TEXAS WATER DEVELOPMENT BOARD



Source: Development Fund Division, Water Development Board

Asset Class	August 31, 1996 Book Value	August 31, 1996 Market Value
U.S. Treasury Bonds/Notes	\$108,397,954	\$109,217,605
U.S. Treasury Bills	\$264,180,512	\$264,080,267
Mortgage-Backed Securities	\$63,303,229	\$63,217,076
State/Local Government Securities	\$44,462,900	\$44,462,900
Cash Deposits	\$29,185,019	\$29,185,019
Federal Home Loan Banks	\$24,065,645	\$24,064,598
Interest Strips	\$28,979,476	\$26,634,836
Total	\$562,574,735	\$560,862,301

1996 Yield to Maturity: 5.4181 percent

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In Pursuit of Objectivity in Investment Consulting

by Gary W. Findlay, Executive Director of the Missouri State Employees' Retirement System and M. Steve Yoakum, Executive Director of the Public School Retirement System of Missouri (*Plan Sponsor*, November 1996).

Investment consultants have become an integral part of our industry, providing services and expertise needed by retirement plan sponsors. Many of these consultants provide their services in an objective, independent manner. Yet whenever human activities involve money, opportunities for wrongdoing exist. The chance of a wrong act occurring is increased if the activities are not wholly understood or disclosed.

Figure 23

The purpose of this article is to describe potentially undisclosed relationships and provide retirement plan officials with tools which will lead to improvements in disclosure within their plans. Only when plan sponsors are fully informed can we expect the highest quality advice for our decisionmaking and operations. The purpose of this article is to describe potentially undisclosed relationships and provide retirement plan officials with tools which will lead to improvements in disclosure within their plans. Only when plan sponsors are fully informed can we expect the highest quality advice for our decision-making and operations.

Basic Consultant Services

Among other things, consultants provide evaluation and screening of money management firms, custodians, and other providers. For this, as well as other services, the consultant receives a fee from the client—a fee which presumably purchases expertise and objectivity.

One of the services consultants routinely provide is manager search and selection. In addition, it will frequently be the consultant's asset allocation work or manager performance review that leads to a search taking place. During the search process, the consultant usually gets discretion to author/co-author the selection criteria and develop the list of potential candidates.

From here, the consultant is likely to be involved in narrowing the list of respondents to semi-finalists and/or finalists. Usually, one firm is awarded the business from a much larger field. In most cases, the board/committee spends a few hours learning about the issues and interviewing finalists before making a decision which is frequently based on a consultant's recommendation and which may result in hundreds of thousands of dollars in annual compensation for the victor.

What a money manager faces is a winner-take-all contest. Non-investment professionals frequently make the selection, relying on input from consultants in choosing from a field of candidates who may appear very similar to the decision-makers. This is the typical selection process for members of the institutional money management community—an industry which generates hundreds of millions of dollars of fee income annually for financial service providers, and which is extremely competitive.

In this environment, any favorable inclination towards a particular management firm has tremendous economic value. Activities which can result in favorable influence can be very subtle or very direct, and may include asset allocation, manager searches, manager interviews, and ongoing performance, each with is own subset of activities.

These activities are all subject to a meaningful degree of judgment: This is not debated. We merely want to highlight the ways consultants have developed to sell their influence. Put directly, some individuals in the consulting community regularly sell their alleged objectivity for a fee to the plan sponsor community, while at the same time accepting substantial revenue from the money managers they are evaluating on behalf of their fee paying clients.

We believe that full disclosure by both consultants and money managers is critical if plan sponsors are to be confident that the advice they receive and act on is being provided in the best interest of plan participants.

Cashing in on Objectivity

A segment of the consulting community has managed to cash in on that aspect of their client relationship which should be most important—their objectivity. In many of

Figure 24

As fiduciaries, we must ask ourselves whether or not having knowledge of a substantial financial relationship between a consultant and the mangers who are being evaluated/recommended would cause us to think differently about the advice received or the consultant's relationship with the plan sponsor. these cases, the sale is made in the form of commission dollars. In others, money managers make direct cash payments to consultants. At this point, it is crucial to identify the difference between directed commissions utilized by sponsors to offset fees, and non-directed commissions used by managers to influence purchasing decisions the latter being of much greater concern.

