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A Performance Audit of the Investment Practices of the Utah Retirement Systems

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Digest of A Performance Audit of the Investment Practices of the Utah Retirement Systems

The surest way to achieve the long term investment goals of a public pension fund is to develop a prudent, long term investment strategy and stay with it. Focusing too much attention on short term performance could lead fund managers to make hasty investment decisions that could put the fund at risk of not achieving its long term objectives. While Chapter I of this report provides some information regarding the returns achieved by the retirement fund, the balance of this report focuses on the use of prudent investment procedures. Although the Utah Retirement Systems (URS) is, for the most part, following prudent investment practices, there are several areas which can be strengthened. The following summarizes the key findings:

The URS has followed a reasonable process for setting an asset allocation policy but has not always followed the policy.

More Discipline Needed in Applying Asset Allocation Policy. The board's investment policy is designed to achieve an optimal return on investment for the level of risk considered acceptable by the board. Although the URS uses a reasonable process to decide how much to invest in each type of investment, the actual investment practices have sometimes varied from the board's allocation policy. If the fund's investments are not allocated according to policy, it increases the likelihood that the fund will not achieve the board's investment goals.

Three decisions that have caused the retirement fund to stray from the board's asset allocation policy include: (1) altering the policy targets without adequate study or board approval; (2) placing investments in the wrong asset class; and, (3) failing to rebalance or adjust the mix of investments in order to maintain the proper asset allocation. We recommend that the board impose greater discipline on the investment process by requiring strict compliance with its asset allocation policy.

Board Should Provide Better Oversight of Strategic Risk. The Retirement Board should provide better oversight of the strategic decisions made by staff. A strategic decision is defined as an investment that moves the fund away from the policy benchmark described in the

board's asset allocation policy. For example, the board may choose to overweight the fund in a certain market sector or style.

Strategic decisions need oversight because they may affect the fund's risk and return objective.

The board needs to use great caution when approving strategic investment decisions because they affect the fund's risk and return. We found that staff have made several strategic investment decisions which did not receive sufficient oversight from the board. Because strategic decisions may affect earnings by several hundred million dollars each year, the board must ensure that a prudent process is followed.

Alternative investments are complex and volatile and thus require greater oversight than other types of investments.

Improved Oversight of Alternative Investments Is Needed. The Utah Retirement Systems (URS) needs to provide greater oversight of its investments in venture capital, corporate buyouts and other private financing. Collectively, these investments form an asset class called "alternative investments." Although alternative investments present an opportunity for high returns, it is also the most volatile asset class and presents the greatest risk of poor performance. Furthermore, alternative investments are usually more complex and difficult to understand than traditional investments in stocks and bonds. Alternative investments are also illiquid and are difficult to value. For these reasons, alternative investments require greater care and supervision than other investments.

This report describes several areas that the board and staff should address in order to improve their oversight of alternative investments. The areas of concern with alternative investments include: (1) lack of specific policies; (2) inadequate performance monitoring; (3) conflicts of interest; and, (4) lack of in-house staff oversight.

Improving the governance structure could help the Retirement Board be more efficient and effective.

Board Governance Can Improve. This report identifies several steps the board could take to improve its overall governance of URS, including the following:

- Comprehensively review and rewrite the Investment Policy Statement.
- Adopt a set of governance polices.
- Consider certain other governance issues.

The governance structure affects both the effectiveness and efficiency of the board. By improving its governance structure, the board may be able to reduce the time commitment required of board members while still maintaining tight control over the systems' investments.

Chapter I
Introduction

Each state and local government agency in Utah that participates in the Utah Retirement Systems (URS) must make a regular contribution towards the retirement benefits of its employees. These contributions are placed in a state retirement fund that is managed by the URS. Because the investment performance of the retirement fund has a significant effect on the cost of government, it is essential that the Retirement Board and URS staff use prudence in the way they manage the fund's investments.

The investment performance of the Utah State Retirement Fund has a significant effect on the cost of government in Utah.

Procedural prudence requires discipline and care in order to protect the fund's assets and to provide a fair increase in value over time. Those charged with using procedural prudence are called fiduciaries. The primary fiduciaries of the retirement fund are the Utah State Retirement Board and the investment staff. In addition, the outside fund managers hired by the board also act as fiduciaries. Ultimately, the effectiveness of a fiduciary is determined not by the fund's rate of return but on the degree to which procedural prudence is used in managing the fund's assets.

As trustees of the fund, the Retirement Board has a challenging task. The seven board members include four with experience in investments or banking, one school employee, one public employee, and the state treasurer. These individuals must ensure that billions of dollars are wisely invested to maximize return and minimize risk in complex investment markets. Furthermore, board members have other responsibilities for the administration of URS and the Public Employees Health Plan. However, board members receive little compensation and have limited time available. Recognizing the challenges faced by the board, this report focuses on ways the board may be able to ensure the investment program is conducted in a procedurally prudent manner.

Investment Performance Has a Direct Effect on Government Budgets

The board's decisions about how to invest the retirement fund can have a significant effect on the budgets of governmental entities participating in the retirement systems. Employees participating in the

Performance of the fund determines the contribution rate paid by state and local agencies.

URS retirement program are guaranteed a defined benefit upon eligibility regardless of fund performance. The performance of the fund determines the amount of tax dollars contributed to the systems each year.

Both taxpayers and URS members depend on the Retirement Board to wisely invest the fund. For its part, the board has established these specific investment objectives for the fund:

- Preserve capital
- Produce a total return which exceeds the actuarial assumed (8 percent) rate over rolling five-year periods
- Maintain a risk level, as defined by standard deviation of returns, commensurate with the Total Fund Policy Benchmark over rolling five-year periods
- Generate returns over complete market cycles that exceed the passive Total Fund Policy Benchmark

Despite the efforts of the board and staff, the value of the retirement fund has declined the past two years. Although the value of the URS defined benefit fund once exceeded $13.4 billion, two years of investment losses reduced the fund to about $11.5 billion as of December 31, 2002. The decline resulted from the poor investment environment the URS has faced the past three years; other long-term investors have been similarly affected by stock market losses. In an effort to put the URS investment performance into perspective, the following sections compare it first to the actuarial assumption, second to the fund's policy benchmark, and third to other states.

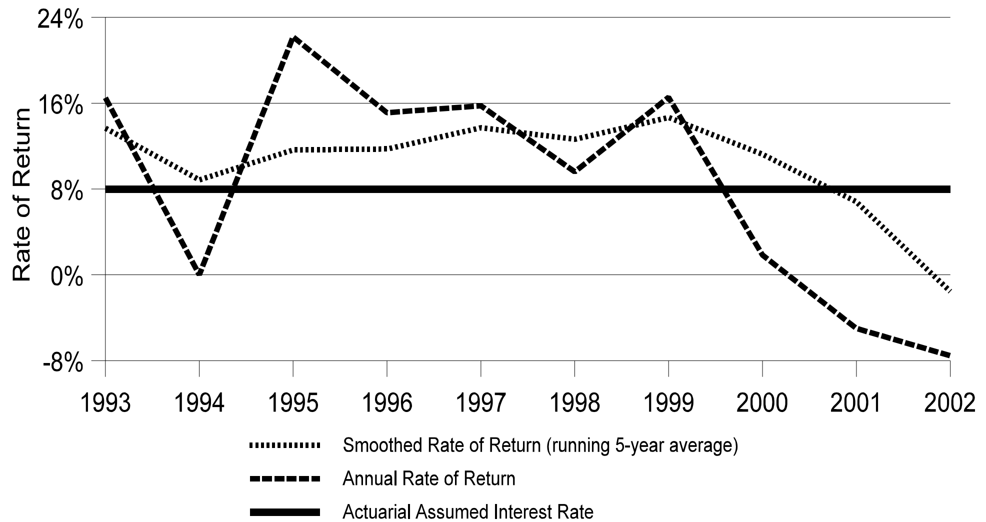
Investment Performance Compared to Actuarial Assumption

The contribution rate paid by state and local agencies is based in part on the assumption that the fund will earn an 8 percent rate of return.

An actuary hired by the URS annually determines the contribution rate needed to finance members' future retirement benefits. The contribution rate is based on the assumption that the fund's investments will earn an 8 percent rate of return. Other factors that can affect the contribution rate include the expected life span of the beneficiaries, their average salary at the end of their careers, and the average years of service by members in the system. Assuming that these other factors remain constant, the contribution rate paid by state and local agencies will increase or decrease depending on the extent to which the fund's rate of return exceeds or falls short of the 8 percent assumed rate of return.

Figure 1 identifies the rate of return achieved by the URS retirement fund during the past ten years compared to the actuarial assumption.

Figure 1. URS Investment Returns Compared to the Actuarially Assumed 8 Percent Rate. The annual rate of return is the retirement fund's gains or losses due to changes in market value. The 5 year smoothed rate of return is used by the actuary to establish the contribution rates paid by public agencies.



Source: URS 2002 Comprehensive Annual Financial Report

Figure 1 shows that the fund performed very well during the second half of the 1990's. The fund's investments grew at an average rate far higher than the 8 percent actuarial rate needed to maintain the payout to current and future retirees. Because investment returns exceeded 8 percent, the board was able to reduce the contribution rates that state and local agencies paid for their employee retirement benefits during this period.

Because of the systems' lower returns on investment in recent years, the URS will need to increase contribution rates.

In contrast to the outstanding returns achieved during the 1990s, the retirement fund has declined in value during 2000, 2001, and 2002. The result, as shown by the dotted line in Figure 1, is that the retirement systems' smoothed return on investment has dropped below the board's policy goal of achieving an 8 percent smoothed rate of return. The smoothed return is calculated over five-year periods and are used to determine the systems' contribution rates. Because of the decline in investment earnings, the URS has increased the contribution rates for 2003 and the actuary has indicated that an increase will be needed for

2004 as well. Not shown is the fund's 10 year average return which, at the end of December 2002, was 8.05 percent.

Investment Performance Compared to Policy Benchmark

A second way to evaluate URS investment performance is to compare the retirement fund's return on investment to that of a benchmark comprised of the various market indices. It is a common practice among state retirement systems to measure the performance of an asset class against one or more commonly used market indices. A market index is designed to measure price changes of an overall market, such as the stock market or the bond market. The retirement fund measures the performance of each asset class using a different market index appropriate for that asset class.

For example, the Russell 3000 index is a commonly used tool for measuring the performance of the U.S. equities market. The index reflects the value of the largest 3000 publicly traded stocks. Other indices are used for each of the different asset classes in which the URS invests. Combined, the indices form a single benchmark that is used to measure the fund's overall performance. Since it adjusts to the investment environment, the benchmark provides a more reasonable method of evaluating investment decisions than the fixed 8 percent actuarial assumption. Figure 2 compares URS' actual returns to its policy benchmark for the past six years.

Figure 2. URS Investment Returns Compared to Policy Benchmark. The fund's return on investment (as a percent of funds invested) was well below the benchmark in 1998 and well above the benchmark in 2000.

	1997	1998	1999	2000	2001	2002
Retirement Fund	15.78	9.65	16.58	2.11	(5.10)	(7.54)
Policy Benchmark*	15.15	15.62	16.00	(2.38)	(4.44)	(6.64)
Over or (Under) Performance	.63	(5.97)	.58	4.49	(.66)	(.90)

*Actual benchmark may change from year to year. From the year 2000 to 2002 the benchmark consisted of 40% Russell 3000, 20% Lehman Bros. Aggregate Bond Index, 18% MSCI All Country World Ex US Equity Index, 7.7% NCREIF Real Estate Index, 7% Alternative (Fixed 15% ROI), 4% SB World Govt Bond Index, 2% SB Non-US Govt. Bond Index, 1.4% NAREIT Real Estate Index.

Because of its alternative investments, the fund exceeded its benchmark rate of return in the year 2000.

One weakness of the policy benchmark used by the URS is that one of its components does not reflect the rise and fall of the market. For the alternative investment class, the benchmark is based on a fixed 15 percent nominal return regardless of market conditions. The URS alternative investments achieved a 49 percent return on investment in the year 2000, which was significantly over its fixed 15 percent benchmark. The use of a fixed 15 percent rate of return for alternatives helps explain why the retirement fund significantly outperformed its benchmark that year. On the other hand, during the years 2001 and 2002, the alternative investments experienced a significant decline in value but was still judged against a 15 percent nominal benchmark. The significant under-performance by the alternative investments to its 15 percent benchmark largely explains why the retirement fund fell below its broad policy benchmark during those years. The reason for the fund's large under-performance in 1998 was due to an over-weighting of small cap and value stocks that year.

Investment Performance Compared to Other States

A third way to evaluate URS investment performance is in comparison to other states' retirement systems. While there are always differences, The Utah Retirement Systems has similar investment objectives and operates in a similar investment environment as the retirement systems in other states. Figure 3 shows the investment returns for the past three and five-year time periods as of June 30, 2002.

Figure 3. URS Investment Returns Compared to Other States. The 3-year and 5-year returns of URS and other state retirement systems are shown as of June 30, 2002.

State Retirement Systems	3-Year Returns	5-Year Returns
Arizona	(2.00)%	5.90%
California	(1.12)	5.41
Colorado	(1.03)	5.08
Idaho	(0.40)	5.34
Nevada	1.05	5.76
New Mexico	2.31	7.92
Oregon	1.03	6.20
Washington	0.42	5.80
Wyoming	(1.18)	5.82
AVERAGE:	**0.10%**	**5.91%**
UTAH	**0.95%**	**4.91%**

During the past five years, the URS' investment returns have lagged behind those of other western states.

URS investment returns exceed the average of the other western states over the past three years but lagged behind during the past five years. As reflected in the URS investment objectives, performance over a five-year period is an important measuring stick. However, the relatively lower returns achieved during the 5-year period is largely attributable to the fund's performance in 1998 which, as mentioned, was due to a decision to emphasize certain market sectors which performed poorly that year.

Disciplined Approach to Investing Is Essential

Retirement Boards must ensure that prudent investment procedures are followed.

Because the performance of a state retirement fund is so important to beneficiaries and taxpayers, and because it has such a large effect on state and local budgets, it is essential that retirement boards require that a prudent investment process be followed. While many staff and contractors have fiduciary obligations to the fund's beneficiaries, the board also has a responsibility to ensure that the fund, as a whole, is wisely invested. To fulfill this responsibility, the board needs to govern in a manner that ensures that prudent investment procedures are followed. By implementing a prudent process, the board can effectively manage the many types of risks inherent in an investment program.

Utah Code Establishes Board Responsibilities

Utah law defines the board's responsibilities for the retirement fund as well as the standards of care and performance that the trustees must meet. *Utah Code* 49-11-Part 3 states that "the board shall act as trustees of the Utah State Retirement Investment Fund." In addition, the law states that the board "shall review and establish the asset allocation . . . and with the executive director, shall determine the method of investing the funds."

Utah law also identifies a set of standards of care and performance for trustees. Among those standards is the requirement that funds "be invested in accordance with the prudent investor rule under Section 75-7-302." The prudent investor rule requires that a "trustee shall exercise reasonable care, skill, and caution" and follow the prevailing standard of "how persons of prudence, discretion and intelligence exercise the management of their own affairs." The standard also emphasizes safety and the "permanent disposition" of the funds and not "speculation."

The prudent investor rule requires a trustee to exercise reasonable care, skill, and caution.

When evaluating the performance of trustees and the decisions they make, the law requires that trustees not simply be judged according to the return on investment achieved by the fund. Instead, their decisions must be judged "in the context of the trust portfolio as a whole and as part of an overall investment strategy having risk and return objectives reasonably suited to the trust." Furthermore, "a trustee shall make a reasonable effort to verify facts relevant to the investment and management of trust assets."

Board Training Provides Good Investment Management Framework

As noted above and also emphasized in investment texts, fund trustees should not be judged in terms of the rate of return achieved by the fund. For example, according to the Investment Management Council: ". . . in the end, it's procedural prudence, not performance that counts." URS staff and consultants provide training to board members that emphasize the importance of procedural prudence and describe the essential steps in the investment management process.

A fiduciary's effectiveness is judged not by the fund's rate of return but on the degree to which prudent procedures are used.

There are many different models that can be used to develop a systematic way to approach fund investments. One very good model that is used in Retirement Board's training materials is described in *The Management of Investment Decisions*. This book identifies five steps in the investment management process:

- **Analyze current position.** Review existing assets, liabilities, actuarial assumptions, investment strategies, external constraints and internal policies.

- **Design optimal portfolio.** Decide how assets will be invested. The importance of this step is highlighted by the ***Utah Code*** requirement that the board establish the asset allocation.

- **Formalize investment policy.** Prepare written guidance for staff, consultants, and managers that clearly communicates investment plans and establishes controls necessary to ensure an effective decision-making process.

- **Implement policy.** Hire fund managers to invest funds in accordance with the established investment plan and policies.

- **Monitor and supervise.** Ensure adherence to policies by staff. Evaluate performance by fund managers and ensure that they comply with contracts.

"Procedurally prudent judgements must replace intuition and/or decisions influenced by market noise..."

The authors explain why it is important to develop a prudent process and stick with it: "For fiduciaries and investors to make informed long term investment decisions, procedurally prudent judgments must replace intuition and/or emotional decisions influenced by market noise, press-appointed investment gurus, or product peddlers." In other words, fiduciaries need to develop an investment plan and avoid basing investment decisions on the day-to-day fluctuations in the market which do not provide meaningful information about the market's direction.

One useful guide for developing a prudent investment process is the **Code of Fiduciary Conduct** which is included in the board's training material. This code, described in Figure 4, is based on the standards codified by the federal Employee Retirement Income Security Act (ERISA) that provides standards for the management of corporate employee pension funds. Although the URS, as a governmental plan, is not subject to ERISA, the act nevertheless sets a standard that all pension fund fiduciaries should follow.

Figure 4. Code of Fiduciary Conduct. The code describes the standards of conduct for fiduciaries and trustees of an employee retirement plan.

Code of Fiduciary Conduct
• Prepare written investment policies, and document the process used to derive investment decisions.
• Diversify portfolio assets with regards to the specific risk/return objective of participants/beneficiaries.
• Use professional money managers ("prudent experts") to make investment decisions.
• Control and account for all investment expenses.
• Monitor the activities of all money managers and service providers.
• Avoid conflicts of interest.

According to ERISA, a fiduciary is "one who occupies a position of confidence or trust and who exercises any power of control, management or disposition with respect to moneys or other property of an employee benefit fund or who has authority or responsibility to do so." The standards in the **Code of Fiduciary Conduct** are some of the elements of a prudent investment process that fiduciaries are expected to follow.

The standards in the Code of Fiduciary Conduct are some of the elements of a procedurally prudent investment process that fiduciaries are expected to follow.

Additional Documents Also Provide Good Investment Management Framework

The following documents were also used to identify additional prudent investment procedures that the URS should consider following:

- *Public Pension Systems Statement of Key Investment Risks and Common Practices to Address Those Risks*: Association of Public Pension Fund Auditors (APPFA) Committee.
- *Risk Standards for Institutional Investment Managers and Institutional Investors*: Consortium of Fund Investment Experts.
- *GFOA Recommended Practices - Committee on Retirement and Benefits Administration*: Government Finance Officers Association.

- *The Management of Investment Decisions:* Donald B. Trone, William R. Allbright, and Philip R. Taylor.

We used these documents to identify best practices for the administration of pension funds. Some of the prudent procedures identified in these documents are referred to in some detail in later chapters of this report.

Scope and Objectives

The Legislative Audit Subcommittee asked the Auditor General to review the investment practices of the Utah Retirement Systems and to follow-up on related prior audits. Prior audits were conducted in 1982, 1989, and 1991. We found that, for the most part, recommendations from the prior audit reports about real estate investments, hiring practices, compensation practices, and other human resource management practices have been implemented. Audit fieldwork for this report focused on the systems' investment practices.

The principal objectives of this audit were to identify the extent to which prudent procedures have been implemented by the Retirement Board and the staff responsible for the investments of the retirement fund. However, during the course of our work we became concerned about possible conflicts of interest with some personal investments of the URS chief investment officer. Therefore, we reviewed these activities with the assistance of the Utah Division of Securities and issued a separate report, numbered 2003-01, addressing them.

Our specific audit objectives included in this report are:

1. Evaluate whether URS appropriately determines and implements its asset allocation policy.

2. Evaluate whether strategic investments are adequately controlled.

3. Evaluate whether the use of alternative investments is adequately controlled.

4. Identify possible ways to improve board governance.

Chapter II
More Discipline Needed in Applying Asset Allocation Policy

The URS has followed a reasonable process in setting its allocation targets but has not always implemented its allocation policies.

The Utah Retirement Systems (URS) needs to improve the implementation of its asset allocation policies because the allocation of assets has a great impact on the investment earnings of the retirement fund. We determined that the URS follows a reasonable process in establishing an allocation policy that balances risk and return. However, we found that investment practices have sometimes varied from the established asset allocation policy reducing the likelihood of achieving the desired investment results. We recommend that the board impose greater discipline on the investment process by requiring stricter compliance with a more well-defined asset allocation policy.

Decisions regarding the allocation of assets are more important than decisions regarding which fund manager to hire.

In a diversified fund, deciding which asset classes to invest in and how much of the portfolio to invest in each asset class is more important than which strategies or styles to use or which fund manager to hire. For this reason, the ***Utah Code*** states that one of the primary responsibilities of the Retirement Board is to "review and establish the asset allocation of the Utah Retirement Investment Fund" (***Utah Code*** 49-11-302). Figure 5 shows the current allocation targets and the actual allocation for each asset class.

Figure 5. Utah Retirement Systems Asset Allocation Targets. The actual allocations for December 2002 were close to the policy targets.

Asset Class	Policy Allocation Targets	Actual Allocation
Domestic Equity	40%	38.9%
International Equity	18	17.9
Domestic Fixed Income	20	20.1
Global Fixed Income	6	6.1
Real Estate	9	9.2
Alternative Investments	7	6.9
Cash	0	1.0

Asset allocation means identifying the optimal allocation of assets and then sticking with it.

The second part of an effective asset allocation plan is to stay as close to the target allocation as possible without incurring unwarranted transaction costs. Developing a plan and sticking with it will help assure that investments obtain the return objective with the intended risk level.

Reasonable Process Is Followed To Select an Optimal Allocation

The process that the URS uses to establish its asset allocation policy is a good one. Approximately every three years the board hires a consultant to conduct a formal asset allocation study. The asset allocation study identifies an allocation policy, or mix of assets, that in the long run should produce sufficient returns to meet the systems' liabilities. The URS recently conducted another asset allocation study to assist in establishing a new allocation policy. We identify several minor concerns that the board should consider when selecting allocation targets.

Formal Study of Optimal Returns Used to Establish Allocation Targets

Identifying an optimal allocation policy is a complex process because it involves predictions about the future performance of each asset class and the correlation between individual asset classes. Based on their market assumptions about each asset class, the consultant identifies the range of asset mixes, or efficient frontier, that will produce the highest possible return for a determined level of risk. The board then selects a policy target that balances its return objectives with its tolerance for risk.

Efficient Frontier Determined by Market Assumptions. The asset allocation analysis is based on the principle that each asset class has different risk and return characteristics. By evaluating the characteristics of each asset class, the different asset classes can be combined into a set of portfolios that optimize risk and return.

The first decision the board makes is to identify the type of assets that will be included in the portfolio. For example, board members might decide to limit the portfolio to U.S. stocks and bonds or choose to include other investments such as foreign securities, real estate and private equity. Once a set of asset classes has been selected, the consultant will then identify a mix of assets that optimizes risk and return. The optimal

portfolio mix is based on a set of assumptions made for each asset class. For each asset class, the consultant will prepare an estimate for:

Projected return, risk and correlation for each asset class are used to identify efficient portfolio mixes.

- *Expected return*---an analysis of historical returns combined with projected economic scenarios

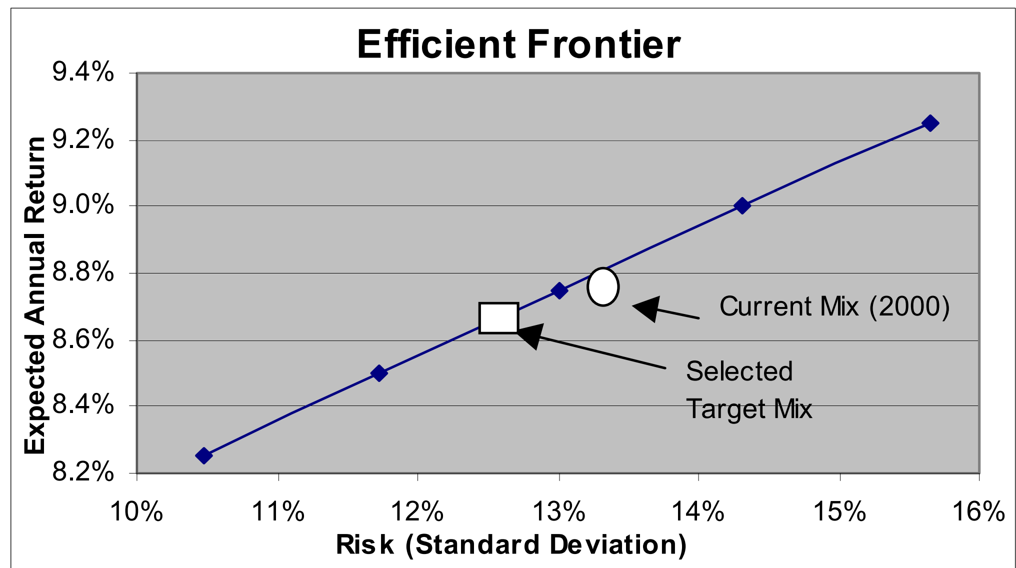
- *Projected risk or volatility*---measured by the standard deviation of returns

- *Correlation between asset classes*---how asset classes perform in relation to one another with preference given to asset classes with a low correlation so that if one asset class decreases in value another will increase in value.

Based on the assumptions made regarding each of the above attributes, the consultant is able to identify those portfolios that will achieve the highest return on investment for each level of risk.

Collectively, the portfolio options that maximize return at given levels of risk form what is called the efficient frontier. Figure 6 shows a section of the efficient frontier that consultants presented to the board for an asset allocation study conducted in 2000.

Figure 6. URS Asset Allocation Study Develops Choices For An Optimally Allocated Mix. An efficient frontier is the balance between return objectives and risk tolerance.



The portfolio mixes that are on the efficient frontier would offer an optimal return for the level of risk. The figure shows that the current mix at the time the study was performed was not on the efficient frontier and was, therefore, not expected to achieve the highest possible returns for the level of risk. The new target mix that was eventually adopted by the board was efficient because it achieved the greatest possible returns for the level of risk assumed.

Board Chooses Optimal Asset Allocation Targets. After the consultant identifies the efficient frontier, the board must select which optimal mix of assets will be formally adopted as its policy target. There are four things the board must consider as it decides which mix of assets is selected:

- asset class preferences
- time horizon
- return objectives
- risk tolerance

The board chooses its asset class preferences and the time horizon for each asset class before the consultant completes the study. Then, based on the results of the study, the board selects an asset mix that best suits the board's return objectives and its tolerance for risk.

The board weighs its return objectives and risk tolerance to choose the optimal asset allocation policy targets and rebalancing ranges.

In addition to policy targets, the board sets rebalancing ranges. The ranges limit how much the actual asset value may stray from the policy targets before rebalancing back to the target is required. Ranges are designed to keep the fund as close as possible to its policy targets without incurring excessive transaction costs from rebalancing the portfolio too often.

Figure 7 shows the targets and the rebalancing ranges for each asset class that were adopted as board policy following the 2000 asset allocation study. The asset mix adopted by the board represents its choice of the best balance of return and risk for the URS investment fund. Because the mix chosen is on the efficient frontier, additional expected returns can not be achieved without accepting additional risk.

The optimal asset allocation mix chosen by the board balances return objectives and risk tolerance.

Figure 7. Utah Retirement Systems Policy Asset Allocation Targets. The allocation targets URS chose were based on an analysis balancing risk and return. Ranges around each target trigger a rebalancing process to keep the fund as close to the targets as possible.

Asset Class	Policy Allocation Targets	Rebalancing Ranges
Domestic Equity	40%	35-45%
International Equity	18	13-23
Domestic Fixed Income	20	16-24
International/Global Fixed Income	6	4-8
Real Estate	9	5-13
Alternative Investments	7	5-11

Investment policy requires that the asset allocation targets be reevaluated whenever needed, but at a minimum of every five years. Since 1994, consultants have completed asset allocation studies every three years.

2003 Asset Allocation Study

In March 2003, the board conducted a new asset allocation study to identify any changes needed in the board's current asset allocation policy. We identified several minor concerns for the board to consider when developing new asset allocation policy.

Consider Optimal Portfolio Separately from Transition Costs. When considering a new allocation policy, it is important that the board not be overly concerned about the costs of making changes to the actual allocation. During a past asset allocation study, the URS decided to minimize the change made to its asset allocation policy because the staff was concerned about the transaction costs that would be necessary if they were to make large shifts in the portfolio. While transaction costs are a consideration, they shouldn't prevent the board from adopting a new asset allocation policy that would otherwise provide an optimal mix of assets. If necessary, a transition plan can be developed to minimize transaction costs if possible. Regardless, if transaction costs are a concern, the staff

should estimate those costs in order to verify that they are actually a barrier to adopting the consultant's proposed mixes.

Consider Adopting Policy Targets for Subclasses. Because the domestic equity asset class is so large—comprising roughly 40 percent of the fund—the board may want to consider establishing targets for some categories (subclasses) within the asset class. Before 2000, the URS policy separately classified large and small capitalization (cap) domestic equities. In recent years the policy combined the two into a single asset class, domestic equity. Investments have shifted to include more small cap equities. Prior to the policy change, domestic equity targets included 80 percent large cap and 20 percent small cap. Domestic equities now include about 30 percent small cap investments.

Consider Reducing the Amount Allocated to Illiquid Classes. URS has a larger allocation to real estate (9 percent) and alternative investments (7 percent) than most other public pension funds. These asset classes are often illiquid because the investments cannot quickly be sold without making a price concession and tend to require a long term commitment of funds. Some states entirely avoid making such investments because their illiquid nature makes it difficult to evaluate performance and rebalance the portfolio. Chapter IV includes additional discussion about risks associated with a large allocation to alternative investments; these are complex investments that could be better controlled by the Retirement Board.

In summary, we believe the URS follows a reasonable process in establishing optimal asset allocation targets. The recently completed asset allocation study provides a good opportunity for the board to review its assumptions and preferences. The remainder of this chapter discusses concerns with how the board's policy has been implemented.

Investment Portfolio Has Varied From Optimal Allocation

Movements away from the optimal asset allocation need to be carefully analyzed because they may change the risk/return profile of the portfolio.

While the URS has followed a reasonable process for selecting its asset allocation targets, they could be more disciplined in following the established policy. Given the importance that asset allocation has on the overall performance of the retirement fund, any decision to make changes to the asset allocation should be approached cautiously. At the very least,

staff should conduct a thorough analysis and obtain board approval before deciding to move the fund away from the optimal allocation chosen by the board. Failure to do so could change the risk/return profile of the investment portfolio. Three examples of the type of decisions that may have caused the fund to move away from the optimal asset allocation include:

- Altering targets without adequate study or board approval.
- Placing investments in the wrong asset class.
- Failing to rebalance to maintain the policy asset allocation mix.

Altering Allocation Targets Is a Concern

In 1998, significant changes were made to the targets of fixed income asset classes without presenting the board with analysis to support the proposed changes and without receiving formal board approval. The result was that funds were shifted from the domestic fixed income asset class to the international investments asset class. The shifting of assets also changed the risk/return profile of the retirement fund by moving the actual allocation away from the optimal mix that the board had approved a few months earlier. We determined that the URS would have had higher returns if it had followed policy and left the funds in the domestic fixed income asset class rather than placing them in the new global fixed income asset class created by staff.

Changes were made to the fixed income asset class without adequate analysis or board approval of the policy change.

Policy Targets Were Changed Without Board Action. As a result of an asset allocation study conducted in the fall of 1997, the Retirement Board decided to retain its existing allocation targets for both domestic and international fixed income asset classes. However, in 1998 the investment staff decided to change the allocation policy after they added a third asset class called global fixed income. Global fixed income managers hold a combination of both domestic and international investments. Without board action, staff established new targets for the fixed income asset classes as shown in Figure 8.

Figure 8. Fixed Income Targets Were Changed Without Board Action. Investment staff reduced the allocation target for domestic fixed income when they created a new global asset class.

	1998 Allocation Targets	
	As Adopted By Board	**As Changed**
Domestic Fixed Income	23%	15%
International Fixed Income	4	4
Global Fixed Income	–	8
TOTAL	**27%**	**27%**

While staff did not obtain formal board approval to change allocation targets, they feel the board gave informal approval because the board was notified that a search was underway for the new fund manager. Still, it was staff and not the board who decided to select a new fund manager that did not fit board policy. Regardless of whether the board informally concurred or not, staff should not take actions that are inconsistent with a policy that has been formally adopted by the board.

If the allocation policy had been followed, the URS may have earned $50 million more than it did.

Fund Risk and Return Was Affected. Because global managers include a mix of both domestic and international investments, the addition of the global fixed income class at the expense of the domestic fixed income class resulted in a significant increase in the fund's holdings of international bonds. According to reports from the two global fixed income managers hired by the URS, their investments were about 42 percent domestic bonds and 58 percent international bonds. Thus, the actual allocation to international fixed income totaled 8.5 percent of the retirement fund, more than double the 4 percent policy allocation in effect in 1998.

In hindsight, the URS decision to invest in global fixed income resulted in a lower return on investment for the fund. During the two and one half years when URS chose to invest in global fixed income securities, the domestic bond market performed better than the foreign bond market. We estimate that if the $800 million invested in global fixed income had been left in domestic fixed income as required by policy, the fund may have earned $50 million more than it did between March 1998 and September 2000.

Policy Targets Changed to Fit Selection of New Fund Managers. The URS should select fund managers that conform to the asset allocation policy and avoid modifying the policy to accommodate a decision to hire a new fund manager. Investment staff changed the policy targets for the fixed income asset class to make the policy fit the hiring of two global fixed income fund managers. According to a memo to URS staff from the consultant, "The funding of Fischer Francis and Capital Guardian with global fixed income mandates makes it necessary to change the asset allocation targets for fixed income."

Changing the allocation policy to fit the selection of fund managers reverses the accepted hierarchy of decisions. According to *The Management of Investment Decisions*,

> One of the most common mistakes made by investors is reversing this hierarchy of decisions by placing far too much emphasis on the selection of money managers—or worse yet, selecting money managers and then, by default, having the asset class and sub-asset class decided by the money manager.

The board's asset allocation policy should guide all investment decisions. If the investment staff wish to make investments that are inconsistent with policy, they should first ask the board to consider making a formal change to the policy.

Asset Class Composition Must Be Implemented Appropriately

The investments contained in each asset class must fit the policy guidelines for that asset class.

Another important step in implementing asset allocation policy is to identify fund managers that fit the characteristics of the asset class to which they are assigned. For the most part, we think the URS has chosen fund managers who are appropriate for the asset classes. However, we were concerned that one fund manager was transferred from one asset class to another very different asset class. In addition, other fund managers have invested a portion of the funds assigned to them in investments that do not fit their asset class. The board should ensure that fund managers fulfill the board's asset allocation plan by reviewing their asset class definitions, by reevaluating their process for selecting new fund managers, and by making periodic reviews to determine whether fund managers are complying with the objectives of their assigned asset class.

According to the *Foundation for Fiduciary Studies*, "the asset allocation strategy being followed is based on the assumption that each asset class is going to be implemented by a manager and/or fund that exhibits the same performance characteristics (risk/return) as the asset class." The asset class characteristics are shown by the investment benchmarks included in policy. Individual fund manager's benchmarks may vary, but, in aggregate, the manager benchmarks in each class should approximate the class benchmark. If asset classes drift away from underlying policy benchmarks, then the overall risk and return profile of the fund may be affected and, therefore, need to be better controlled by the board. However, the board may sometimes make the strategic decision to intentionally move the fund away from the policy benchmark. As described in Chapter III, strategic investments should only be made with the board's approval and supervision.

A high risk investment was placed in the domestic fixed income asset class.

Fund Manager Was Reclassified from Alternative to Fixed Income Asset Class. The reclassification of one fund manager of alternative investments is an example of how an asset class can be changed depending on the fund managers chosen to fill them. In 1995, the fund manager was hired to manage a portfolio of private debt and equity financing that included corporate buyouts and other specialized investments that are commonly classified as alternative investments. However, in 2000 the board reclassified the fund manager as a high yield bond fund and placed it in the domestic fixed income asset class. It's striking that the same investment could be considered appropriate for two such dissimilar asset classes.

Figure 9 shows the expected characteristics of the two asset classes based on the inputs to the 2000 asset allocation study. The alternative class is considered high risk, high return while the domestic fixed income class is low risk, low return. Furthermore, the quarterly returns produced by the two asset classes have a low correlation of just .20, showing that the two classes behave quite differently. The asset class inputs are important because they lead to the policy targets that were adopted by the board.

Figure 9. Fixed Income and Alternative Asset Classes Have Different Characteristics. The two classes are expected to perform very differently.

Asset Allocation Study Assumptions	Domestic Fixed Income	Alternative Investments
Expected Return	6.70%	11.50%
Projected Risk	5.50	36.00
Correlation Between Classes	.20	

Shortly after we questioned the fund manager's classification as a fixed income asset, the URS returned it to the alternative investments asset class. We agree that the fund manager belongs in the alternative class. Still, the fact that the same manager could be considered appropriate for either the domestic fixed income or the alternative investments asset class raises questions about how fund manager decisions are made. It appears that one reason the fund manager was reclassified as a domestic fixed income was because the alternative investment asset class was near the upper limit of its allocation range. Moving the fund manager to fixed income meant the URS would not need to rebalance the alternative asset class. While the illiquidity of alternatives makes rebalancing the portfolio difficult, it makes little sense to rebalance by moving a portion of its investments to another asset class where it is not well suited.

Fund managers who cross asset class boundaries may affect the fund's overall risk and return.

Fund Managers Cross Asset Class Boundaries. We identified some other examples where asset class composition may vary from policy benchmarks. For example,

- A domestic equity enhanced index fund manager invests in foreign currency markets.
- A domestic small/mid-equity fund manager also invested 20.5 percent of his allotted funds in large cap stocks and 16 percent in international equities.

The board should closely monitor the composition of each asset class because it can affect the overall risk to the fund. One of the board's investment objectives is to maintain a risk level commensurate with the total fund benchmark. Allowing funds earmarked for domestic

investments to be invested in foreign markets may affect the overall risk and return of the fund.

Asset Classes Must Be Periodically Rebalanced

Rebalancing back to policy targets maintains the optimal allocation.

After choosing a set of asset allocation targets, maintaining the allocation at those proportions is accomplished by periodically rebalancing the portfolio back to the policy targets. We found that URS staff has not followed a very disciplined approach to rebalancing. As a result, the fund has not routinely been brought back to the optimal allocation targets established by the board. The board's current investment policy stresses the importance of a disciplined rebalancing procedure:

> rebalancing is an essential part of an overall strategic asset allocation policy, which not only ensures an optimal risk structure for the portfolio, but also has been demonstrated to maximize long term performance. The contributing factor to performance comes from reducing an asset class which has undergone considerable price appreciation, and reallocating those funds into an asset class which has undergone a period of recent under-performance relative to the long term objectives of the Total Fund. Similarly, if an asset class falls below the established range, funds will be reallocated to bring the asset class within the range. The rebalancing discipline forces the Fund to sell assets with relatively high prices and purchase assets which have comparatively low prices.

Despite this policy statement, we found a number of times rebalancing did not routinely occur when asset classes exceeded or fell below their rebalancing ranges.

The portfolio was not rebalanced to the optimal allocation for long periods.

Portfolio Was Not Rebalanced to Optimal Allocation for Long Periods. During most months from 1992 through 2000, we found that one or more asset class was allowed to exceed or fall below the rebalancing range without rebalancing to policy targets.

For example, monthly allocation reports showed that the large-cap domestic equity account exceeded its policy range all of 1992 until April 1993. At the same time, international equity and real estate were below their range. A more recent example involved small-cap domestic equities which were reported as exceeding the range from June 1999 until October 2000. The allocation never was rebalanced back to the target.

Instead, after the new allocation study was completed in 2000, the large and small-cap equities were combined into one asset class.

Perhaps one reason that small cap equities were overweighted for many years is that the actual allocation was misreported to the board. Mid-cap equity fund managers were reported as part of the large cap instead of as part of the small cap asset class. The misreporting allowed small/mid cap equities to increase to 20 percent when the allocation target was only 7 percent. Although the consultants report was accurate, rebalancing decisions were based on internal reports. However, even when the error was rectified, the asset class was not rebalanced.

The effect of not rebalancing to policy targets can be significant. During the late 1990s when the URS had so much more small/mid-cap equities than the 7 percent called for in the board's asset allocation policy, these investments did not perform nearly as well as large cap stocks. We estimate that in 1998 returns would have increased by $270 million if domestic equity investments had been shifted from small/mid-cap to large cap stocks by rebalancing to policy targets.

Rebalancing Policy Should Be Strengthened. Current policy requires rebalancing at the end of each quarter but only to within the range rather than to target. This flexibility may allow staff to make allocation decisions based on their judgement about market opportunities and trends. For example, according to 1994 board minutes, the chief investment officer "concluded that the asset allocation should not be changed; however, shifts within established ranges to maximize potential returns should be implemented." As discussed in the next chapter, we think strategic investment decisions, such as to over or under weight a certain asset class, need to be controlled by the board. Furthermore, we believe that a more mechanical rebalancing policy should be followed. Specifically, we recommend that the board make the following changes:

A more mechanical rebalancing policy will help ensure that staff avoid using market timing as a basis for investment decisions.