Commission dollars generated by managers through trading activities are plan assets, and trustees have the same fiduciary responsibility regarding the prudent management and oversight of these as they do over other plan assets.

The standard industry practice is to look for commission levels that are in line with generally accepted practices—currently 5 to 6 cents per share on listed trades—and to assume that a manager's trading ability will ultimately show up in performance. Therefore, full/partial discretion regarding where trades are directed is generally left to the manager, as is the decision regarding the acceptability of the commission level. While several services now available attempt to measure "execution," we have not seen their findings used widely by plan sponsors to make decisions. Currently, the simple 5 to 6 cent "bogey" is the most widespread practical measure of a manager's trading "efficiency." The fact is that in a 6 cent-per-share trade, the profit margin exceeds the transaction cost by a multiple of at least four.

If a manager trades 50,000 shares at a commission rate of 6 cents per share, this generates a \$3,000 commission, leaving about \$2,400 in profit considering the actual cost of the transaction. To put the magnitude of this activity in context, on July 8, 1996, the 440 million shares traded on the New York Stock Exchange generated a profit, based on the above math, of \$21.1 million for the day. Where does this money go?

Research/analytical software: If the commission goes to a brokerage house, it will be used to pay traders and support a research department, and/or add to the brokerage division's profits. In exchange, the brokerage house "rewards" money managers with research and other services allowed under SEC Rule 28(e). Conceptually, this results in money managers using client assets to reduce the out-of-pocket expenses of running their businesses.

Commission recapture: In the early 1970s, brokerage firms began offering consulting services—usually in performance measurement—to attract commission income. One of the selling points was that this service did not require any out-of-pocket cash from the plan sponsors. It was often promoted as being "free," since commissions paid for the service and were going to be the same regardless of the brokerage firm the sponsor used, since rates were fixed.

Even with elimination of fixed rate commissions, the popularity of this free service concept spread throughout the plan sponsor community as additional consulting firms emerged. As the industry evolved, a number of brokerage firms began offering to use a portion of its commission dollars to make direct payments back to the plan sponsor or to service providers designated by the plan sponsor. This activity has picked up the label "commission recapture."

Soft dollars: As an alternative to payment through a recapture firm, the plan sponsor can instruct the money manager to execute trades through a consulting firm's broker-dealer, or through a relationship established by the consultant with a broker-dealer. The \$2,400 trading profit in our earlier example can be credited as an offset to consulting fees. The key question for plan sponsors in this relationships relates to the crediting rate the consultant is giving relative to gross commissions received.

The above practices are all examples of the legitimate use of directed brokerage. In every case, the plan sponsor and/or its managers receives something of value for payments over and above the cost of the trade. These activities are not being targeted here as long as they are disclosed.

But much of the consulting community's compensation from money management firms is not disclosed. It is very important to distinguish this activity from a directed brokerage relationship. With directed brokerage, the manager does the trades—but at the direction of the plan sponsor, to satisfy the sponsor's obligation to compensate the consultant.

Figure 25

In no instance have we attempted to make determinations regarding what each plan sponsor should or should not consider acceptable behavior by a vendor. That ultimately is a very individual decision, driven by the desire to act as responsible fiduciaries. Our objective is to attempt to shed light on consulting/money management industry relationships and compensation alternatives available to consultants. In the absence of this knowledge, it is virtually impossible for plan sponsors to make decisions with which they can have any degree of comfort. Following are financial relationships that exist between money managers and consultants, of which the plan sponsor would typically have no knowledge. Again, our focus is on disclosure. As fiduciaries, we must ask ourselves whether or not having knowledge of a substantial financial relationship between a consultant and the mangers who are being evaluated/recommended would cause us to think differently about the advice received or the consultant's relationship with the plan sponsor.