- **Consider Rebalancing to Target.** Although it was not routinely followed until 2000, the board's policy did require rebalancing to target. It is unclear why the policy was changed, but most sources we consulted, including a URS consultant, recommend a policy of rebalancing asset classes back to the policy target, not merely to within the range. In addition, most of the eleven pension funds we contacted report that they rebalance an asset class back to the policy target. We found that other states' year end allocations tend to be very close to the policy targets that they had selected.

- **Consider an Annual Rebalancing.** According to *The Management of Investment Decisions*, ranges should be set to trigger rebalancing about twice a year. That type of schedule keeps the portfolio close to the optimal targets, while avoiding excessive transaction costs. The Government Finance Officers Association recommends that rebalancing "should be accomplished at the least annually." An annual rebalancing would return the portfolio to the optimal target even if ranges were not exceeded.

In summary, asset allocation has been shown to have a significant impact on returns. URS follows a reasonable process to select an optimal allocation, but they need to be more disciplined in maintaining the allocation. The following recommendations will help to assure a more disciplined approach to asset allocation.

Recommendations

1. We recommend that as asset allocation targets are evaluated, the Retirement Board consider:

   A. Optimal allocation policy targets separately from possible transition costs.
   B. Adopting policy targets for asset sub-classes.
   C. Reducing allocations to illiquid asset classes.

2. We recommend that the Retirement Board require staff to seek approval before changing asset allocation targets. For any change requested, we recommend that the board require a careful analysis that evaluates the potential effect of changes in relation to the entire portfolio.

3. We recommend that the Retirement Board monitor that the appropriate fund managers are selected to implement the allocation policy and that their investments comply with the objectives of the assigned asset class.

4. We recommend that the Retirement Board consider changing investment policy to require that the allocation be rebalanced to target percentages at least annually.

Chapter III
Board Can Provide Better Oversight of Strategic Risk

The Retirement Board should provide better oversight of the strategic decisions made by staff. A strategic decision is defined as an investment that moves the fund away from the policy benchmark described in the board's asset allocation policy. For the most part, the Utah Retirement Systems (URS) will achieve its long term goals by keeping each asset class as close as possible to these policy benchmarks. However, the board may decide market opportunities warrant strategic investments. For example, the board may choose to overweight the fund in a certain market sector or style.

Strategic decisions need oversight because they may affect the fund's risk and return objective.

The board needs to exercise caution when approving strategic investment decisions because they affect the fund's risk and return. This chapter provides examples of strategic decisions which have not received sufficient oversight from the board. Because strategic decisions may affect earnings by several hundred million dollars each year, the board must ensure that a prudent process is followed.

We recommend that, at least annually, the board formally review and approve any strategic investment decisions that staff may propose. The Government Finance Officers Association (GFOA) recommends that, in addition to its long-term asset allocation policy, "an investment plan should be developed and reviewed annually to establish the allocation of assets to the various investment styles or subclasses." Specifically, we believe the board should complete four steps before moving away from the asset allocation policy to pursue a strategic investment: (1) require staff to provide written analysis of the potential risks and benefits; (2) provide formal approval; (3) monitor the implementation; and, (4) evaluate the results.

Strategic Investments Require Board Oversight

As discussed in Chapter II, the primary focus of staff and board members should be on implementing the board's asset allocation policy. The allocation policy is designed to achieve the needed returns without

taking undue risks. Thus, any decision to move away from the allocation policy should require board oversight.

The board's investment policy statement (IPS) identifies a market index for each asset class (excluding alternative investments) that is used as the benchmark for evaluating performance. Figure 10 shows the benchmarks used for each asset class. Unless the board has made a strategic decision to move away from its allocation plan, the composition of URS' asset classes should correspond to those of its policy benchmarks indices.

A strategic decision is an investment that moves the fund away from the policy benchmark described in board policy.

Figure 10. URS Has Policy Benchmarks for Each Asset Class. The asset allocation plan include benchmarks indices (except for alternative investments) that define the expected asset composition.

Asset Class	Policy Benchmark
Domestic Equity	Russell 3000 Index
International Equity	MSCI All Country World Ex-US Index
Domestic Fixed Income	Lehman Aggregate Index
Global Fixed Income	Salomon World Government Bond Index
Real Estate	85% NCREIF and 15% NAREIT Indices
Alternative Investments	15% Nominal Return

At times, strategic investments may provide opportunities for additional gains even though they move an asset class away from its policy benchmark. For example, URS has overweighted its domestic equities asset class with stock from small and mid-sized companies and value-style stocks. Since strategic tilts change the fund's risk and return, the board needs to prudently manage strategic decisions.

URS Tilt Towards Small/Mid-cap, Value Stocks Is a Strategic Decision

The URS made a strategic decision to overweight or "tilt" its domestic equities towards small or mid-sized capitalization (small/mid-cap) stocks and value-style stocks. Small and mid-cap stocks are typically those for which the total worth of their outstanding shares is less than $3 billion. Value-style stocks are stocks that appear to be priced low when using

fundamental measures, such as the price to earnings ratio, to evaluate the stock price. By including more small/mid-cap and value-style stocks, the URS expects to increase its earnings. However, the tilt also increases the risk that the benchmark returns may not be achieved.

The Russell 3000 index is the benchmark for domestic equities. The index contains about 17 percent small/mid-cap stocks and is equally divided between value and growth styles. In contrast, as of December 2002, the URS domestic equities investments were about 31 percent small/mid-cap stocks and 57 percent value-style.

The URS has decided to overweight its U.S. equity investments with small/mid-cap stocks and value-style stocks.

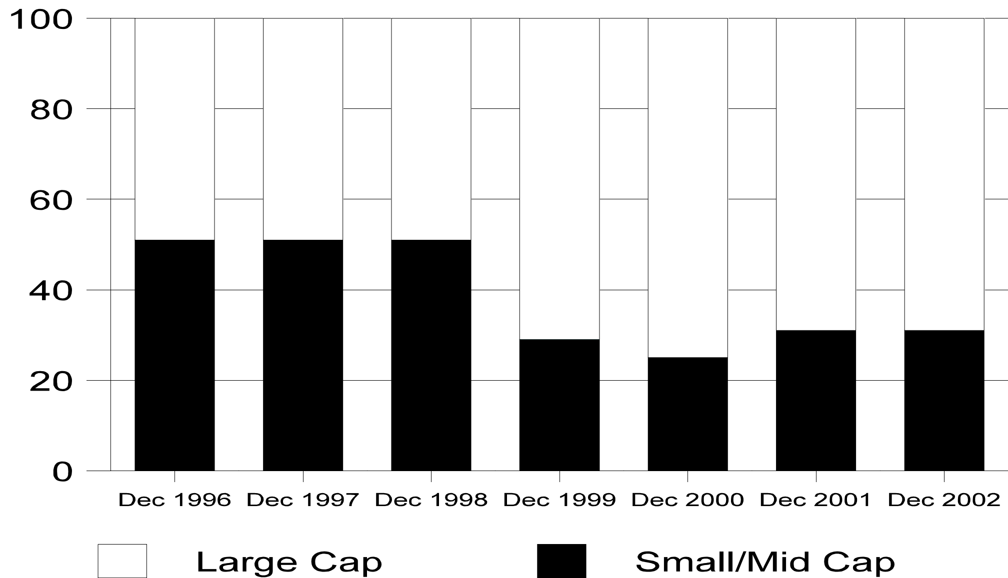
Figure 11. URS December 2002 Allocation in Domestic Equities. Domestic equities are tilted towards small/mid-cap and value stocks.

	Policy Benchmark (Russell 3000)	URS Domestic Equities	Tilts
Value	50%	57%	7% Value Tilt
Growth	50	43	
Large Cap	83	69	
Small/mid Cap	17	31	14% Small/mid Tilt

Figure 11 shows that URS has made a strategic decision to overweight value and small/mid-cap stocks compared to the class benchmark.

Since 1994, the URS has followed a strategy of over weighting the retirement fund with small/mid-cap and value stocks. Figure 12 shows how the size of the small/mid-cap tilt has varied. It should be noted that policy benchmarks are sometimes changed. Before 2000, URS had a policy requiring an allocation of 20 percent small/mid-cap and 80 percent large cap in the domestic equity portfolio.

Figure 12. URS Had a Large Tilt Towards Small/Mid-cap Managers From 1996 to 1998. Investing 50 percent of the domestic equity fund in small/mid-cap equity managers was a tilt because the policy benchmark at that time called for an allocation of only 20 percent small/mid-cap stocks.



As much as 50 percent of the domestic equities were invested in small and mid-cap stocks when the policy called for only 20 percent.

Figure 12 shows that from 1996 to 1998 as much as 50 percent of the domestic equities were invested in small and mid-cap stocks. The URS investment policy called for only 20 percent. Since 1999 the URS has had a more modest tilt towards small/mid-cap stocks but has still held more than the 17 percent called for by its current policy benchmark, the Russell 3000. The tilt towards value-style stocks also changed from year to year. The year with the largest tilt towards value stocks was in 1998 when the URS had six fund managers who specialized in value-style investing and only one growth-style manager.

Strategic Tilts Have Large Effect on Returns. The tilts that are applied to the retirement fund can have a significant effect on its ability to achieve its performance objectives. Figure 13 shows the difference between the actual return on investment for the domestic equities asset class and the market benchmark. It shows that during some years the domestic equities asset class produced returns that were far below what would have been achieved if the fund mirrored the broad market index. Other years performance exceeded the benchmark.

Figure 13. URS Domestic Equity Returns Vary Widely from the Policy Benchmark. Strategic tilts such as value and small/mid-cap equity tilts can have a large effect on investment earnings.

Year	URS Actual Return on Investment (with tilts)*	Benchmark Return on Investment (without tilts)	Gains (Loss) due to Strategic Investments*	Effect on Asset class (since prior year)
1996	22.7%	21.7%	1.1%	$ 31,000,000
1997	29.4	31.2	(1.8)	(63,000,000)
1998	11.7	21.9	(10.2)	(423,000,000)
1999	20.2	21.3	(1.1)	(43,000,000)
2000	(1.6)	(7.2)	5.6	268,000,000
2001	(5.7)	(11.5)	5.8	293,000,000
2002	(19.7)	(21.5)	1.9	97,000,000
			Sum:	**$ 160,000,000**

** Note: Also includes manager effect.*

Tilts should be controlled and monitored by the board because they can significantly affect investment returns.

Figure 13 shows our estimate of the effect that tilts have had on the domestic equities asset class. During the late 1990s the greatest returns were realized by the large cap and growth stocks. For example, in 1998, because the URS was tilted towards small/mid-cap and value stocks, the URS investment in domestic equities produced 11.7 percent returns when the broader market achieved 21.9 percent. As a result, the asset class produced $423 million less that year than it would have if the URS followed a purely passive style of investing that mirrored the market index as a whole. During the period from 1996 to the middle of 1999, when the small cap and value tilt was greatest, the fund earned $498 million less than it would have if the fund had been more balanced.

During 1999 the URS began to reduce its tilt towards small cap stocks and value style stocks. As a result, during the period from 2000 to 2002, the fund did not have as great of a tilt towards small cap and value stocks as it did in prior years. Even so, the slight tilt towards value and small/mid-cap stocks during the period from 2000 to 2002 helped the fund outperform its benchmark because the value and small/mid cap sectors performed better than the growth stocks and large-cap stocks during those years. As a result, from 2000 to 2002 the fund outperformed its benchmark by $658 million over three years.

In all, the domestic equities account appears to have increased by about $160 million over its benchmark during the period described in Figure 13. On the other hand, the gains and losses produced by the tilt strategy could have been greater or smaller depending on the approach used to periodically rebalance the fund. Because such analysis is complex and requires that many assumptions be made, we could not accurately determine the combined effect of a tilt strategy combined with periodic rebalancing.

The main purpose for presenting the above information is to show the dramatic effect that a tilt strategy can have on investment returns. For this reason it is essential that the board control and monitor strategic investment decisions. The following describes several other strategic tilts that the URS has placed on the fund.

Strategic Decisions to Overweight Individual Sectors

In addition to its domestic equity small/mid-cap and value tilt strategy, the URS has made several other strategic decisions to overweight the fund in certain market sectors and styles. The URS has invested heavily in emerging markets, has made strategic real estate investments and has most recently decided to emphasize small/mid-cap international stocks.

The retirement fund has a slight tilt towards developing countries known as the emerging markets.

Emerging Markets. The URS has also overweighted its investment in the emerging markets which are developing countries such as those in Southeast Asia and Eastern Europe. At the end of 2002, the URS had 16 percent of its international stock portfolio invested with fund managers who specialize in the emerging markets. In contrast, only 8.6 percent of the policy benchmark for international stocks is in emerging markets. Thus, the retirement fund has a slight tilt towards the emerging markets. In dollar terms, the URS has invested $146 million in emerging markets or the undeveloped world economies that otherwise would have been invested in the stock markets of the developed world economies.

In the past the retirement fund has had an even greater tilt towards the emerging markets than it currently does. For example, in 1997, 35 percent of the URS investment in international equities consisted of fund managers specializing in the emerging markets. At the time, the benchmark for international equities was the Morgan Stanley Capital International EAFE Index Non-US (MSCI EAFE). The MSCI EAFE is essentially an index for the developed world economies and contains little,

if any, exposure to the emerging markets. By investing 35 percent of its international stock portfolio in the emerging markets, the URS made a significant departure from its policy benchmark.

Although investments in the emerging markets present greater risk than those in the developed world, the tilt towards emerging markets has achieved modest success when compared to its benchmark. Since 1994, when the URS began to invest in the emerging markets, the URS international equities have increased by 2.8 percent a year while the benchmark index has achieved a slightly lower return of 2.1%. It appears that strategy to invest in the emerging markets has not hurt the overall returns of the international equities account. In fact, it may have helped the asset class beat its benchmark. At the same time, however, the strategy has increased the volatility of the returns. In 1999 the URS international portfolio achieved 43.1 percent return on investment, but in 2000 it lost 21.1 percent.

Our main concern is that the strategy to invest in emerging markets lacked formal oversight by the board. Beginning in 1994, the URS staff advocated that a large portion of the international equities asset class be invested in emerging foreign markets. However, we found little evidence that the board formally approved the strategy or set limits on the amount of funds to be invested in the emerging markets sector. While the board appears to have been aware of the commitment to the emerging markets, this commitment is not reflected in the board's asset allocation studies or in the board's Investment Policy Statement.

Real estate investments includes more leverage and opportunistic ventures than the policy benchmark.

Real Estate Portfolio. The URS has also made two strategic decisions with regard to its real estate portfolio. First, it has decided to carry more debt against its real estate investments than the amount reflected in the policy benchmark. For many of the real estate holdings in the URS real estate asset class, the URS actually owns only a portion of the investment, relying on debt to cover the remaining cost of its holdings. This use of debt is commonly used to increase or "leverage" the earnings of a real estate investment, but it also increases the risk of the investment. As of December 2002, 42 percent of the URS real estate portfolio was leveraged when only 25 percent of the policy benchmark is leveraged.

A second strategic decision has been made to invest heavily in opportunistic ventures in real estate. The policy benchmark that URS

uses for its real estate portfolio does not reflect any exposure to this high risk, highly leveraged approach to real estate investing.

Because of the differences in the level of debt and the investments in opportunistic funds, the URS is pursuing an investment strategy that moves the real estate asset class away from its policy benchmark. The result is that the asset class has the potential for much greater returns than would be expected from an asset class that mirrors the policy benchmark. However, the strategy also increases the risk that the asset class will underperform its policy benchmark. During the past three years, the URS real estate portfolio has generated returns that were approximately the same as those of its policy benchmark.

International equities appear to include a greater exposure to the small/mid-cap sector than the policy benchmark.

Small/Mid-cap International Equities. The URS has recently decided to apply a small cap tilt to its international stock portfolio. In September 2002, the board approved the hiring of two fund managers who specialize in small-cap international stocks. The proposal represents a shift away from the current policy benchmark, the MSCI All Country World Ex-US Index, which contains about nine percent small cap stocks. By adding two fund managers who specialize in small cap international stocks, the fund's exposure to the small cap sector appears to have increased beyond the amount called for by the benchmark. Although the recommendation was supported by URS staff and a representative from Callan Associates, the board was provided with little analysis to describe how the tilt strategy might affect the fund's level of risk and return. In our view, the board should have been provided with more information before approving a strategy that could significantly alter the performance of the international equities asset class.

Board Oversight of Strategic Investments Is Needed

The Retirement Board needs to assume greater responsibility for the systems' strategic investments. In the past, the investment staff have been responsible for making most strategic investment decisions and have received little formal oversight from the board. However, because strategic tilts can move the fund away from its policy benchmarks, it is appropriate that the board oversee such decisions. We have identified four steps that the board should take whenever implementing a strategic investment decision. In addition, we believe that the URS should use its

annual retreat to prepare an annual review of its strategic investments and to prepare an investment plan for the coming year. Preparing such a plan could help improve the implementation of strategic decisions in all asset classes and provide important documentation of the board's oversight.

Managing strategic investment risks requires evaluating the benefits of each strategic decision.

Four Steps to Manage the Risks Of Strategic Investments

According to the Association of Public Pension Fund Auditors (APPFA), most state pension plans accept the increased risk of moving away from the policy targets. They report that—

> Despite the risk involved in moving away from policy benchmarks, most systems do take actions to deviate from the policy for the simple reason that they believe the rewards of achieving incremental return exceed the incremental risk of performing below benchmark returns.

The key, according to the APPFA, is to manage those risks so that returns from investments can be increased while minimizing the increase in risk taken. The APPFA literature and our consultant helped us identify four steps to manage strategic investments and provide the board information needed to evaluate the benefits of each strategic investment.

A four-step oversight process will help the board manage its strategic decisions.

1. **Prepare Analysis of the Strategy.** Staff should provide the board a written analysis describing the nature of the investment, the risks involved, and the extent that the strategy moves the asset class away from its benchmark. The staff should also demonstrate how the strategy is expected to increase returns. Strategic investment proposals should not be evaluated in isolation but based on how the proposed strategy will affect the risk and return profile of the entire fund.

2. **Receive Formal Board Approval.** Staff should obtain formal board approval before implementing strategic investments. Since the board's asset allocation policy establishes the investment plan for the fund, any investment strategy that moves the fund away from that policy should also have board authorization. The board minutes should document the information considered by the board and the expectations the board has for the strategic investment it approves.

3. **Verify Implementation.** If a strategic investment is not implemented according to plan or is not implemented in a timely fashion, it may increase the risk to the fund. The board should require staff to periodically demonstrate that their strategic investments are being implemented according to plan and within the time frame established by the board.

4. **Evaluate Performance.** The board should evaluate the success of the strategic investment decisions. The success of an investment strategy can be evaluated by comparing the actual returns of the portfolio to the returns that would have been achieved if the asset class were fully invested in the policy benchmark.

Following these four steps for each strategic investment can help the board prudently manage the fund. The steps can be routinely completed as part of an annual investment plan as recommended by GFOA "to establish the allocation of assets to the various investment styles or subclasses." As fund trustees, it is the board's responsibility to make sure the fund is invested properly. The process of updating and approving the plan each year would provide good assurance and documentation that the board is prudently directing and controlling strategic investments.

In conclusion, it is appropriate for the URS to make strategic investments as long as they receive proper oversight. Since the board's asset allocation targets are designed to manage the risk and return of the fund, strategic investments should be evaluated in context of the asset allocation policy. We suggest that the Retirement Board routinely review all existing and planned strategic investments during its annual fall retreat and apply the four-step process described in this chapter.

Recommendations

1. We recommend that the Retirement Board develop and annually review a strategic investment plan to establish the allocation of assets to the various investment styles or subclasses. The plan should be formally amended as necessary and should address the degree to which each asset class may be tilted away from its policy benchmark.

2. We recommend that the Retirement Board require the following steps to be completed whenever an investment is made that draws the fund away from its underlying policy benchmark.

   A. Prepare a written analysis of the strategy's risks and benefits for the board's review.

   B. Obtain formal board approval of the investment strategy before it is implemented.

   C. Monitor the implementation of the investment strategy to make sure that it is done according to the plan approved by the board.

   D. Evaluate the performance of the investment strategy against the performance of the policy benchmark.

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Chapter IV
Improved Oversight of Alternative Investments Is Needed

Alternative investments are complex and volatile and thus require greater oversight than other types of investments.

The Utah Retirement Systems (URS) needs to provide greater oversight of its investments in venture capital, corporate buyouts and other private financing. Collectively, these investments form an asset class called "alternative investments." Although alternative investments present the opportunity for high returns, it is also the most volatile asset class and presents the greatest risk of poor performance. Furthermore, alternative investments are usually more complex and difficult to understand than traditional investments in stocks and bonds. Alternative investments are also illiquid and are difficult to value. For these reasons, alternative investments require greater care and supervision than other investments.

We believe the Retirement Board should reconsider its reliance on outside consultants and external managers to control and monitor alternative investments. This chapter describes several areas that the board and staff should address in an effort to improve the URS' internal oversight of alternative investments. The areas of concern we found with alternative investments include: (1) policies, (2) performance monitoring, (3) conflicts of interest, and (4) in-house staff resources.

Alternative Investments Require Prudence and Care

Alternative investments can be very complex and difficult to understand. Each investment represents a unique financial agreement between a company seeking special financing and its investors. These investments typically include privately placed equity and debt securities and often require a long-term commitment of funds. To compensate for these challenges, investors expect to be rewarded with higher returns than are offered by traditional equity and debt investments.

The URS invests about 7 percent of the retirement fund in the alternative investments asset class. Figure 14 shows that as of December 2002, almost $800 million was invested through three managers.

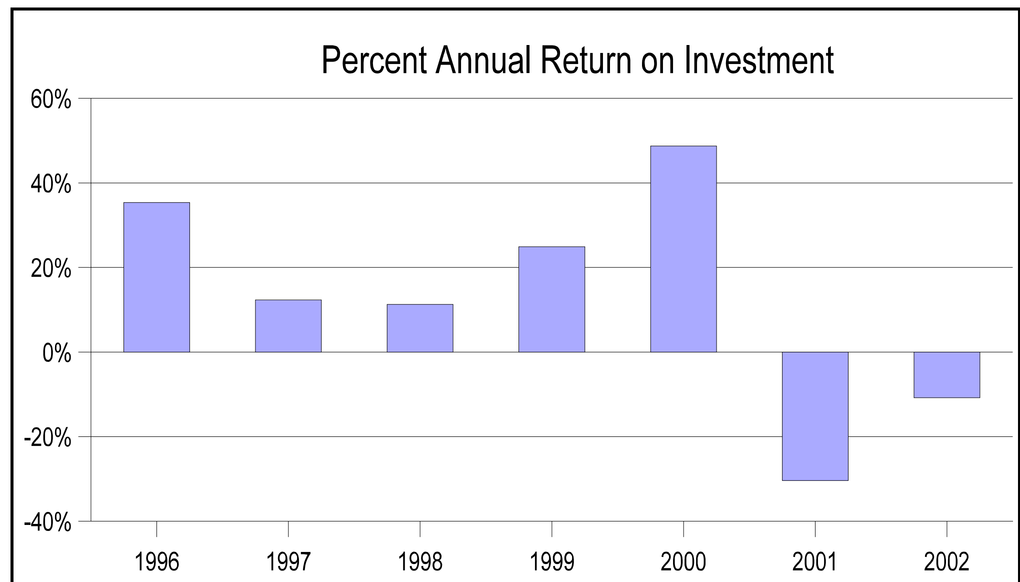
Figure 14. URS Alternative Investments December 31, 2002. The URS invests with three fund managers of alternative investments.

Fund Manager	Allocation	Percent of Alternative
Fund Manager A	$554,000,000	70%
Fund Manager B	217,000,000	27
Fund Manager C Management	25,000,000	3
Total Investments	$795,000,000	
Percent of Total Fund	**6.9%**	

About seven percent of the fund is invested in alternative investments.

The three external fund managers of alternative investments have slightly different approaches to investing. Fund Manager B invests directly with firms who require private financing. Fund Manager A and Fund Manager C do not make direct investments but invest in limited partnerships that specialize in creating portfolios of venture capital or leveraged buyouts. Figure 15 shows that URS' returns for the asset class have been volatile.

Figure 15. Returns for Alternative Investments Are Volatile. Annual returns have been as high as 49 percent and as low as minus 30 percent.



The high level of volatility associated with alternative investments means that the value of asset class can shift by several hundred million dollars in a single year. The volatility reflects the higher risk associated with alternative investments that can provide very large gains or significant losses. Because of the high risk involved, the board and staff must closely monitor and control these investments.

Public pension funds must use prudence and care when investing in alternative investments.

Controls Recommended by GFOA. The Government Finance Officers Association (GFOA) recommends "extreme prudence and care in the use of alternative investments in public pension portfolios." Similarly, a URS consultant warns that "fiduciary standards of appropriateness and care need to be employed even more exactingly in the area of alternative investments..." than with other investments. Figure 16 lists the strategic elements that GFOA recommends for those responsible for alternative investments.

Figure 16. Alternative Investments Require a Clear Strategy. The GFOA recommends that public pension funds have strategic elements in place when investing in alternative investments.

An alternative investment strategy should be based on:

1. Sound investment policies and objectives that address the unique return and risk characteristics of alternatives and establish prudent limits in the strategic plan.

2. Clear articulation of the investment's economic rationale and the overall importance of the specific investment in the marketplace as well as in the portfolio.

3. The plan's organizational resources in terms of staffing, culture and managerial discipline, and the plan's ability to measure and monitor performance, risks and costs.

4. Expanded due diligence efforts by plan trustees, fiduciaries and staff.

5. Development of appropriate benchmarks for comparison of returns and risk and review of investment performance through industry cyclical downturns or bear markets.

6. Review of the plan's liquidity needs with the actuary to determine if the investment cash flows are adequate—because many alternatives provide little or no cash flows prior to maturity.

7. Selection of a manager or general partner whose experience and ability enables him to carry out the difficult task of measuring and comparing returns on investments, this selection being as important as the returns themselves.

8. Construction of alternative portfolios over time, with staggered start dates and/or investment periods to smooth the maturity, returns, and cash flows to further mitigate the risks.

Source: Government Finance Officers Association

Alternative investments require more oversight than other asset classes.

While we did not attempt to evaluate each of the above elements, our review shows that the URS can exercise greater care in its use of alternative investments. In fact, we found URS staff had difficulty answering many of our questions regarding the systems' alternative investments. This chapter describes four areas in which the board can

improve its oversight of the asset class. With respect to alternative investments, the URS should:

- Improve policies
- Review how performance is monitored
- Examine how conflicts of interest are controlled
- Evaluate adequacy of in-house resources

Improve Alternative Investments Policies

The objectives and economic rationale for alternative investments must be clearly stated.

The investment policies and objectives for alternative investments need to provide greater detail regarding the board's goals for the asset class and place limits on the amount invested and type of investments allowed. Because the board has not provided adequate policy guidance, it has been the staff and not the board who has established guidelines and restrictions for alternative investments through the contracts they sign with outside fund managers who invest and monitor the systems' alternative investments. Given the fund's relatively large exposure to alternative investments, we recommend that the board clearly articulate the objectives and economic rationale for the amount invested in the asset class.

IPS Provides Little Guidance for Alternative Investments

The Investment Policy Statement (IPS) is the board's primary tool for controlling the level of risk and return to which the fund is exposed. However, the IPS provides little guidance to URS staff and fund managers for alternative investments. The IPS only contained the following statement regarding alternative investments:

1. The following are acceptable vehicles for alternative investments:
    - Private equity limited partnerships that are commingled.
    - Separate account private equity limited partnerships.

2. Diversification Parameters:
    - Alternative investments shall be diversified by strategy, industry, time and security type.

Current policy provides little guidance in the area of alternative investments.

These statements provide little guidance regarding the objectives and restrictions for alternative investments. Furthermore, unlike other asset classes, there are no specific guidelines included in the appendices to the IPS. Considering the risk associated with the asset class, the board needs to provide more policy guidance than it has.

After we asked about the adequacy of board policy for alternative investments, the IPS was amended to state that "additional alternative investment guidelines are contained in a separate alternative investment policy and guidelines document." Still, there is no document with that title, and we could not find any separate alternative investment policies adopted by the board. The new IPS language may refer to contract requirements that are adopted by staff without board action.

Staff Set Alternatives Requirements by Contract

Manager contracts provide some guidance, but staff may change restrictions without board approval.

As we reviewed alternative investments, we encountered several different documents that we initially thought were board policies, but apparently they are more appropriately described as staff procedures. Specifically, we obtained the following documents:

- Utah Retirement Systems Direct Investment Separate Account Policies and Procedures (Effective date November 20, 1995)
- Utah Retirement Systems Private Equity Partnerships Portfolio Policies and Procedures (Effective March 2002)
- Utah Retirement Systems Co-Investment Separate Account Policies and Procedures (Effective December 10, 1997; revised January 9, 2001)

Although the above documents are called URS Policies and Procedures, they are established solely through the manager contracts signed by the Chief Investment Officer (CIO). These documents do provide some needed guidance and restrictions for the fund managers of alternative investments. However, since staff are able to change contracts on their own, they also have the ability to change the restrictions placed on fund managers without board approval.

For example, one of the above documents provided the following guideline that was later changed by staff. The document states that "The Staff and Consultant review the Tactical Plan, submit comments, and recommend Board approval of the finalized plan." During our review of the board minutes, however, we found nothing to indicate that this requirement was ever fulfilled. The annual tactical plans were not presented to the board for approval. At some point in time, staff changed the requirement so that the annual tactical plan approval is by staff and not the board.

In summary, alternatives are complex and risky investments that require a high level of board oversight. Instead of relying on staff discretion to

control these risky investments, the board should develop clear objectives and establish adequate alternative investment policies.

Amount Allocated Should Be Based On Economic Rationale

The GFOA also states that the board should "establish prudent limits" on alternative investments and provide a "clear articulation of the investment's economic rationale and the overall importance of the specific investment in the marketplace as well as in the portfolio." In 1995, the board increased its alternative asset allocation target above the level recommended by its consultant and, since then, URS has maintained a preference for that asset class. Because it is a risky asset class, we recommend that the board more clearly articulate the economic rationale for its allocation to alternative investments.

The 1994 asset allocation study recommended a 5 percent allocation to alternative investments. Although the board adopted that amount in its investment policy, the next year URS staff recommended that the policy target for alternatives be increased to 7 percent. According to board minutes, the rationale for the increase was:

> a 5% target is unlikely to have a meaningful impact on the Fund's performance. A 7% target would give alternative assets the same weighting as small cap stocks in the portfolio. Staff believes that a 7% weighting is a minimum number that can be significant to portfolio performance.

The URS has held more alternative investments than its peers but has not clearly justified the higher allocation.

In our view, this is not sufficient justification for increasing the allocation to a high risk asset class. Furthermore, during the next two asset allocation studies conducted in 1997 and 2000, the board chose to maintain the allocation level established in prior years. According to its consultant, URS' policy target of 7 percent is relatively high compared to other pension funds.

Furthermore, the consultant warns that "For those Plan Sponsors who choose to diverge from their peers, it is important to understand and be able to justify why the decision was made." Although the URS has traditionally held more alternative investments than its peers, we found little evidence that the URS has clearly justified its higher allocation. We recommend that the board reexamine its target allocation to alternative investments and clearly articulate the rationale behind the policy target selected. The board should also recognize that a lack of liquidity may make it difficult for the URS to sell off a portion of its alternative investments if it becomes necessary to rebalance the fund.

Review Performance Monitoring

The board should review how they monitor fund manager performance. One of the challenges of investing in alternative investments is that it is difficult to measure performance. The lack of a public market for the securities leads to two problems: (1) asset values are difficult to identify, and (2) good performance benchmarks are not readily available. These concerns help illustrate why an increased level of oversight and monitoring of alternative investments is necessary.

Asset Values Are Difficult to Identify

Monitoring alternative performance is challenging because asset values are based on estimates and are difficult to identify.

The lack of reliable information regarding the value of an investment is one of the major risks associated with the asset class. Self-reported values may be inaccurate and are potentially subject to bias. Inconsistent valuations make performance monitoring difficult.

Values Are Estimated by Fund Managers. Because alternative investments are privately placed investments, there is no pricing mechanism, such as a market exchange, that can be used to identify the value of the investment. Instead, the accepted industry practice is for those who manage such investments to also report the value of the investments. The following statement was made by the independent auditors who examined the URS partnership with one URS fund manager of alternative investments. It describes the concern with a self-reported valuation.

> The financial statements include investments whose values, in the absence of readily ascertainable market values, have been estimated by the Managing General Partners. Investments in securities are valued initially at cost, with subsequent adjustments to values which reflect meaningful third-party transactions, or to fair market value as determined by the Managing General Partners. However, because of the inherent uncertainty of valuation, those estimated values may differ significantly from the values that would have been used had a ready market for the investments existed, and the differences could be material.

Because the annual valuations estimated by venture capital firms may be unreliable, the real performance of each investment cannot be determined until the investment is liquidated years later.

Some venture capital firms reported different values for the same investment.

Assets May Be Valued Inconsistently. We found that different venture capital firms sometimes report inconsistent values for the same

companies in which they invest. Figure 17 describes one extreme case that was recently presented to the Retirement Board.

Figure 17. Asset Values Are Inconsistent. Three different venture capital firms have invested URS funds in the same company. Each reported a different value for their investment.

Venture Capital Firm	Cost	Estimated Value	Ratio of Value to Cost
Firm X	$27,978,000	$27,978,000	1.0
Firm Y	8,510,000	2,380,000	0.3
Firm Z	22,642,000	0	0.0

This example shows the amount of URS funds invested by three separate venture capital firms. However, each firm estimated the value of their investment differently. One venture capital firm valued the investment at its original cost, a second firm valued it at 30 percent of cost, and a third firm reports the investment at a total loss. This suggests that the URS can not rely too heavily on this type of self-reported performance data.

Monitoring Investment Performance Is Difficult. The lack of reliable alternative asset values also makes it difficult to periodically measure a fund manager's performance. The return on investment of public equity and bond managers can be easily measured each quarter or year because market values are readily available. The returns on alternative investments, however, are not easily measured because there is no market price for alternative investments. In fact, some investments may be listed at cost for many years without having their value updated.

For example, a March 2002 performance report for one private equity fund indicated that 42 percent of the funds invested were listed at the original cost of the investment even though the fund had been active for over two years. If they perform as expected, some of the investments will eventually return much more than the amount invested. However, some investments described in the report were considered "threatened" by the fund manager and by URS staff and were, therefore, at risk of a significant loss of investment. Yet, this threatened status was not disclosed in the performance reports so the board might be made aware that some of the investments could result in a large loss.

The Periodic Return on Investment Is Not the Best Performance Indicator for Private Equity. Because of the valuation difficulties, there are weaknesses in relying on the periodic return on investment as the measure of alternative investment performance. A better measure of performance would be the internal rate of return achieved after the investment is completed. However, it is not practical for the board to use an internal rate of return to monitor alternative investments when all other investments are measured in terms of the quarterly and annual rate of return. The board could partially address the valuation problems of its alternative investments by increasing the staff resources devoted to monitoring these assets.

URS Needs a Better Benchmark to Evaluate Performance

We question the use of a flat 15 percent return on investment as the benchmark for the alternative investments.

In addition to the difficulty of measuring a fund manager returns, the URS needs to develop better benchmarks for evaluating the performance of its alternative investments. As shown in Figure 16, it is important to use "appropriate benchmarks for comparison of returns and risk, and review of investment performance through industry cyclical downturns or bear markets." We question the use of a flat 15 percent return on investment as the benchmark for the alternative asset class as a whole. In addition, the use of a high yield bond index as the benchmark for the fund manager's performance also appears inappropriate.

Currently, the URS relies on a benchmark of 15 percent return for the alternative investments asset class. While this may be an appropriate long-term goal, it doesn't provide a very meaningful gauge of the short-term performance of alternative assets. Although alternatives have the greatest volatility of any investment class, the 15 percent benchmark does not offer a valid comparison to the current investment environment. In fact, besides being of little use to measure the current performance of alternative investments, it also distorts the effectiveness of the Total Fund Policy Benchmark used to evaluate total fund returns.

We recommend that the board consider adopting a market-based benchmark for its alternative investments. For example, some states rely on an equity index plus a premium. Other states compare their funds to the Venture Economics universe data which estimates the performance of venture capital investments from each vintage year. URS investment department staff recently told us they have asked the board to consider using an equity index plus a premium as the benchmark.

Manager Benchmark Is Questionable. We also question the use of a high yield bond index to monitor the performance of a fund manager of alternative investments. As mentioned in Chapter II, one fund manager

of alternative investments was transferred to the domestic fixed income asset class. When this transfer occurred the URS began to require that a new policy benchmark be applied to the fund manager – the Merrill Lynch High Yield Cash Pay Index. However, during the years since the new benchmark was applied, the fund manager has performed quite differently from the benchmark. In fact, there is a negative .19 correlation between the fund manager's returns and the benchmark. A negative correlation means that the returns generated by the fund manager move in the opposite direction as those achieved by the benchmark. The negative correlation also suggests that the benchmark may not be an adequate gauge of performance. In fact, the URS internal auditors also determined that the high yield bond index "may not be an adequate benchmark" and recommended that another benchmark be applied to the fund. Even so, the URS continues to use the Merrill Lynch High Yield Cash Pay Index as the benchmark for the fund manager.

Examine Conflict of Interest Controls

Potential conflicts of interest need to be carefully monitored and controlled.

The board should examine how they control fund managers' potential conflicts of interest. When managers face situations which may present a conflict of interest, they may not protect the interests of the URS, reducing the fund's return on investment. URS has adopted a conflict of interest policy that requires all fiduciaries, including fund managers, to work "for the sole interest of the systems' participants and their beneficiaries." However, some types of alternative investments may involve conflicts of interest as an integral part of the investment strategy. In fact, one URS contract with a fund manager of alternative investments acknowledges a variety of potential conflicts that may prevent the fund manager from acting in the sole interest of the URS. Although the URS has tried to control these conflicts of interest by placing restrictions on related-party transactions, in some cases the restrictions have either been changed or have been poorly enforced. The following sections of the report describe our concerns related to this one particular fund manager.

Manager Contract Acknowledges Possible Conflicts

Some of the investments made by one manager of alternative investments demonstrate why URS needs to closely monitor conflicts of interest. The contract between URS and the fund manager was created as a partnership, hereafter referred to as the "URS Partnership." As a limited partner, URS provides major funding but does not have management responsibilities. As the general partner, the fund manager provides some funds and manages the partnership. Since the fund manager has other affiliates and subsidiaries besides the URS Partnership,

conflicts of interest may arise whenever there is a transaction between any of the fund manager's corporate affiliates and the URS Partnership. For example, fees paid by the URS Partnership to the fund manager's affiliates could indirectly benefit the fund manager at the expense of URS.

One fund manager acknowledges several potential conflicts.

In the URS Partnership contract, the fund manager acknowledges that "as an investment banking firm, [the fund manager] and its affiliates engage in activities which may conflict with the interests of the Partnership and its Limited Partner." The potential conflicts listed in the contract include:

- **Brokerage Fees.** The fund manager or its affiliates are authorized to act as a broker for both the URS Partnership and another entity on the other side of the transaction. They "may receive commissions from and have a potentially conflicting division of loyalties and responsibilities regarding both parties."

- **Investment Banking Fees.** The fund manager's "Investment Banking Group" is expected to receive investment banking fees from other parties engaged in transactions in which the URS Partnership also invests.

- **Investments in Portfolio Companies.** The fund manager may invest URS Partnership funds in companies in which affiliates of the fund manager also invest.

While the URS contract with its fund manager acknowledges the existence of potential conflicts of interest, the following describes specific investments made by the fund manager for the URS Partnership that may present conflicts of interest and that have not received sufficient oversight from the URS.

Many Investments Involve Possible Conflicts of Interest

In addition to managing the URS Partnership, the fund manager also manages several other investment portfolios and provides a broad range of investment banking services to corporate clients other than the URS. Each of these investment banking units within the larger firm may also be participating in joint investments with the URS Partnership. These affiliated transactions present a potential conflict of interest. Furthermore, in the year 2000, the fund manager was purchased by a major investment banking firm. As a result, any transaction between the URS Partnership and the units within the investment banking firm also raises conflict of interest concerns. The following describes several investments in which funds from the URS Partnership involved transactions with other affiliates of the fund manager.

Several transactions raise concerns about conflicts of interest.

- **Funds Invested in a Corporation Owned by the Fund Manager's Merchant Banking Unit.** The URS Partnership invested $25 million in a corporation owned by the fund manager's merchant banking unit, which operates another private equity fund within the fund manager's organization.

- **Funds Invested in a Client of the Fund Managers's Investment Banking Unit.** In 1996, the fund manager's investment banking unit was hired by the owner of a corporation to restructure and sell the company. The URS Partnership purchased $22.6 million in the company's stock as part of the company's financial restructuring.

- **Funds Invested in a Corporation Owned by Affiliates of the URS Fund Manager.** In 1999, the fund manager and several of its affiliates were involved in a corporate buyout and restructuring of a corporation. The URS Partnership invested $26 million in preferred stock while the fund manager's merchant banking unit purchased $65 million in common stock. Together the fund manager and its affiliates owned over 62 percent of the company's stock.

- **Funds Invested Used in a Buyout Led by the Fund Manager's Merchant Bank.** In 1998, the fund manager's merchant banking unit led a $471 million corporate buyout and restructuring of a corporation. Of that amount $35 million came from the URS Partnership and the remainder came from other affiliates of the fund manager.