Marketing instructions: The money manager rarely has extensive discussions with the plan sponsor about what it wants/needs/prefers/favors in a manager. However, consultants do have these discussions. A few independent consulting firms with no ties to manager search activities help investment managers prepare their marketing presentations. However, a number of firms that offer objective advice to plan sponsors also advise money managers regarding how to get the plan sponsor's business.

For a fee—cash or commissions—the consultant will tell managers how to best position themselves for the most effective response from potential clients i.e., the consulting firm's plan sponsor clients. The question for plan fiduciaries is, "Would I consider it material if I knew that one of the firms being considered for hire as a money manager paid a substantial sum to the firm I hired to bring me qualified managers—particularly if the payment is for coaching the manager regarding my account, what to say, and how to best market their services?"

Strategic advice: Investment consulting firms are uniquely positioned to gain insight into the thinking of both plan sponsors and investment management organizations. Some firms have used this knowledge to diversify their revenue base by offering investment management and investment banking services. A few have packaged their services to include a stable of investment managers that financial planners, in turn, sell to small investors. The various ways that consultants have been able to use their plan sponsor relationships to earn fees from the investment management community carry the potential for conflicts of interest.

Educational conferences: No one can deny the need for continuing independent education of plan sponsor fiduciaries. One of the most popular and effective methods is through educational conferences or seminars. These

meetings provide an exceptional opportunity for plan sponsor education. But, when completely orchestrated by the consultant, they also offer the consulting firm an exceptional opportunity to market services to existing and potential clients, and, at the same time, profit by charging substantial amounts to money managers who wish to attend.

While a client/prospect pays little or nothing to attend such a conference, money managers typically pay a substantial attendance fee to underwrite these events. Here a distinction must be made between meetings arranged by conference sponsoring organizations and conferences arranged by consultants. Conference sponsoring organizations do not offer themselves to plan sponsors as objective investment fiduciaries—but consultants do.

The central question regarding consultant-sponsored conferences is not whether they are beneficial to plan sponsors, but once again relates to disclosure issues: Who is paying whom to attend? Are plan sponsors who attend getting insights from the best and the brightest in our industry, or only from representatives of those firms which provide revenue to the sponsoring consultant?

Performance measurement: In almost every marketing presentation, managers show their past performance in some sample or scattergram. These charts almost always come from a consulting firm, and, on the surface, this is the logical place to get such information. The relevant disclosure issue for trustees is how big a business this is for the consultant and how many different consultants the manager retains to produce these reports.

Remember: A letter of direction from a client is all the SEC will ever need to see in order for a manager to be positioned to justify an action. A good rule of thumb is as follows: If a manager buys performance reports from a dozen consultants, they are probably more interested in a paper trail than in having a dozen provocative ways to show their composite performance.

"Free" trades: This is the most potentially lucrative, yet often overlooked, way for a money manager to compensate a consultant. Because not every commission dollar is needed or spoken for in a manager's portfolio for research or direction, a sizable portion of trades are left completely to the money manager's discretion to execute. Many managers have determined that it never hurts to have a consultant who looks favorably upon them at search/evaluation time.

One of the more direct ways for a money manager to achieve this is to simply pay them by doing trades through a broker who has a relationship or relationships with the consultants. This way, the full 80 percent profit we have discussed may simply accrue to the consultant. In many instances, this activity generates hundreds of thousands of dollars of profit for the consultant from a single manager. This is another area that demands disclosure and further communication between plan sponsors, consultants, and money managers.

Conclusion

"No profession can have legitimacy without accountability," respected industry observer Keith Ambachtsheer wrote in the *Financial Analysts Journal* in 1994. We sincerely believe that accountability begins with disclosure. It is no surprise that when one understands the financial motivations and rewards of any situation, it helps explain certain behaviors.

In no instance have we attempted to make determinations regarding what each plan sponsor should or should not consider acceptable behavior by a vendor. That ultimately is a very individual decision, driven by the desire to act as responsible fiduciaries. Our objective is to attempt to shed light on consulting/money management industry relationships and compensation alternatives available to consultants. In the absence of this knowledge, it is virtually impossible for plan sponsors to make decisions with which they can have any degree of comfort.