Because the fund manager makes the investment decisions for the URS Partnership, all investments with the fund manager's affiliated companies raise a question. Were the sole interests of the URS Partnership the motivation behind the investment decision, or were the larger interests of the fund manager's parent company and its affiliates a factor? The purchase of one corporation (the fourth example mentioned above) demonstrates how the fund manager's affiliates can reap some benefit from a deal in which they and the URS lose money. Although both the URS and the fund manager lost the entire $35 Million invested in the deal, the transaction still produced $15.6 million in fees for the fund manager and its affiliates.

Board Should Review Conflict of Interest Restrictions

The board needs to determine whether the type of related party transactions described above are consistent with the URS conflict of interest policies. Because staff has done little monitoring of the fund manager's investments and it's not clear what restrictions apply, we're not

sure if the investments comply with policy. However, we did find that existing contract provisions were not well enforced. The board should review existing conflict of interest controls and ensure that the fund's interests are protected.

Staff relaxed contract restrictions controlling conflicts of interest.

The URS has had contract provisions that tried to control conflicts of interest by limiting related party transactions. The fund manager contract states that if an investment involved an affiliate of the fund manager, the "systems' investment in a security must be no greater than a 50 percent position in which the remaining 50 percent investment is negotiated at arms' length by an independent institutional investor." The contract also required that "no more than three such investments" could be held at any given time. Staff agreed to relax the restrictions by reducing to 20 percent the amount that must be placed with an independent investor and increasing to six the number of investments allowed at one time.

Contract provisions requiring disclosure reports have not been enforced.

Another contract provision requiring disclosure of related party transactions also has not been enforced. The fund manager was required to disclose any "relationship or transaction and the amount involved of all transactions" with an affiliate or related party. We found that the disclosure reports had not been submitted for at least two years. At our request, the fund manager provided the reports, but they appear to be incomplete. We found a few related-party transactions that were reported in filings with the Securities and Exchange Commission (SEC) that were not disclosed in the reports to the URS.

We recommend that the board examine the conflicts of interest of the fund managers of its alternative investments in general and those of the fund manager specifically. The board may need to require additional controls and an independent staff review of certain transactions to verify that URS interests are protected and that contract provisions are enforced.

Evaluate Adequacy of In-house Resources Devoted to Alternative Investments

The Retirement Board should consider whether additional in-house monitoring and supervision are needed for its alternative investments asset class. According to the GFOA, an important consideration with alternative investments is the systems' "organizational resources in terms of staffing, culture and managerial discipline. . ." We became concerned about the level of URS staff resources because we found it very difficult to get answers to many of our questions about URS' alternative investments.

Alternative investments may need additional in-house monitoring and supervision.

The URS staff provide little oversight of the systems' alternative investments. The CIO has assumed all responsibility for monitoring and

controlling the systems' alternative investments. However, the CIO has delegated most of his oversight responsibilities to the systems' outside consulting firm and the fund managers. Considering the complexity and level of risk involved, we believe the board and staff should consider whether they are relying too heavily on outside individuals to monitor the systems' alternative investments and whether additional in-house resources should be devoted to this task.

A consultant to the URS also suggests that providing adequate resources may be one of the "key factors for success" in alternative investing. Specifically, the consultant warns that "If plans do not control their alternative investments portfolio, the alternative investments portfolio will control them. Adequate resources are critical to control."

In conclusion, the board's oversight of alternative investments can be strengthened both by additional policy controls and additional in-house monitoring. Given the large investment in this risky asset class, we suggest that the URS reevaluate its practice of relying primarily on outside consultants and fund managers to oversee its alternative investments.

Recommendations

1. We recommend that the Retirement Board add language to its Investment Policy Statement (IPS) that clarifies the board's goals and objectives for alternative investments. The IPS should identify any limits or restrictions the board wishes to place on alternative investments and address rebalancing procedures for these illiquid assets.

2. We recommend that the Retirement Board clearly articulate the rationale to justify the amount allocated to alternative investments.

3. We recommend that the Retirement Board consider adopting a market-based benchmark for its alternative investments.

4. We recommend that the Retirement Board examine the conflicts of interest of the fund managers of its alternative investments and ensure that the fund's interests are adequately protected.

5. We recommend that the Retirement Board evaluate the adequacy of its in-house resources devoted to alternative investments and reconsider its policy of relying primarily on outside consultants and fund managers to oversee its alternative investments.

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Chapter V
Board Governance Can Improve

Prior chapters of this report identified specific changes the Utah Retirement System (URS) board should consider to improve its investment program. This chapter discusses additional actions the board could take to improve its overall governance of URS. Three sections are included in this Chapter:

Improving the governance structure could help the Retirement Board be more efficient and effective.

- Comprehensively review and rewrite the Investment Policy Statement.
- Adopt a set of governance polices.
- Consider certain other governance issues.

The governance structure affects both the effectiveness and efficiency of the board. By improving its governance structure, the board may be able to reduce the time commitment required of board members. The board usually meets three times a month, and some members told us that board duties require a significant time commitment. Pension boards in most other states meet less frequently.

Comprehensively Review and Rewrite the Investment Policy Statement

A comprehensive review and rewrite of the Investment Policy Statement is needed.

The Investment Policy Statement (IPS) is the primary tool by which the board communicates to staff and fund managers how the retirement fund should be invested. In recent years the board has amended the IPS many times in an effort to provide direction to staff, fund managers, and others. Still, we found some parts of the IPS confusing or incomplete. In contrast, the policies from some of the other state pension systems ' that we examined contain greater breadth, depth and clarity than the URS policy. We think the board should complete a comprehensive review and rewrite of its IPS following a structured approach, such as that presented by its consultant at the board's annual training conference. Specifically, the IPS should:

- Establish clear responsibility and authority relationships.
- Adequately direct and control investment decisions made by staff.
- Be well organized and easily accessible.

Investment Policy Statement Is Key To Effective Governance

The Investment Policy Statement must effectively guide the actions of staff, consultants, and fund managers.

One of the most important duties of the Retirement Board is to establish and maintain an IPS that effectively guides the actions of staff, consultants, and fund managers. According to *The Management of Investment Decisions*:

> The IPS is the most important document the fiduciary prepares. The process required to complete the IPS ensures that all bases have been covered and that all ongoing tasks and responsibilities are spelled out. All material investment facts, assumptions, and opinions should be included, as well as evaluative criteria for service providers. The IPS requires ongoing maintenance to keep up with changing circumstances and it should not be regarded as a static or historical document, but rather a current working tool. In fact, it may be the most useful tool the investor carries.

Furthermore, the authors warn that an inadequate IPS is "the most glaring omission fiduciaries and investors make."

Some other states' investment policies have greater breadth, depth, and clarity.

Some States' Investment Policies Are More Comprehensive. We found that some other states' investment policies tend to be more comprehensive and less ambiguous than those of the URS. In a recent study, the Government Finance Officers Association (GFOA) reviewed more than forty pension funds in order to identify the best practices in terms of policy development. The GFOA describes investment policies as "the linchpin of public pension investment programs." The study concluded that the best IPS is one that is written with enough breadth, depth, and clarity so that a "competent stranger" could manage the portfolio according to the investor's instructions. The Missouri State Employees Retirement System (MOSERS) was highlighted by the GFOA as a pension system with very good investment policies.

In comparison with those of URS, we found MOSERS' policies to have much greater breadth, depth, and clarity. For example, the MOSERS' policies comprehensively delineates the roles and responsibilities of those involved in the investment process. In addition, their policies include more depth regarding how investment decisions are to be made. For example, the URS policy does not provide nearly as much detail regarding the parameters for each asset class and the mechanics of rebalancing the portfolio.

A comprehensive redrafting of the policy should include components suggested by the URS consultant.

We also reviewed the investment policies of state pension systems for surrounding states. In general, we found their policies provided guidance and controls not found in URS policies. The URS policies also exclude items that their consultant specifically recommended be included in an IPS. Figure 18 shows the suggested content of an IPS according to training material provided to the board by their consultant.

Figure 18. Suggested Content of an Investment Policy Statement (IPS). The following list identifies the components of a comprehensive investment policy statement that were described in the training recently offered to the Retirement Board.

Suggested IPS Contents

- Executive Summary
- Background
- Distinction of Responsibilities
- Code of Ethics
- Statement of Objectives
- Security Guidelines
- Selection of Investment Managers
- Performance Monitoring
- Review Procedures
- Investment Manager Acceptance

Our consultant, DeWitt Bowman, also recommends that the IPS contain sections on proxy voting guidelines and procedures, security lending, comprehensive derivatives guidelines, management of foreign currency exposure, safekeeping and accounting standards, and soft dollar policies. The board should request a comprehensive redrafting of its IPS following the structured approach suggested by their consultant. The following discusses some specific areas that should be addressed.

Policies Should Establish Clear Responsibility and Authority Relationships

The URS can improve its IPS by clarifying the roles of board members, staff, and others involved in the investment process. Clearly defining the responsibility and authority of all relevant parties is necessary to avoid confusion as to who is responsible for what types of decisions.

Prior chapters address concerns that the IPS did not clearly identify which decisions require board approval. For example, Chapter II describes changes made to the asset allocation policy, and Chapter III describes strategic tilts that were made without formal board approval. We think the board should approve these decisions because they alter the allocation policy.

The responsibility and authority of all parties involved in the investment process should be clearly stated in policy.

IPS Should Clearly State the Roles of All Relevant Parties. The URS policy includes a section on consultant responsibilities but does not include the responsibility and authority of others involved in the investment process. In contrast, the MOSERS' IPS describes the roles and responsibilities of each of the following:

- Board of Trustees
- Executive Director
- Internal Investment Staff
- Internal Auditor
- External Asset Consultant
- External Service Providers

The URS policy should have similar provisions addressing the roles of each of the above parties.

Committee structures should be defined in policy.

IPS Should Clearly Define Staff Committee Structure. Some other pension funds we reviewed use staff committees to manage and/or review the investment process. These staff committees are responsible for monitoring investments, drafting policies and making important decisions regarding the investment of the retirement fund. URS has long had a staff committee for real estate and recently established an investment committee to help manage other investment decisions. These committees are useful to the board, but their role should be clearly defined in policy.

- **Real Estate Investment Committee (REIC).** This staff committee was established in 1985 upon the recommendation of the executive director to help manage real estate investments. The committee's make-up and responsibilities have evolved over the years without a clear board policy. Currently, the REIC's makeup and operation are defined in the Real Estate Administrative Procedures Manual. However, that document states that the REIC has final authority for changes to the manual. We aren't concerned with the actual operation of the REIC, but we think the

delegation of authority from the board to the REIC should be clearly stated in a board document.

- **Investment Committee.** During the course of this audit, we discussed with URS staff the benefits of establishing an investment committee so that major decisions are considered by more than one individual. They established a committee that includes the Chief Executive Officer, his deputy, and senior staff from the investment department. Committee minutes will be provided to the board to document the decision process.

The IPS should clearly define the make-up, responsibilities, and authority for these two committees as well as any other staff committees established by the board.

Policies Should Direct and Control Investment Decisions Made by Staff

Another important function of the IPS is to guide staff activities. Staff needs to be able to exercise discretion over day-to-day investment decisions within a clear framework established by board policy. Prior chapters of this report identified some actions the board could take to better guide staff actions, for example, to rebalance the portfolio or make strategic investment decisions. This section discusses additional direction and control of staff actions.

Policies should direct and control staff's use of risky investment strategies.

Board Should Review Derivatives Policy. We are concerned with the discretion staff have been given to make potentially risky investments without the board's approval or knowledge. According to the board's IPS for the internally managed passive index fund, "the use of derivative instruments is allowed as long as it does not create economic leverage in the portfolio." We are aware of only one instance in which the use of derivatives was questionable. It involved the trading of 43 options contracts executed against the systems' S&P 500 index fund in 1997. Because the use of derivatives represented a risky investment strategy that may be inconsistent with the purpose of this passive index fund, we think the board should consider additional controls on their use.

In 1997, URS staff sold call options against the S&P 500 Index. In general, a call option gives its owner the right to purchase a specific asset at a stipulated price called the strike price. Index options are a little different in that there is no specific asset to transfer ownership; instead,

there is a cash settlement. Essentially, the two contracting parties are betting on what the future index value will be on the contract settlement date. Since options are leveraged instruments, the seller of call options is exposed to significant losses if the index experiences a large increase.

URS incurred a net loss of $14.7 million through the 43 option trades executed from April 1 to June 24, 1997. URS sold option contracts for $7.5 million. If the S&P 500 index value had remained below the strike price, then URS would have kept the sales proceeds without having to pay the purchaser of the call option anything. However, because the value of the S&P index increased, it subsequently cost URS $22 million to purchase offsetting contracts.

Because there was no documented board discussion nor any written strategy for the option trades, their purpose remains unclear. We were told the transaction was designed, in part, to rebalance the domestic equities portfolio. However, the transactions were relatively small in size and at a variety of different strike prices. In the absence of a written analysis or approval, we cannot verify the appropriateness of the rebalancing plan. Another explanation given for the options strategy was to profit from an expected market decline. However, market timing is not considered a prudent process. The GFOA recommends that "governments should establish investment policy to preclude market timing as an acceptable investment strategy."

Although we are not aware of any options trades since 1997, we still think the board should amend the IPS to limit staff use of derivative investments, especially for index funds. Since the purpose of a passive index fund is to track the market, the use of option contracts may not be appropriate. At the very least, such a risky and unusual investment should require board approval and oversight.

Policies should not allow fund manager contracts to override restrictions.

Board Should Review Contracting Authority. We are concerned that the IPS allows staff to override board policy through contract provisions. Our concern is not with contracts that impose more strict requirements than general board policy; it is that the opposite may occur. The statement "unless otherwise permitted by contract" is used a number of times in the IPS. For example, the IPS prohibits the use of derivatives by domestic equity managers "unless otherwise permitted in the manager's contract." Similarly, the IPS prohibits certain investments by high yield

fixed income managers "unless specifically authorized within the manager's contract."

Since the only URS signature on fund manager contracts is that of the CIO, it seems that staff are able to override the IPS. We believe that manager contracts should not be allowed to alter the established IPS restrictions without board approval. Otherwise, allowing fund manager contracts to override the general IPS restrictions potentially represents an important shift of policy-making responsibility from the board to the staff. Given the relatively few manager contracts, the board should formally approve any contracts that allow investments outside normal policy provisions.

Additional Policy Detail Is Needed in Some Areas. As discussed earlier, the IPS should include enough breadth, depth, and clarity so that a "competent stranger" could manage the portfolio according to the investor's instructions. To meet that standard, URS policies need additional detail in some areas. The most comprehensive and clear area of URS investment policies is the real estate section. Other asset classes have less detailed policies that the board should consider expanding. Specifically, the IPS should provide greater detail on the investment objectives and style of each internally managed fund.

Separate real estate policies should correspond to the investment policy.

- **Real Estate Policy Provides Sufficient Detail.** In addition to the IPS, the board has adopted a separate real estate policy to guide and control staff. There are also a Real Estate Administrative Procedures Manual and a Real Estate Strategic and Implementation Plan which create a good structure for the real estate program. However, we found some inconsistencies in the asset allocation targets for real estate. The current IPS has a policy target that real estate comprise 9 percent of the total fund with a range of 5 to 13 percent. In contrast, the current Real Estate Policy Manual doesn't cite a target but includes a range of 7 to 15 percent of total pension assets. The Strategic Plan also cites a range of 7 to 15 percent and a target of 11 percent. In addition, the Strategic Plan includes sub-allocation targets for real estate sub-classes. Although they are formally adopted by the board, the investment staff reports that sub-class targets aren't as important as the overall targets for each asset class. The board should clarify in policy the use of sub-targets and ranges.

- **Some Other Asset Class Policies Need More Detail.** In Chapter IV we discussed the need for more detailed policies for the alternative asset class. We think the board should review every asset class to evaluate whether more specific direction and control are needed. The level of detail desired may depend on many factors including the nature of the asset class and whether funds are internally or externally managed. A few years ago, advisors recommended that the board amend the IPS to provide greater detail on the investment objectives and style of each internal URS fund. We think that is a good recommendation that still needs to be addressed.

Policies should provide more specific guidance for certain asset classes.

Policies Should Be Easily Accessible

In addition to developing a more comprehensive IPS, the policies should be easily accessible. In some instances, we needed the assistance of URS staff to locate investment-related policies that were established only in board minutes many years ago. A careful reading of all board minutes might identify other important policies that we do not know about. By establishing a clear organization or codifying their policies, the board could enhance the consistency of their policies and make them more accessible to themselves and staff. Furthermore, the board should consider making their policies public.

Policies should be accessible and clearly referenced to effectively guide the investment process.

Clear References to Related Policies Are Important. The clarity of the board's IPS is enhanced by specific references to all supplemental investment-related policies. The board's IPS includes references to "a separate real estate policy and guidelines document" and "URS' Soft Dollar Policies and Procedures." While the actual names of the documents are somewhat different and the effective dates aren't listed, the references made it easy for us to obtain the documents.

In contrast, it was difficult for us to understand the policy structure for alternative investments. In response to our concerns, the board added a phrase to the investment policy stating that "additional alternative investments guidelines are contained in a separate alternative investment policy and guidelines document." We think this phrase refers to the three staff adopted documents mentioned in Chapter IV, but the IPS statement is not clear. Inasmuch as these policies play an important role in guiding certain aspects of the investment process, we believe they should be at least referred to by name in the IPS and examined by the board.

Other investment-related policies may not be referred to in the IPS but instead are found in the board minutes or resolutions. For example, Board Resolution #93-21 titled "Establishing a Code Governing Ethics/Conflict of Interest for Board Members and Other Fiduciary Staff of the Utah State Retirement Systems" is a critical document pertaining to the management of the systems. This document also provides an important definition of a fiduciary. While the term "fiduciary" is used often in the IPS, it doesn't define the term.

Codify the Policies. In addition to including clear references to related policies in the IPS, the board should consider codifying their policies. Historically, board resolutions have sometimes been used to establish policy or delegate authority. However, resolutions and other actions taken in board meetings become increasingly difficult to access over time. A codification of investment and other policies would provide ready access for board members and staff to all existing board policies.

Board should consider whether it is necessary to keep its investment policies confidential.

Board Should Consider Making Policies Public. The board also should consider designating at least some of their policies as public documents. The ***Utah Code*** section on URS provides that "all data in the possession of the office is confidential and may not be divulged by the office except as permitted by board action." While URS policies are confidential, some other state pension systems go so far as to post their IPS on their web site. We aren't sure whether URS policies are confidential by design or merely because they are covered by the broad statutory language. Similarly, while the board minutes are confidential, some other state pension funds post their board minutes on their web site. In general, the board should review whether the level of confidentiality that now exists at the URS is necessary.

Adopt a Set of Governance Policies

The Retirement Board could also improve its oversight by adopting a set of governance policies to guide the board's decision-making process. Effective governance policies guide board members and staff by defining the procedures for conducting board business.

Governance Policy Defines the Board's Operations

Some other pension funds have board governance policies. For example, the MOSERS' governance policies include:

1. Board Job Description
2. Agenda Planning
3. Chairperson's Role
4. Board Members' Code of Conduct
5. Board Committee Principles
6. Board Committee Structure
7. Cost of Governance

Governance policies would clarify how the board operates.

The board should consider adopting governance policies that address areas similar to those in the MOSERS' policies. Governance policies would clarify how the board will operate including how agendas are set and when board action is required. Board committee structures can also be defined in the policies.

Board Committee Structures Should be Clearly Defined. The board conducts some business with committees including an audit/budget committee and a retirement insurance committee. We found information about committee structures available only in old board minutes. The audit committee guidelines were established in 1985 but are not necessarily followed because they are not accessible. We were told it is unlikely that the current audit committee chair has ever seen the guidelines. It is unwieldy to rely on minutes to learn if established guidelines still apply.

More detailed board minutes would help document the decision-making process.

Document the Board's Decision-making Process. The board should also consider providing more detailed board minutes. Fiduciaries are required to make prudent investment decisions and to document their decision-making process. Investment professionals caution that, "Fiduciary standards of care create the necessity for written documentation evidencing the fiduciary's diligence and informed consideration of the pertinent factors in the decision-making process."

Identifying the board's decision making process was difficult. Some decisions appear to have been made informally. Other decisions received formal board approval, but the board's rationale for making the decision was not clear. We believe board minutes should contain enough details so that the decision process is clearly documented.

Other Governance Issues Board Should Consider

In completing our audit work, we identified three other issues that the board should consider. Two of these involve the consultant who the URS relies on for advice and to monitor fund investments. The third involves a possible compliance officer position to help ensure that board directives are followed.

Board Should Consider Obtaining Advice From a Number of Different Sources

Different consultants may provide diverse viewpoints.

The board should consider seeking advice from a wider range of consultants to obtain a broader range of ideas and opinions. Currently, the URS relies primarily on Callan Associates as their outside consultant. Callan Associates is one of the largest consulting firms to public pension funds and has the ability to offer a wide range of services. Callan Associates provides advice in a number of different areas which are described in Figure 19.

Figure 19. Consultant Services. Callan Associates provide many services to URS.