Sample Questionnaire

The following are sample questions which plan sponsor fiduciaries may wish to ask their current or prospective consultant and money managers in order to begin assessing the extent to which current or potential conflicts of interest may exist.

Required Disclosures for Investment Consultants

In the interest of fulfilling their fiduciary responsibilities, the members of the Board of Trustees are obligated to understand the relationships, if any, which exist among the system's various service providers. Accordingly, we would appreciate it if you would provide answers to the questions which follow:

1. Please list all services your firm, its principals, or any affiliate provide that generate revenues for the firm and indicate the applicable percent of your firm's total revenue during the last three years. Did these services produce 100% of your firm's revenue during the reporting period? If not, provide information regarding differences.

	19XX	19XX	19XX
Revenues from consulting with plan sponsors	%	%	%
Revenues from money management activities	%	%	%
Revenues from services to money managers	%	%	%

2. Does your firm, its principals, or any affiliate, own any part of a money management firm, broker-dealer, or other organization that sells services to institutional investors and/or SEC registered investment advisors? If so, identify the firm(s) and describe the relationship.

- 3. Do you offer a broker/dealer facility to sponsor clients to pay for or offset your fees? Are there additional services you offer plan sponsors through your broker/dealer? What conversion ratio ranges are clients paying when using directed brokerage to satisfy your fees?
- 4. Has your firm, its principals or any affiliate ever (i) been the focus of a non-routine Securities and Exchange Commission (SEC) inquiry or investigation or a similar inquiry or investigation from any similar federal, state or self regulatory body or organization, (ii) been a party to any litigation concerning fiduciary responsibility or other investment related matters, or (iii) submitted a claim to your errors and omissions, fiduciary liability, and/or fidelity bond insurance carrier(s)? If yes to any, please provide details.
- 5. Please list all of your clients which have issued specific letters of direction to brokers related to payments for your consulting services.
- 6. Please list all money management firms from which your firm, its principals, or any affiliates, receive compensation. Please identify these revenue sources as client directed, payment for services, and/or revenues not related to a letter of direction or specific services. (Place a check mark by all that apply).

Firm Name	Client Direction	Money Manager Services	Non-Client/Non- Service Related Revenues

7. For the year ended ______, please complete the worksheet on the following page with specific information related to amounts your firm, its principals, or any affiliate received from each of the System's money managers, identifying all revenues resulting from both direct payments and gross directed brokerage.

I hereby attest that all information submitted on behalf of _____

its principals, and affiliates is accurate and complete. As a Registered Investment Advisor/NASD member firm/subscriber to the AIMR Code of Ethics, I am familiar with the issues and standards of disclosure and confirm that our responses to the previous questions contain no material commission or misrepresentation by or on behalf of the firm.

Submitted for the firm by: _____

Money Management Firm Name						
	Cash	Brokerage	Cash	Brokerage	Cash	Brokerage
Client Directed Payments						
Products Purchased By Money Managers						
Performance Measurement						
Marketing/Strategic Placement						
Educational Conferences						
Software						
Style Analysis						
Non-Product Related Manager Payments						
Grand Total						

Required Disclosures For Money Managers

The Trustees (have hired/are considering hiring) <consulting firm> as the fund's investment consultant. As fiduciaries, the trustees are obligated to be informed about any relationship between your firm and the consultant which may impact the consultant's real or perceived ability to be objective in evaluating your activity related to the fund. Accordingly, we would appreciate if you would provide answers to the questions which follow:

Has <consulting firm> received any compensation from your firm (either cash or commissions) in the past year? This includes commissions of any sort resulting from trades initiated by your firm which were executed by an affiliated broker/dealer (referred to as an "Agent" of the consulting firm) or through a brokerage relationship in which <consulting firm> receives the newt proceeds of the trade. Please provide information regarding the dollar amount, if any, associated with trading activity for calendar 19XX/the year ended ______, ____, 19XX).

		ayments: list services received and cost)
		\$
В.	Client	Directed Brokerage.
	<cons< td=""><td>identify the total directed brokerage commissions resulting from trades through ultant> or its agent for accounts in which you have a specific letter of direction from sponsor. \$</td></cons<>	identify the total directed brokerage commissions resulting from trades through ultant> or its agent for accounts in which you have a specific letter of direction from sponsor. \$
		provide a separate list of the plan sponsors which have directed you to trade h <consultant> or its agents.</consultant>
C.	resultir	lient Directed Brokerage. Please identify the total gross brokerage commissions ng from trades through <consultant> or its agent for accounts in which you do not a specific letter of direction from a plan sponsor. \$</consultant>
	1.	What services were received for the non-directed trades? Please list each service and gross commission amount paid for each service.
		\$ \$ \$ \$ \$ \$
	2.	What conversion rate are you credited with towards payment for the preceding services?
		Question B =% Question C =%
D.	agent	e itemized listings in questions A, B, and C reflect all compensation <consultant> or its received from your firm over the specified period? If no, please detail payments overed in questions A, B, and C.</consultant>
an firn dis co	d affilia n/subsc closure mmissic	ttest that all information submitted on behalf of, its principals, tes is accurate and complete. As a Registered Investment Advisor/NASD member riber to the AIMR Code of Ethics, I am familiar with the issues and standards of and confirm that our responses to the previous questions contain no material on or misrepresentation by or on behalf of the firm.
Sul	omitted	for the firm by:

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Appendix 4: Glossary of Terms

Asset Allocation (Asset Mix)	The process of diversifying an investment portfolio among asset classes (stocks, bonds, real estate, etc.) in order 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 (bps)	The smallest measure used in quoting yields. One basis point is .01 percent, or $1/100$ of a percent of yield. 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.
Benchmark	Something 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 S&P 500 (Standard & Poor's 500). See also Index and S&P 500.
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 having 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 STIF (short-term investment fund) or similar fund. Such securities help to 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 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 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, bondholders, and preferred stockholders.
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 contract 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 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 the purpose of producing income.
Equity Investments	Ownership interest possessed by shareholders in a corporation—stocks as opposed to bonds.
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.
Financial Benchmark	See Benchmark and Index.

Fixed Income Investments	A security that pays a fixed rate of return, in the form of interest or dividends, over a specified period of time and include 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.
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. In addition, the administrator may indemnify the lender for any losses incurred on the reinvestment of cash collateral provided by the borrower.
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 York Stock Exchange Index, Standard & Poor's Index, and the Shearson Lehman Aggregate 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.
Liquidity	The ease with which an asset can be converted to money. Also, the ability to but or sell an asset quickly and in large volume without substantially affecting the price.
Maturity	The date on which a debt's principal is to be repaid.
Modern Portfolio Theory (or 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.
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.
Planned Amortization Class (PAC)	A type of collateralized mortgage obligation (CMO) that provides investors with more predictable cash flows and more stable average lives than other CMO tranches. PACs have priority over other tranches to receive a predetermined schedule of principal payments over a range of prepayment scenarios. As long as prepayment speeds remain within the predetermined "prepayment band," the PAC tranche has a fixed principal payment schedule that must be met before other tranches receive principal payments.
Portfolio	A combined holding of more than one investment. The purpose of a portfolio is to reduce risk by diversification.
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, variability, or standard deviation 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 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 Stock Exchange.
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 return the collateral to the borrower upon maturity of the loan and return of the borrowed securities.
Small Capitalization Stocks (Small Cap)	Stocks of companies with market capitalization of \$500 million or less. Such stocks generally represent companies that are less well-established, but are often faster growing than mid caps (market capitalization of \$500 million to \$3-5 billion) or large caps (\$1 billion or more). They are often more volatile than stocks of more well-established companies.

Total Return	The annual return on an investment including appreciation and interest or dividends.
Tranche	A class into which a multi-class security, such as a collateralized mortgage obligation (CMO) is split. The different tranches of a CMO, which may range from a fast-pay class to long-term slow-pay class, are designed to meet different investor objectives for portfolio diversification.
Volatility	The extent to which a security or market tends to rise or fall sharply in price within a short-term period.
Yield	The annual return on an investment (from dividends or interest) expressed as a percentage of either cost or current price. Yield is one component of return.

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