Consulting Services
• Quarterly performance evaluation reports • Periodic asset allocation studies • On-going investment policy reviews • On-going investment manager structure reviews • Investment manager searches • Research • Education and Training

While we recognize that Callan Associates provides the URS with many valuable services, the board should guard against relying too heavily on a single consultant. During our survey of state pension funds in each of the western states, we found that most of Utah's neighboring retirement systems do not rely on one consultant to the same extent as URS. Most states either rotate consultants or use different consultants for different types of advice and services so they can be sure that the advice given is objective and that they are exposed to a diversity of viewpoints.

Board Should Address Consultant's Potential Conflicts of Interest

Potential conflicts of interest exist when the consultant receives revenue from the same fund managers it recommends to URS.

We are also concerned that potential conflicts of interest faced by Callan Associates could affect the fund. One of the many services that Callan Associates provides to the URS is to identify potential new fund managers. The process that Callan Associates uses to screen potential fund managers for the consideration of the URS staff appears reasonable. However, there is a conflict of interest because Callan Associates may receive revenue from the same fund managers it recommends to URS.

In recent years, the pension fund industry has become increasingly aware of the potential conflicts of interest that are faced by outside advisors. An article in the August 2002 edition of *Fortune Magazine,* titled, "The Seamy Side of Pension Funds," reports that:

> Consultants rake in millions by selling advice to money managers– the same people that pension funds pay them to evaluate. It is not uncommon for a consultant to charge money managers $200,000 or more for advice on how to impress the consultant's clients. Then there are conferences, like those thrown by consulting giants Mercer Investment Consulting and Callan Associates, where money managers pay to mingle with the consultants' pension clients. The price of admission, $50,000 and up.

The article reported that Mercer Investment Consulting received 10 percent of its total revenues from investment (money) managers, but it didn't include similar information for URS' consultant, Callan Associates.

We asked Callan Associates to identify the fees that they received from any clients it recommended to the URS. Callan Associates declined to provide specific figures but reported that fee revenue, in general, from investment managers constitute approximately 20 to 25 percent of the firm's total annual fees. Callan Associates also reported to us that ten of the fund managers who have been hired by the URS are members of the Callan Investment Institute which is operated as a separate business unit of Callan Associates.

While we did not identify any actual impact on the fund, we believe that the board should address their consultants' potential conflicts of interest. URS staff told us that Callan Associates already discloses if a manager pays fees directly to them. The board could require consultants

to disclose more specific information, including fee amounts that they receive from the fund managers employed or that are being considered for employment by the URS.

Board Should Consider Establishing a Compliance Officer Position

A compliance officer should verify whether fund managers are complying with the investment policy and whether individual staff are complying with the conflict of interest policies.

We also recommended that the URS establish a compliance officer position to monitor the investments made by fund managers and by URS staff. The compliance officer should verify that the investments comply with the board's investment policy statement, approved style tilts and fund manager contracts. In the past, the URS had considered establishing such a position, and once we suggested the need for a compliance officer they readily implemented our recommendation.

An important tool that the URS has in place is an alert system operated by its custodial bank. This system sends an e-mail notification or alert to the URS whenever a fund manager purchases securities that do not meet certain URS investment guidelines. However, the alert system has not identified some violations because the URS did not ask the custodial bank to check for some of the restrictions that the alert system was designed to check. The compliance officer should monitor the alert system to ensure that fund manager's investments are consistent with their policy and contract mandates.

Another important responsibility for a compliance officer is to monitor URS conflict of interest policies. We found that brokerage firms and retirement systems use a compliance officer to monitor compliance with their conflict of interest policies.

Recommendations

1. We recommend that the Retirement Board complete a comprehensive review and rewrite of its Investment Policy Statement (IPS) to ensure that the policies:

    a. Establish clear responsibility and authority relationships including,
        - Well-defined roles for all relevant parties
        - Well-defined staff committee structure

b. Adequately direct and control investment decisions made by staff including,
   - Adequate restrictions on use of derivatives
   - Board review of contracts that override normal policy
   - Adequate policy detail for all asset classes

c. Is well organized and easily accessible, including
   - Clear references to related policies
   - Codifying policies
   - Consider making policies public.

2. We recommend that the Retirement Board consider adopting a policy that precludes market timing as an acceptable investment strategy.

3. We recommend that the Retirement Board establish a Governance Policy that defines how the board and its committees are organized and operate.

4. We recommend that the Retirement Board consider requiring that more detailed board minutes be taken in order to better document its decision-making process.

5. We recommend that the Retirement Board consider seeking advice from a wider range of outside consultants.

6. We recommend that the Retirement Board address outside consultants' potential conflicts of interest and consider requiring consultants to disclose revenues they receive from investment managers who do business with the URS.

7. We recommend that the Retirement Board consider establishing a compliance officer position.

Agency Response

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PART ONE - GENERAL RESPONSE

Introduction

This agency response (Response) to Report 2003-03 of the Utah Legislative Auditor's Office, *A Performance Audit of the Investment Practices of the Utah Retirement Systems* (Report), allows the Utah State Retirement Board and the Utah Retirement Systems (hereinafter referred to jointly as URS) not only the opportunity to receive valuable input from the Legislative Auditor, but also to provide the Legislative Auditor and the Legislature information concerning the investment process used by URS. In general, URS agrees to consider all of the recommendations made in the Report. As with all audits, some recommendations can be implemented immediately, some require additional work and planning, and some require further discussion and research.

Since a number of the issues raised in the Report are complex and require significant discussion or explanation, this Response will contain two parts; Part One contains the general response of URS. Part Two will discuss in greater detail some of the more complex issues raised in the Report.

Background

A major function of URS is to manage the assets held in trust for beneficiaries to ensure that retirement benefits will be paid in accordance with the retirement statutes. To accomplish this, asset allocations are designed and managers hired to ensure that the assets are appropriately invested to meet the liabilities of the various retirement systems as identified by independent actuaries. Each retirement system in the country is unique in the sense that the liabilities of each system, based on factors such as status of funding, benefit structure and actuarial experience are different from every other system. Accordingly, each system will design an asset allocation that, based on historical data, is intended to meet the individual needs of that retirement system. URS believes that it is important to understand the unique nature of each retirement system as comparisons are made to other retirement systems throughout the Report and this Response.

Response to Chapter I Concerning Investment Performance

The Report correctly points out that there are various standards to evaluate investment performance. As noted in Chapter I of the Report, URS has exceeded its actuarially assumed rate of return of 8.0% by earning 8.05% over the last ten years. URS also measures itself against a benchmark of other retirement systems with assets in excess of $1 billion. On an asset adjusted basis, URS ranks in the 25th percentile over ten years, the 42nd percentile over seven years, the 54th percentile over five years, the 18th percentile over three years and the 47th percentile over one year.

While not the only factor, investment returns affect contribution rates. In 1979 the contribution rate for state and school employees was 18.4% of salary. During ensuing years and

with favorable investment returns, this rate has gone down significantly. For fiscal year 2001, the contribution rate was 13.68% of salary. For fiscal year 2002, the rate was reduced to 10.4% of salary, saving the State of Utah approximately $160 million for fiscal years 2002 and 2003. For fiscal year 2004, the rate was increased to 11.7% of salary, in large part due to the downturn in the equity markets.

This issue is discussed in more detail in Discussion Item 1.

Response to Chapter II Concerning the Efficient Frontier

The Report contains a comment that the asset allocation adopted by the Board prior to the last Asset Allocation Study in 2000 was not on the efficient frontier since it did not sit squarely on the straight line depicted in Figure 6 of the Report. The reality of the efficient frontier is that it is more of a band than a narrow line. Therefore, the asset allocation in effect in 2000 and immediately prior thereto was actually on the efficient frontier.

An efficient mix that meets the risk tolerance defined by the liabilities and Board's priorities is chosen. It is important to note that there are many efficient mixes that can be chosen that will lie on or near the efficient frontier. The mixes produce different risk reward tradeoffs. The appropriate mix is determined by the risk tolerance of the Board. If the Board decides it needs greater return in order to meet its actuarial rate of return it will also be accepting greater risk in doing so. If lower risk is desired, less return must be expected.

This issue is discussed in more detail in Discussion Item 2.

Response to Chapter II Concerning Transaction Costs

URS generally agrees that while transaction costs are a consideration, they should not prevent the Board from adopting a new asset allocation policy that would otherwise provide an optimal mix of assets. However, it should be noted that both asset allocation and transaction costs are extremely important and the asset allocation ranges reflect that concept. The bulk of transaction costs incurred are not the commission paid to sell the asset but the gain / loss on the sale of that asset. For example, making a major allocation change could result in a substantial loss if buyers perceive that the investor must sell the assets. The loss could easily cost more than the benefit of reallocating the assets.

This issue is discussed in more detail in Discussion Item 3.

Response to Chapter II Concerning Adopting Policy Targets for Subclasses

URS agrees with the Report's recommendation. URS is currently performing a manager structure analysis as a complement to its Asset / Liability study. The study will analyze the URS portfolio as to size bias and style bias as they relate to domestic and international equity portfolios. It will also analyze emerging markets versus developed markets bias regarding international portfolios. URS' goal is to monitor these areas as well as its asset allocation in order to provide the best risk adjusted return.

Response to Chapter II Concerning Reducing Allocations to Illiquid Asset Classes

The Report recommends that URS consider reducing the allocation to illiquid asset classes: real estate and alternative investments. Since URS faces no pressing liquidity needs, these investments don't pose a liquidity problem. Allocations to asset classes are set by the Board in conjunction with Asset / Liability studies prepared by the consultant to URS. In February 2003, the URS consultant presented to the Board an updated Asset / Liability study. It was noted that over the most recent 10 year period, real estate and alternative investments have been the two top performing asset classes for URS, returning 10.48% and 12.17% respectively. The Board has chosen to include real estate and alternative investments in their class of investable assets, and consequently they are part of the mix of assets used in arriving at the efficient frontier and receive a percentage allocation corresponding to the mix which is selected on the efficient frontier.

After considering the information presented in February 2003, in the March Board Meeting, the Board elected to increase the allocation to real estate by 1%, moving the target allocation to 10%. This decision was made because of the higher return expectation for real estate as noted in the capital market assumptions of the Asset / Liability study as prepared by the URS consultant. Additionally, both real estate and alternative investments have lower correlations to the other asset classes, thus reducing the overall risk to the investment fund.

This issue is discussed in more detail in Discussion Item 4.

Response to Chapter II Concerning Changing Policy Targets

The decision to add global fixed income in 1998 was a diversification move. URS believes that the hierarchy of decisions was properly followed in this situation since the change in asset allocation was discussed with the Board and the Board approved the investment manager search specifications. During the review of the investment manager search criteria which was provided to the Board, two facts were presented:

1. Global fixed managers vary their allocations between domestic and international bonds; and

2. The consequence of the addition of global fixed managers could be an increase in non-U.S. bond exposure at the expense of domestic fixed income.

In addition, each month all asset allocations, ranges and targets are reviewed with the Board.

This issue is discussed in more detail in Discussion Item 5.

Response to Chapter II Concerning Fund Risk and Return Affected by Global Managers

The Report indicates that URS may have received an additional $50 million in returns had the fixed income portfolio been invested in domestic fixed income rather than global fixed income between 1998 and 2000. It should be noted that the same investment in global fixed income resulted in approximately $57 million in additional income between October 2000 and December 2002 when compared to a comparable investment in domestic fixed income securities.

This issue is discussed in more detail in Discussion Item 6.

Response to Chapter II Concerning Reclassification of Fund Manager

The Report questions the propriety of reclassifying an alternative fund manager as a fixed income manager since the two investment classes are very different. In fact, this fund manager contains material characteristics representative of both the domestic fixed income and alternative investment classes and could reasonably be allocated to either investment class. The classification of investments into a specific asset class is sometimes unclear and, therefore, it is possible for the same investment to be appropriate for more than one asset class. For example, some public pension funds place real estate investment trusts (REITs) into the real estate asset class and other funds place REITs into the domestic equity asset class. In regard to this fund manager, some institutional investors place it within the domestic fixed income asset class and other institutional investors place it within the alternative asset class.

Based upon the target mix of the portfolio at inception and because investments were made through a limited partnership, it was logical to initially place this fund manager in the alternative investment asset class. As the portfolio evolved, it became increasingly characterized by privately placed high-yield debt securities. Upon the recommendation of the consultant, the fund manager was reclassified as a domestic fixed income manager.

Ultimately this fund manager was reclassified back to the alternative investment class because the high-yield debt securities component of the portfolio reduced from near 100% to approximately 50%. The initial classification and subsequent reclassifications were all made with prior review and approval of the consultant and the Board.

This issue is discussed in more detail in Discussion Item 7.

Response to Chapter II Concerning Managers Crossing Asset Class Boundaries

URS agrees that care must be taken to closely monitor the composition of each asset class that is included in the asset allocation in order to comply with the policy set by the Board and not inadvertently affect the overall risk and return of the retirement fund. URS agrees to monitor the compliance of fund managers in relation to their assigned asset classes. URS believes that the overall compliance with the asset allocation policy can best be monitored and controlled by not only giving the individual managers specific parameters, but also by monitoring the investment risk of all fund managers.

Risk is controlled by comparing the manager's performance with the respective benchmark, which is known as "tracking error." Tracking error is controlled in one of two ways. First, the active manager must out perform the benchmark and also be above median against its peers over a reasonable period of time. This assures URS that the manager will not deviate too far from the benchmark and peer group unless it can be shown that the manager's excess returns justify the risk. Second, URS restricts the tracking error of the manager as is the case of domestic equity enhanced index managers.

Recent studies have shown that unduly restricting a manager can backfire and significantly reduce returns.

This issue is discussed in more detail in Discussion Item 8.

Response to Chapter II Concerning Strengthening the Rebalancing Policy

URS agrees that a more definitive rebalancing policy should be adopted. Rebalancing is important because it can reduce tracking error which keeps URS on the efficient frontier established by its Asset / Liability study. However, rebalancing incurs transaction costs which can be very expensive to URS and cause a loss of return. Therefore, the important questions to answer are: When should rebalancing occur? How often should rebalancing take place? How far to rebalance? After discussions with consultants and significant research in this area, URS has determined that there are "best practices" in this area. URS is currently in the process of implementing these best practices. They are as follows:

- Establish, in writing, a formal rebalancing policy that is approved by the Board;

- Address in the rebalancing policy not only asset classes but other areas important to the portfolio such as style bias, size bias, etc.;

- Include in the rebalancing policy the determination of ranges of each asset class, style bias, etc. in conjunction with an Asset / Liability study and manager structure analysis. In addition, the calculation of the ranges should take into consideration risk tolerance and the cost of trading into or out of the asset class to be rebalanced, including market impact. Also to be considered are the volatility of the asset being rebalanced, the volatility of the balance of the investment fund, and the correlation between the asset and the balance of the investment fund;

- Consider transaction costs in the rebalancing policy. For example, set wider ranges for illiquid asset classes because the cost of rebalancing illiquid assets can be prohibitive;

- Perform rebalancing any time any asset class, style, size, etc. falls outside of its range. Rebalancing should be range based, not calendar based; and

- Rebalance back to the mid-point between the target and outer edge of the range once the asset or style or size, etc. falls outside the range. Studies have shown that this is the most optimal cost/benefit procedure.

This issue is discussed in more detail in Discussion Item 9.

Response to Chapter II Recommendations

1. Asset allocation targets are evaluated as part of an Asset / Liability study. As Asset / Liability studies are performed, URS will set optimal policy targets in conjunction with transaction costs. Additionally policy targets for asset sub-classes and allocations to all asset classes, including illiquid asset classes will be considered.

2. URS agrees to require Board approval prior to changing asset allocation targets and to provide appropriate analysis for such changes. However, URS believes that it has followed this process.

3. Fund managers are selected by URS and given a specific benchmark. The majority of manager holdings will be included in the benchmark. However, managers are given the latitude to hold investments outside of the benchmark. URS agrees to continue to monitor fund managers to ensure compliance with investment guidelines. In addition, the Board will monitor the risk return profile of the entire investment fund.

4. URS agrees to review its rebalancing policy including the frequency of rebalancing. URS is already studying this issue.

Response to Chapter III Concerning URS Tilt Toward Small/Mid Cap Value Stocks

The Asset / Liability study uses passive indexes to determine the mix of assets that will lie on the efficient frontier given a set of liabilities. Once the mix has been chosen, passive indexes are chosen as a policy benchmark in order to judge performance. Because URS uses active management and not passive management, the actual portfolio will look different than the policy benchmark. Invariably, it will cause some over or under weighting of style, size, or sectors as compared to the policy benchmark.

In the past, URS has purposely created an over weighting in small cap and value style in order to out perform the policy benchmark. History has shown that in the long term, these two areas tend to out perform. The emerging markets sector represents an additional opportunity set beyond the developed markets.

By over weighting any particular area compared to a passive index, more return is anticipated but more risk may also be incurred. These particular over weightings or under weightings are strategic in nature and should be approved by the Board.

It is also important that information regarding tilts be captured at the portfolio level in order to assess the amount of risk added to or deleted from the investment fund as compared to the policy benchmark. This is accomplished through a manager structure analysis. The various over weightings or under weightings done by each manager are summed to determine the total over weighting or under weighting exposure attributed to the investment fund. URS is currently in the process of doing such a manager structure analysis. Once the results have been tabulated, they will be presented to the Board for review. The Board will then make a decision as to how much over weighting or under weighting of the various areas ought to occur in light of the Board's risk tolerance and the mix chosen by the Board through the Asset / Liability study.

The Board will set ranges regarding the various tilts. These ranges will provide direction to staff to rebalance once those tilts exceed their upper or lower limits, assuring the Board that the tilts are within the parameters it has strategically approved. Thus, the overall risk of the investment fund, as compared to the policy benchmark, can be monitored at the Board level.

Responses to Chapter III Concerning the Real Estate Portfolio

Leverage is an important tool and is necessary to meet real estate performance objectives. As interest rates have fallen, leverage has become an effective way to enhance returns with a minimal amount of risk. Risk is controlled through short term borrowing and the ability to pay off the loan at any time.

The use of leverage has been allowed by the Utah State Retirement Board for several years. Until recently, leverage was not commonly used in the portfolio due to high interest rates. As interest rates fall, leverage becomes more compelling. In October, 2001, a presentation was made to the Board on the risks and benefits of leverage. The Board reiterated their policy of allowing leverage.

The performance of the real estate portfolio is measured in two ways. The first is in comparison to the NCREIF/NAREIT benchmark and secondly to its peer group. As the Report correctly states, the benchmark is less heavily leveraged than the URS real estate portfolio. However, the portfolio's leverage is within the range used by the peer group.

Regarding opportunistic investments, research was also completed in the Strategic Plan to determine how much opportunistic investment the peer group of pension funds has. This ranges from approximately 10% to 30%. At less than 30%, URS is within this range. Again, in order to be competitive with the peer group, URS must use similar mixes of investment risk.

URS has the economic rationale for its use of leverage and opportunistic investments and agrees that such strategic investments should be approved by the Board.

This issue is discussed in more detail in Discussion Item 10.

Responses to Chapter III Recommendations

1. URS agrees that annually strategic plans will be presented to the Board for its approval. Establishing allocation of assets to the various investment styles including tilts, or subclasses could involve an Asset / Liability study which requires Board approval.

2. URS agrees to follow the steps outlined in this recommendation when an investment significantly draws the fund away from its underlying policy benchmark.

Response to Chapter IV Concerning Staff Setting Alternative Investment Requirements by Contract

URS agrees that polices should be approved by the Board and should govern the scope of URS contracts. The policies outlined in the Report were discussed with the Board. URS is currently reviewing those policies and will submit them to the Board for approval. URS also believes that strategic plans should be approved by the Board. URS will be presenting strategic plans to the Board that are in accordance with the policies. However, URS believes that tactical plans are the responsibility of staff and are presented to the Board for information but not approval. Tactical plans are used to implement the strategic plans that have been adopted by the Board.

Response to Chapter IV Concerning Allocations Being Based on Economic Rationale

The Report states "Although the URS has traditionally held more alternative investments than its peers, we found little evidence that the URS has clearly justified its higher allocation." In Chapter II the Report states "The process that the URS uses to establish its asset allocation policy is a good one."

The decision to invest in alternative investments was made based upon the asset allocation policy of the Board. In studying this asset class through the URS Asset / Liability study, the Board noted that the correlation of alternative assets to the other asset classes is low, thus providing additional diversification. The Board also had a risk tolerance for the asset class. Its decision has been a very good one based upon the ten year performance attribution of the URS. It has been the highest returning asset class. With its low correlation, alternative investments have produced the highest risk adjusted return. URS believes it has clearly articulated the rationale behind the policy target selected through the asset allocation policy and process.

Response to Chapter IV Concerning Alternative Asset Valuations

URS agrees and is aware that there are difficulties in valuing alternative investments. URS believes it would be helpful to discuss the process used to value alternative investments. Quoting one of URS' fund managers:

> “We, on behalf of all of our clients, receive unaudited quarterly financial statements and an audited annual financial statement for each partnership investment in which our clients have made an investment. These financial statements include a schedule of portfolio company investments which lists each portfolio company, the securities owned by the partnership, the cost basis of the securities and the general partner’s estimated value of the investment. The valuation of privately-held investments is a difficult task given the absence of a liquid market for these securities. As such, while many have described the valuation process that general partners undertake to ascribe interim valuations for their privately-held portfolio companies as more art than science, there do exist some general industry guidelines that help the general partner in the valuation process.”

URS and its fund managers do not take the valuations reported by the general partners at their face value. As has been discussed above, an extensive review process is used with direct input from URS fund managers to the general partners in valuing the individual companies in the respective partnerships. URS has engaged fund managers and consultants with expertise in this area to improve its process.

This issue is discussed in more detail in Discussion Item 11.

Response to Chapter IV Concerning the Periodic Return on Private Equity

URS agrees that the best way to evaluate the alternative asset program is using the internal rate of return. In fact, that is exactly how URS measures the program. URS fund managers report performance using the internal rate of return. The annual report to the Board by the consultant uses the internal rate of return as the performance measurement. Although the quarterly report from the consultant reports time-weighted returns, URS judges the success of the program based on the internal rate of return. The time-weighted returns are used for comparison purposes to other plans, survey information, etc. URS also notes that time-weighted returns and the internal rate of return should converge over time.

This issue is discussed in more detail in Discussion Item 12.

Response to Chapter IV Concerning a Better Benchmark to Evaluate Performance

URS agrees that a better benchmark to evaluate alternative investment performance is needed. This suggestion was made by URS internal auditors and was scheduled to be presented to the Board in February 2003. Due to URS’ involvement with the legislative audit, this issue has not yet been addressed by the Board. URS has gathered substantial data on this issue and will make a presentation to the Board.

Response to Chapter IV Concerning Manager Benchmark

URS concurs that the benchmark of this mezzanine fund manager needs to be reviewed and is in the process of conducting this review. This review was initiated following a URS

internal audit recommendation presented to the Board in December 2002 to review the benchmark of this fund manager. This review is being conducted concurrently with the review of the benchmark of the alternative investment asset. In determining the appropriate benchmark for this fund manager, URS will weigh a number of factors such as portfolio composition, investment structure, industry practice and initial portfolio return objectives.

Response to Chapter IV Concerning Fund Manager's Potential Conflicts of Interest

The Report notes that certain entities with which URS contracts may have conflicts of interest and uses an alternative fund manager as an example of how such conflicts might arise. In order to engage the top professionals in the country, URS and other institutional investors, will have investment relationships with a variety of fund managers, consultants, investment banks and other entities that have affiliated companies. These affiliates may provide services to the entity with which URS contracts, creating a potential conflict of interest for the contracting entity.

If an institutional investor such as URS simply avoids contracting with entities that have potential conflicts of interest it significantly impedes the investor's ability to adequately diversify its investment fund which is a requirement for such investors. Also, the investor will fail to benefit from a significant amount of expertise and investment opportunities that affiliates of an alternative fund manager can provide, which will ultimately benefit the beneficiaries of the investment fund. The key to managing potential conflicts of interest is to align the interests of the investor and the contracting entity within the contract and include adequate controls, then monitor and enforce the terms of the agreement.

In 1995, when the investment agreement highlighted in the report was signed, significant time was spent on addressing potential conflicts of interest. As a result, the following provisions were used to align the interests of the parties and control potential conflicts of interest:

- The fund manager expressly agreed to act as a fiduciary of URS, thereby accepting significant common law and statutory obligations;

- The fund manager was required to make significant co-investments in the investments made pursuant to the investment agreement. The fund manager would be at risk of losing significant sums of money if it did not act in the best interest of URS or attempted to benefit an affiliate at the expense of URS;

- Agreements with affiliates were required to be made in arm's length transactions and at market rates for the services provided; and

- Any investment in a portfolio company controlled by an affiliate of the fund manager was required to have a significant percentage of the investment purchased by an unrelated third party to confirm that the investment was being sold at market price.

It is interesting to note that once this investment agreement was in place, the fund manager opened a follow on investment offering for institutional investors using the exact same

structure and control system to manage potential conflicts of interest. The fund manager received approximately $900 million from numerous institutional investors. These institutional investors are sophisticated and have the same fiduciary obligations as URS. This significant investment by other institutional investors indicates that potential conflicts of interest were reviewed by those institutional investors and were addressed to their satisfaction in the investment agreement.

The Report reviews specific transactions made under this particular agreement. Each of these transactions complied with the terms of the agreement and were subject to the foregoing controls.

The Report also addresses adequately managing potential conflicts of interest through proper implementation and oversight. The new investment compliance officer position discussed later in this Response will improve URS' ability to implement and oversee potential conflicts of interest. URS will review potential conflicts of interest as contractual relationships are created or reviewed.

This item is discussed in more detail in Discussion Item 13.

Response to Chapter IV Concerning Adequacy of In-House Resources Devoted to Alternative Investments

URS agrees to evaluate the level of in-house resources devoted to monitoring and supervising alternative investments. Currently, alternative fund managers and the alternative investment consultant provide critical expertise, oversight and supervision to the alternatives program.

Fund managers provide the following services:

- Conduct Due Diligence Review
- Maintenance of Accounting and Performance Records
- Preparation of Quarterly Reports
- Participation on Advisory Committees
- Preparation of Tactical Plan
- Preparation and Presentation of Performance Review

The consultant provides the following services:

- Preparation of Policies and Procedures
- Perform Review of Proposed Investment
- Preparation of Strategic Plans
- Review Tactical Plans
- Perform Quarterly Review
- Preparation and Presentation of Performance Review

The challenge for URS will be to enhance current supervision and oversight through in-house resources without creating excessive duplication of the services provided by managers and the consultant.

This issue is discussed in more detail in Discussion Item 14.

Response to Chapter IV Recommendations

1. URS agrees to amend its Investment Policy Statement to clarify the goals and objective for alternative investments, identify limits or restrictions the Board wishes to place on alternative investments and address rebalancing of alternative investments as part of an overall rebalancing policy.

2. URS agrees the rationale justifying the amount allocated to alternative investments should be articulated. Through its Asset / Liability study, URS believes that it has provided adequate rationale to justify the amount allocated to alternative investments. In the Investment Policy Statement, URS will articulate the rationale to justify the inclusion of alternative investments.

3. URS agrees to consider adopting a market based benchmark for its alternative investments. URS is currently working on this issue with its consultant.

4. URS was aware of the potential conflicts of interest raised by the Report and believes it took adequate steps to manage those potential conflicts. URS agrees to continue to monitor potential conflicts of interest associated with alternative investment fund managers to ensure that the fund's interests are protected.

5. URS agrees to re-evaluate the adequacy of in-house resources devoted to alternative investments. Currently, alternative fund managers and the alternative investment consultant provide critical expertise, oversight and supervision to the alternatives program. The challenge for URS will be to enhance current supervision and oversight through in-house resources without creating excessive duplication of the services provided by managers and the consultant.

Response to Chapter V Concerning the Comprehensive Review and Rewrite of the Investment Policy Statement

URS has always maintained investment policies and procedures to govern the way investments are managed. Over time various groups of policies have been developed such as Real Estate Policies and Procedures, Real Estate Strategic and Tactical Plan, Statement of Investment Policy and Performance Objectives and several other investment documents. Additionally, written practices, policies and procedures relating to proxy voting guidelines, security lending, derivatives, foreign currency, safekeeping, and soft dollars have been available and followed by staff. Some of these documents have been presented to the Board for their approval. These documents have been regularly amended and updated in an effort to reflect current practices. URS recognizes the need to review these various policies and procedures and

incorporate them into a global Investments Policy Statement so that all investment related policies and procedures are contained in one document and appropriately referenced.

Response to Chapter V Concerning Derivatives Policy

URS concurs that investment strategies using derivatives should be disclosed and approved by the Board. If properly used, derivatives represent an important tool for controlling portfolio risk, efficiently modifying portfolio characteristics, and enhancing portfolio returns. The majority of URS portfolio managers do not use derivatives. For example, as of December 31, 2002, only one of eight domestic equity managers used derivatives. In those instances where derivatives are permitted, they are generally used to control interest rate risk, foreign exchange risk, or, in very limited instances, to construct a tactical portfolio overlay. URS fund managers are not permitted to use derivatives in a manner which would create economic leverage in a portfolio. Their use is monitored by both the fund manager and URS.

Response to Chapter V Concerning the Adoption of a Set of Governance Policies

URS recognizes the importance of establishing and following governance policies. Title 49 defines the duties and responsibilities of the Board. It also provides, in some detail, how Board business should be conducted. Through Board resolutions other governance polices pertaining to the Board have been established. Recognizing the need to consolidate governance practices and polices into a document that can be readily referenced, URS has begun to develop a set of governance policies. URS has obtained governance policies from the State Teachers Retirement System of Ohio, Public Employees' Retirement Association of Colorado, and Missouri State Teachers' Retirement System. These policies will aid URS in developing governance policies which will be uniquely adapted to meet the needs of URS.

Response to Chapter V Concerning Seeking Advice from a Wider Range of Consultants

The issue of multiple consultants is not a new issue with URS. Prior to 1997 URS used multiple consultants to provide various investment services. URS used one consultant to evaluate performance of the defined benefit plan, a second consultant was used to provide Asset / Liability studies and assist in investment manager searches, a third consultant served as an advisor on the real estate asset class, and a fourth consultant provided services relative to the defined contribution plans. URS experienced difficulty relative to coordinating multiple consultants. Additionally, URS compared the types of products and services provided by the different consultants. It became clear to URS that one consultant consistently provided a superior product and service level.

URS evaluated this experience with multiple consultants and in late 1997 recommended to the Board that one consultant be used. The justification for this recommendation was: (1) Using one consultant ensures that the consultant has the "big picture" of URS. This is important in developing asset allocations and in the selection of managers who can best implement the asset allocation; (2) Having a consultant on retainer ensures that there is no motivation to churn managers or perform special projects in order to increase fees; (3) Consolidating consultant

services with one consultant promotes better service levels because URS becomes a more important client; and (4) Using only one consultant is estimated to save URS at least $100,000 annually.

To determine if URS was unique in using only one consultant it surveyed public pension plans nationwide. URS found that over 50% of the plans surveyed used only one consultant. URS also noted that most of the public pension plans using more that one consultant were much larger than URS. Cost / benefit should play a significant role in determining the number of consultants. It should also be noted that there are very few institutional consultants qualified to provide the services URS requires.

Response to Chapter V Concerning Consultant's Potential Conflict of Interests

URS agrees that it is important to be aware of potential conflicts of interest and to institute appropriate controls over such potential conflicts. URS has addressed this issue with the consultant and the Board in the past and has been satisfied with the internal controls instituted by the consultant to protect against conflicts of interest. This issue will be readdressed with the consultant.

Our consultant is a private company and therefore is under no obligation to disclose details regarding fees paid to them by others. As noted in the Report, the consultant's revenue generated from investment managers is approximately 20 to 25 percent of total revenue. The majority of the consultant's revenue comes from its consulting business, representing over 50 percent. Thus, loyalty to clients such as the URS is a significant priority.

As an SEC registered investment advisor, our consultant must regularly file a Form ADV with the Securities and Exchange Commission. URS has been provided with this filing. It describes their business, the nature of services provided and the types of clients served.

An outline of the controls instituted by the consultant to protect against conflicts of interest is found in Discussion Item 15.

Response to Chapter V Concerning Establishing Investment Compliance Officer Position

URS concurs with the recommendation to establish an investment compliance officer position to monitor the investment activity of fund managers and personal trading activity of fiduciary staff, and in fact, has now filled this position. Although the investment compliance officer works closely with the investment department, the investment compliance officer reports directly to the URS internal audit director in order to maintain the reporting independence of this position.

As noted in the Report, URS has established a system of alerts with its custodial bank to monitor the investment activity of fund managers. These alerts have been monitored in the past and will continue to be monitored going forward. Following a gap analysis which involves comparing the current alert structure to investment guidelines and manager contracts, additional

alerts will be added where feasible. In those areas where the alert system is not capable of monitoring investment activity of fund managers, additional monitoring procedures or controls will be put in place to address those gaps.

In addition, the investment compliance officer will work closely with staff to improve the control structure of the investment process and be actively involved in the rewrite of the investment policies and procedures.

Response to Chapter V Recommendations

1. URS agrees to perform a complete review, and, where necessary, a rewrite of its Investment Policy Statement to consider the areas listed in the recommendations.

2. URS agrees that market timing based on short term market trends is not an acceptable process regarding asset allocation. Any asset allocation and / or rebalancing will be done in a disciplined manner in conjunction with established policies and procedures.

3. URS will research and prepare an appropriate governance policy that will include defining how the Board and its committees are organized and operate.

4. URS agrees that minutes should document the decision making process and will ensure the documentation of investment decisions in the future.

5. URS will again consider whether it is in the best interest of URS to engage multiple consultants. URS has used multiple consultants in the past and found that using a single consultant was more efficient and cost effective and provided a better level of service.

6. URS agrees to revisit conflict of interest and source of revenue issues with its consultant.

7. URS agrees to hire an investment compliance officer, and in fact, an investment compliance officer has been hired and is functioning in that position.

PART TWO - DISCUSSION ITEMS

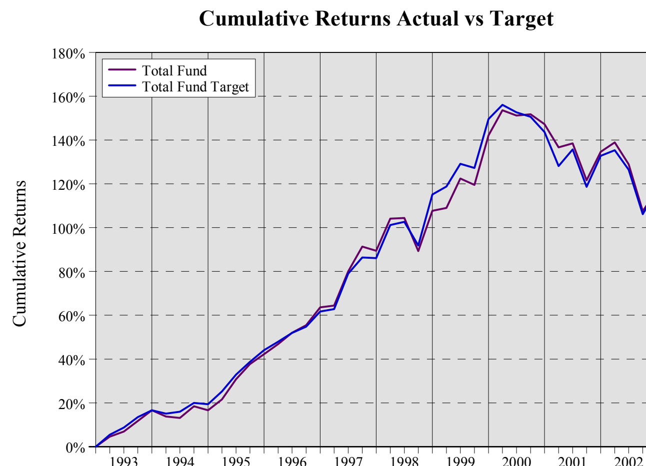
Discussion Item 1

Chapter I - Investment Performance Comparison

Investment Performance Compared to Policy Benchmark

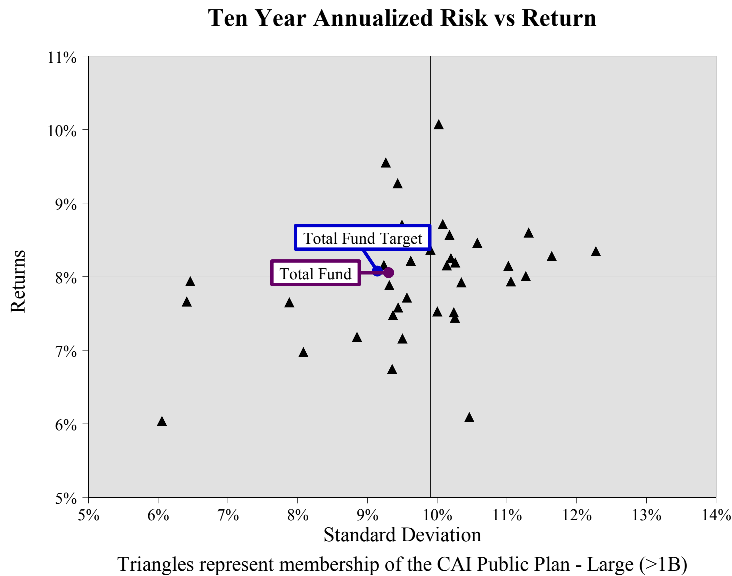
The Report shows URS performance versus its policy benchmark for the years 1997 through 2002 for each year. URS will out perform or under perform its benchmark from year to year because capital markets fluctuate. URS is long-term oriented and therefore looks at its performance over a longer period of time. For the past ten years ending December, 2002 (the time period of the audit) URS has returned 8.05% versus its assumed actuarial rate of return of 8%. If one compares URS to its policy benchmark over the same period of time it has met its policy benchmark as shown in Figure 1.

Figure 1



In terms of a risk adjusted return, URS has not only met its ten year target but has out performed most large public pension plans that have the same amount of risk as shown in Figure 2. Notice that the standard deviation on the horizontal axis for URS is a little greater than 9%. The return on the vertical axis is just above 8%. Most other pension plans with the same standard deviation are in the lower left hand quadrant yielding lower returns. Those plans that have higher returns generally take more risk. They are in the upper right hand quadrant. Ideally, a pension plan wants to be in the upper left hand quadrant - the most return for the least amount of risk. URS is in the upper left hand quadrant.

Figure 2



The Report has singled out the under performance in 1998 and states that "the reason for the fund's large under-performance in 1998 was due to an over-weighting of small cap and value stocks that year." This only explains about one half of the loss. The other half is attributed to other market forces in 1998 as noted in Figure 3.

Figure 3

One Year Cumulative Attribution Effects

Asset Class	Effective Weight	Avg Trgt Weight	Actual Return	Target Return	Manager Effect	Asset Allocation
Domestic Equity	38%	35%	11.71%	21.87%	(3.24%)	(0.01%)
Domestic Fixed-Income	18%	17%	7.26%	8.70%	(0.24%)	(0.13%)
Real Estate	11%	11%	9.69%	10.41%	(0.02%)	(0.15%)
International Equity	17%	20%	4.81%	7.48%	(0.40%)	(0.10%)
Int'l/Global Fixed-Income	9%	10%	15.36%	15.85%	(0.14%)	(0.33%)
Alternative Investments	6%	7%	11.31%	15.00%	(0.37%)	(0.11%)
Cash Composite	1%	0%	5.76%	5.76%	0.00%	(0.05%)

Total	**9.65% = 15.62% x (4.37%) x (0.83%)**

As noted in Figure 3 above, the total manager effect for 1998 was a negative (4.37%). The bulk of the under performance was from domestic equity which showed a negative (3.24%). The balance of the under performance was spread between all other asset classes totaling a negative (1.13%). Thus, approximately one fourth was attributed to other areas and not the small cap value tilt that the Report suggests. Also, other contributors were the international equity and fixed income areas. Because URS did not break out size and style bias in 1998, it is difficult to determine the actual amount attributed to small cap value. It is important to note that large cap value also under performed. The year 1998 was very unusual. The Standard & Poors ("S&P") 500 Index was more growth style than an index. In fact, the largest 25 stocks caused virtually all the out performance of the S&P 500 index that year. Most active managers did not beat the S&P 500 because of the bubble effect and over valuation to telecom, media, and technology companies.

In all likelihood, the under performance of large cap along with the different allocations in the international equity and fixed income markets caused enough under performance to decrease the small cap value effect to approximately 50% attribution for the 1998 loss.

It is important to note that URS took action to correct those problems. All active large cap managers were terminated and replaced with an in house passive index strategy. URS also decreased its exposure to small cap and value stocks but still believed this particular style would out perform in future years thus leaving a majority of the overweight still in place. (History has shown that when a certain style under performs for a period it will usually out perform in a later period.) Because of the steps taken by URS immediately after the 1998 under performance, URS made back the loss in subsequent years as evidenced by the over performance of the small cap value stocks (Russell 2000 Value Index) against large cap stocks (Russell 1000 Index) in the years 2000, 2001, and 2002 (See Figure 4).

Figure 4

	Annual and Ten Year Returns for Small Cap Value Stocks and Large Cap Stocks											
	2002	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	Ten Years
RUSSELL 1000 INDEX	(21.65)	(12.45)	(7.79)	20.91	27.02	32.85	22.45	37.77	.39	10.18	8.93	9.19
RUSSELL 2000 VALUE INDEX	(11.43)	14.02	22.83	(1.49)	(6.45)	31.78	21.37	25.75	(1.54)	23.77	29.14	10.85

Most of the gain was in the year 2000. The Report attributes all of this gain to the out performance of the alternative investments. In fact, it contributed just a little better than one half the gain. The other part was attributed to the overweight in the small cap value stocks which carried forward from 1998. Figure 5 shows the performance attribution for the year 2000.

Figure 5

One Year Cumulative Attribution Effects

Asset Class	Effective Weight	Avg Trgt Weight	Actual Return	Target Return	Manager Effect	Asset Allocation
Domestic Equity	38%	36%	(1.60%)	(7.15%)	2.20%	0.05%
Domestic Fixed-Income	15%	16%	12.03%	11.63%	0.06%	(0.22%)
Real Estate	10%	11%	12.88%	14.24%	(0.11%)	(0.15%)
International Equity	18%	20%	(21.09%)	(17.31%)	(0.72%)	0.24%
Int'l/Global Fixed-Income	8%	11%	1.97%	0.17%	0.13%	0.17%
Alternative Investments	9%	7%	48.70%	15.00%	2.40%	0.37%
Cash Composite	1%	0%	9.06%	9.06%	0.00%	0.15%
Total			**2.11% =**	**(2.38%) x**	**3.97% x**	**0.60%**

The total manager effect in 2000 was positive 3.97%. Notice that alternative investments depict a manager effect of 2.40% and the domestic equity depicts a manager effect of 2.20%. Thus, the under performance attributed to small cap value stocks in 1998 was almost totally reversed in 2000. The Report stated that had small / mid cap stocks been rebalanced in 1998, returns would have been higher. However, the under performance in 1998 was reversed in 2000. Thus, URS offset the loss in 1998 by the out performance in 2000 in small / mid cap stocks.

URS has shown the performance attribution for two individual years: 1998 and 2000. Because URS actively manages its investment portfolio, the manager effects, as depicted earlier for each of those years, varies considerably from year to year. Figure 6 shows the performance attribution for ten years. Notice that the manager effect is only .24%. Thus, in the long term, volatility tends to even out. This is why URS thinks it is crucial to judge the performance of URS over a long period of time and not particular short periods.

Figure 6

Ten Year Annualized Cumulative Attrib

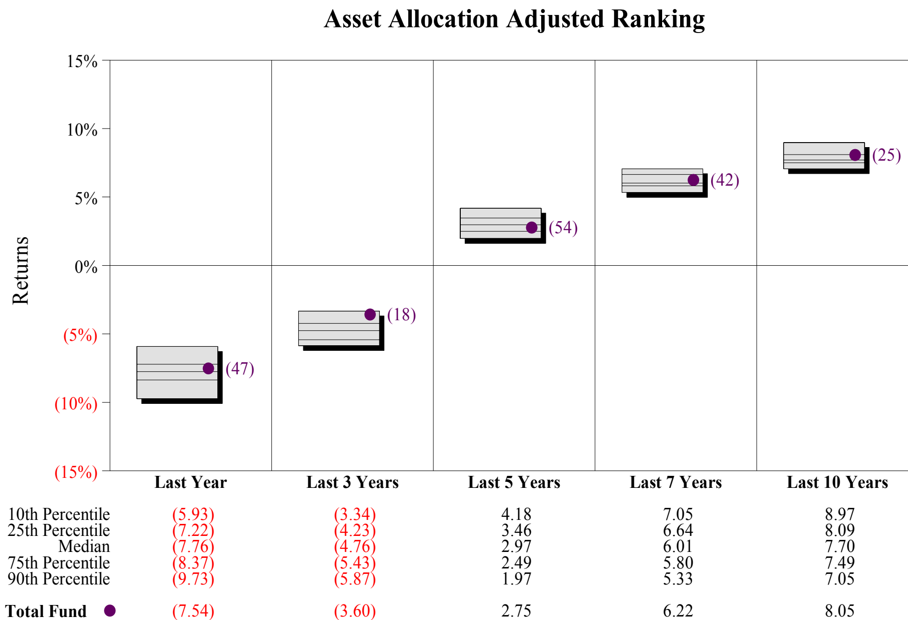
Asset Class	Effective Weight	Avg Trgt Weight	Actual Return	T R
Domestic Equity	39%	36%	9.34%	
Domestic Fixed-Income	22%	20%	6.96%	
Real Estate	9%	11%	10.48%	
International Equity	17%	20%	5.07%	
Int'l/Global Fixed-Income	6%	6%	7.08%	
Alternative Investments	6%	7%	12.17%	1
Cash Composite	1%	0%	5.46%	
Total			**8.05% =**	**8.**

Investment Performance Compared to Other States

The Report shows a table depicting the three and five year returns of URS as compared to other state retirement systems in the Western United States. Because each pension plan in the United States has its own benefits structure, employee vesting schedules, ratio between active and retired employees, etc. it is not meaningful to compare one pension plan to another simply based on geographic location or size of the plan. URS believes it is more accurate to try and put all the pension plans on the *same liability* assumption thus causing the asset allocations to be similar. Thus assuming all pension plans had the same liability requirements as URS and had allocated the assets in the same fashion, how did URS do against its peers? Figure 7 illustrates the results.

The goal of URS is to be at or slightly above median. The reason for this is to avoid large amounts of volatility to the portfolio. Those plans that rank near the top in a given year are usually near the bottom in a subsequent year. By taking a more conservative approach, URS feels it can achieve its goal without taking undue risk. The number in each box in Figure 7 is URS' ranking compared to its peer group. Note that the ten year number, the long term horizon of URS, shows the portfolio to be in the top quartile of its peer group of large pension plans with assets in excess of $1 billion.

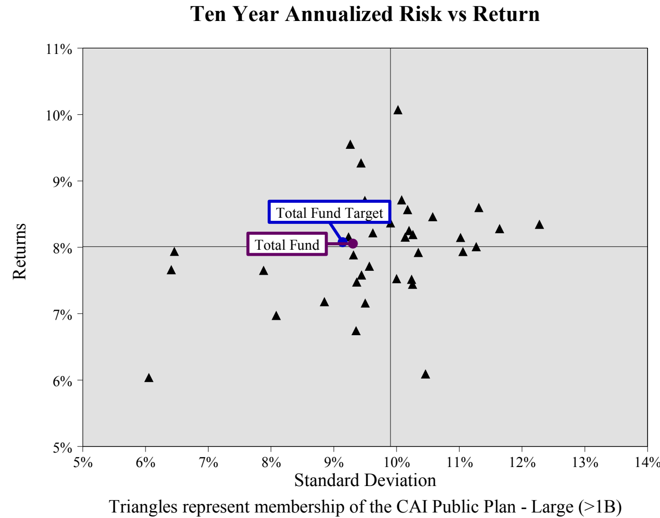
Figure 7



	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
10th Percentile	(5.93)	(3.34)	4.18	7.05	8.97
25th Percentile	(7.22)	(4.23)	3.46	6.64	8.09
Median	(7.76)	(4.76)	2.97	6.01	7.70
75th Percentile	(8.37)	(5.43)	2.49	5.80	7.49
90th Percentile	(9.73)	(5.87)	1.97	5.33	7.05
Total Fund ●	(7.54)	(3.60)	2.75	6.22	8.05

One other point worth noting: the Report does not address risk when comparing URS to other pension plans. As shown in Figure 8, URS has done better than most pension plans that exhibit the same risk characteristics.

Figure 8



URS repeats the same comment regarding Figure 8 that was made earlier in its response. The standard deviation on the horizontal axis for URS is a little greater than 9%. The return on the vertical axis is just above 8%. Most other pension plans with the same standard deviation are in the lower left hand quadrant yielding lower returns. Those plans that have higher returns generally take more risk. They are in the upper right hand quadrant. Ideally, a pension plan wants to be in the upper left hand quadrant, indicating the most return for the least amount of risk. URS is in the upper left hand quadrant.

Discussion Item 2

Chapter II – Efficient Frontier and Asset Allocation Policy

The Report outlines the procedure URS uses to allocate its assets. URS believes it is important to comment on the procedure.

The goal of an Asset / Liability study is to find an efficient mix of assets that meets the liability requirements. The range of mixes that lie on the efficient frontier is numerous. Often the efficient frontier is depicted as a single line on a graph but in fact, there are efficient mixes that lie above and below the line. Thus, it can be described more as a band or cloud rather than as a single line. The reason that the efficient frontier is not an exact line is the inexactness of the inputs. The Asset / Liability study generally uses five year forecasted estimates of capital market returns. Looking for exactitude in the outcome is not warranted because of the forward looking projections.

An efficient mix that meets the risk tolerance defined by the liabilities and Board's priorities is chosen. It is important to note that there are many efficient mixes that can be chosen that will lie on or near the efficient frontier. The mixes produce different risk reward tradeoffs. The appropriate mix is determined by the risk tolerance of the Board. If the Board decides it needs greater return in order to meet its actuarial rate of return it will also be accepting greater risk in doing so. If lower risk is desired, less return must be expected.

Once the mix of assets is chosen, rebalancing ranges for each asset class should be determined by the expected volatility of each asset class, the size of the allocation, and the constraints imposed by illiquidity. The Board then approves the ranges. They approve the ranges in conjunction with their approval of the Asset / Liability study.

It is important to note that the ranges are necessary because the Asset / Liability study assumes no transaction costs. If there were no transaction costs, URS would rebalance back to its target percentages every day to stay within the efficient frontier. Because there are transaction costs, rebalancing everyday back to target would create greater cost than the benefit of rebalancing. Thus, the ranges are set such that the cost / benefit of rebalancing is maximized.

It is also important to note that the targets are generally the mid-point of the range of each asset class and do not necessarily represent the rebalancing point. It is generally more cost efficient to rebalance to the midpoint between target and the outer edge of the range. Research has shown that more than one half of the benefit of rebalancing can be achieved with one half the transaction cost by rebalancing to the mid-point rather than all the way to target. Thus, because of transaction costs, the efficient frontier is really represented by the lower and upper ranges.

Being off the target percentage within a particular asset class does not put URS off the efficient frontier if the percentage still lies within the upper and lower range. The reason for rebalancing once a particular asset class moves outside of its range is to bring the asset class back onto the efficient frontier. The policy targets are used to allocate funds to each asset class

only.   Thus, the comment in the Report that ". . . the second part of an effective asset allocation plan is to stay as close to the target allocation as possible without incurring unwarranted transaction costs" is true. But because of transaction costs, it may not be cost effective to rebalance all the way back to the policy targets.

Figure 6 of the Report assumes that URS was off the efficient frontier in year 2000 and that the Board elected a mix that would put it back on that frontier. The efficient frontier as stated previously is not a target percentage nor is it represented by a single line on the graph shown in Figure 6. Rather, it should be thought of as a band or cloud. Although the circle in Figure 6 is below the line it is still within the band and thus not off the efficient frontier. The Board chose to lower its return and risk at that time because it felt the lower return was adequate to meet the future liability obligation.

Discussion Item 3

Chapter II - Consider Optimal Portfolio Separately from Transaction Costs

URS generally agrees with the Report's statement that although transaction costs are a consideration, they shouldn't prevent the Board from adopting a new asset allocation policy that would otherwise provide an optimal mix of assets. However, URS believes it should consider both asset allocation and transaction costs. Transaction costs are extremely important and the ranges help reflect that concept. For example, in the case of illiquid asset classes such as real estate and alternatives, the ranges are set much wider than for those asset classes that are liquid. The reason is transaction costs. If an alternative asset were to fall outside its range, the transaction costs to bring it back within range are enormous. It is important to note that the bulk of transaction costs incurred is not the commission paid to sell the asset but the gain/loss on the sale of that asset. Thus, moving an illiquid asset class could result in a substantial loss if buyers perceive that the investor must sell the asset just to rebalance. The loss could easily cost more than the benefit of reallocating assets.

Discussion Item 4

Chapter II - Consider Reducing the Amount Allocated to Illiquid Classes

Background of Alternative Investments and Real Estate

There are no two pension plans that are alike. The unique characteristics of a plan create circumstances where allocation to various asset classes will differ. As stated earlier, different benefit schedules, ratios of active to retired employees, compensation levels, etc., make the liability structure of each pension plan different.

The URS plan is well funded. Since there are no pressing liquidity needs for URS, it makes sense to invest in illiquid asset classes if the investment can improve returns, lower volatility, or both.

Real estate and alternative investments are less liquid than stocks and bonds. Dollar for dollar, more time is required to supervise these two asset classes than to oversee stock or bond portfolios. URS is fortunate to have a competent investment staff with the skills required to provide this oversight.

Therefore, over a decade ago the Board created a structure to allow investments in illiquid assets based on the following:

- There is no liquidity requirement for the fund in the foreseeable future.
- The investment staff has the skill set to manage such a program.

Looking back over the decade, the real estate program has delivered a compound return of 10.48%. During the same period, the alternative program has delivered a return of 12.17%. Both programs have out performed and complemented URS stock and bond investment programs as illustrated in Figure 9.

Figure 9

Ten Year Annualized Cumulative Attribution Effects

Asset Class	Effective Weight	Avg Trgt Weight	Actual Return	Target Return	Manager Effect	Asset Allocation
Domestic Equity	39%	36%	9.34%	8.87%	0.17%	(0.01%)
Domestic Fixed-Income	22%	20%	6.96%	7.51%	(0.11%)	(0.16%)
Real Estate	9%	11%	10.48%	9.53%	0.06%	0.04%
International Equity	17%	20%	5.07%	3.38%	0.32%	(0.11%)
Int'l/Global Fixed-Income	6%	6%	7.08%	6.64%	0.00%	0.00%
Alternative Investments	6%	7%	12.17%	15.00%	(0.20%)	(0.02%)
Cash Composite	1%	0%	5.46%	5.46%	0.00%	(0.03%)
Total			**8.05% =**	**8.07% x**	**0.24% x**	**(0.26%)**

Historical Correlations

Alternative investments and real estate have significantly lower correlations to URS stock and bond programs. In Figures 10 through 13, the historical correlations of URS alternative investments and real estate are compared against the other major asset classes.

Figure 10 shows that the ten year average correlation for alternative investments against domestic equities has been -0.2; for real estate the ten year average correlation has been approximately 0.0, i.e., no correlation.

Figure 10

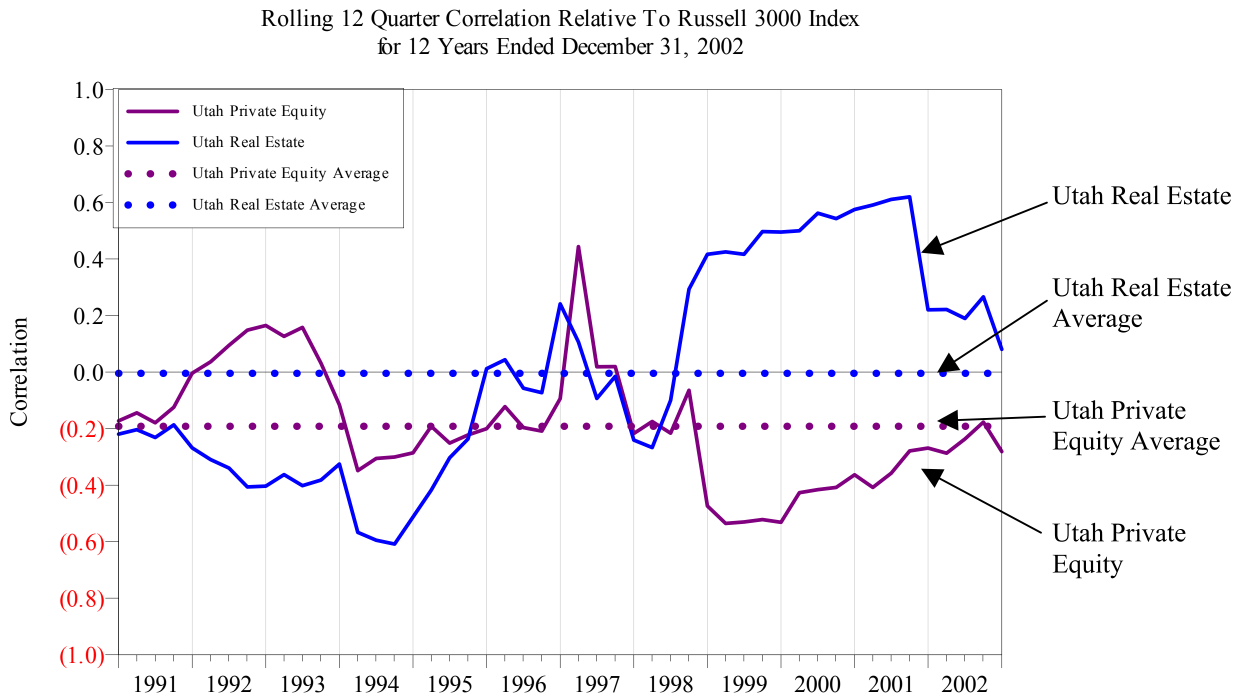


Figure 11 shows that the ten year average correlation for alternative investments against international equities has been approximately -0.15; for real estate the ten year average correlation has been approximately 0.0, i.e., no correlation.

Figure 11

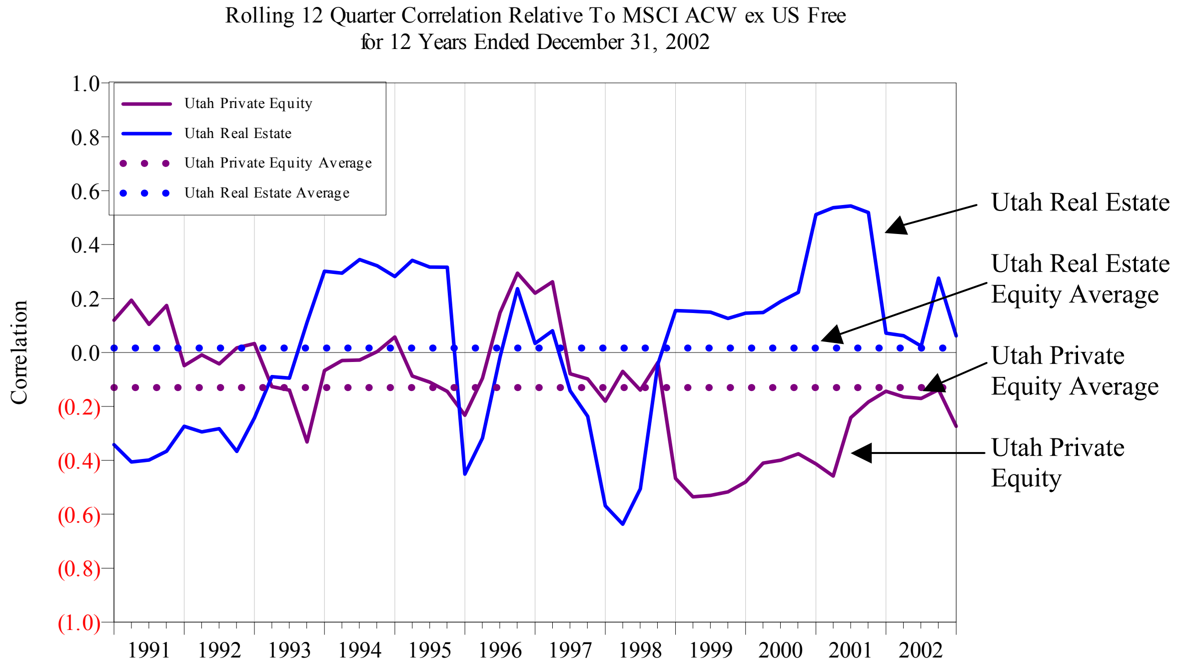


Figure 12 shows that the ten year average correlation for alternative investments against domestic fixed income has been approximately -0.1; for real estate the ten year average correlation has been approximately -0.03.

Figure 12

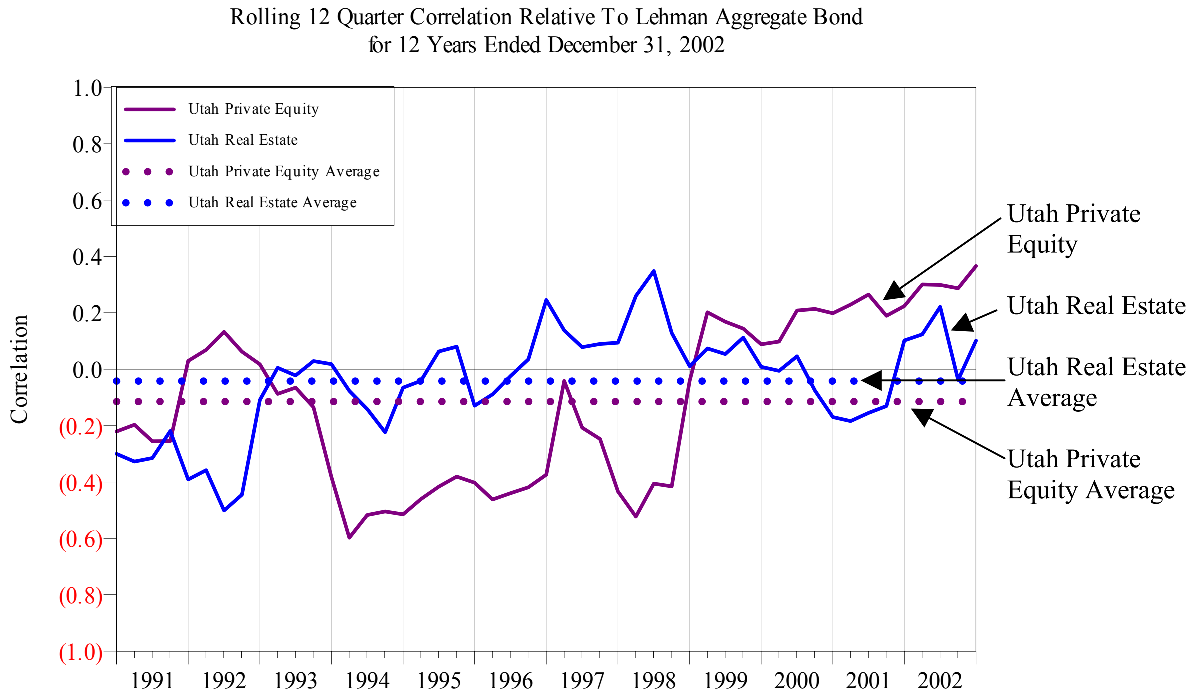
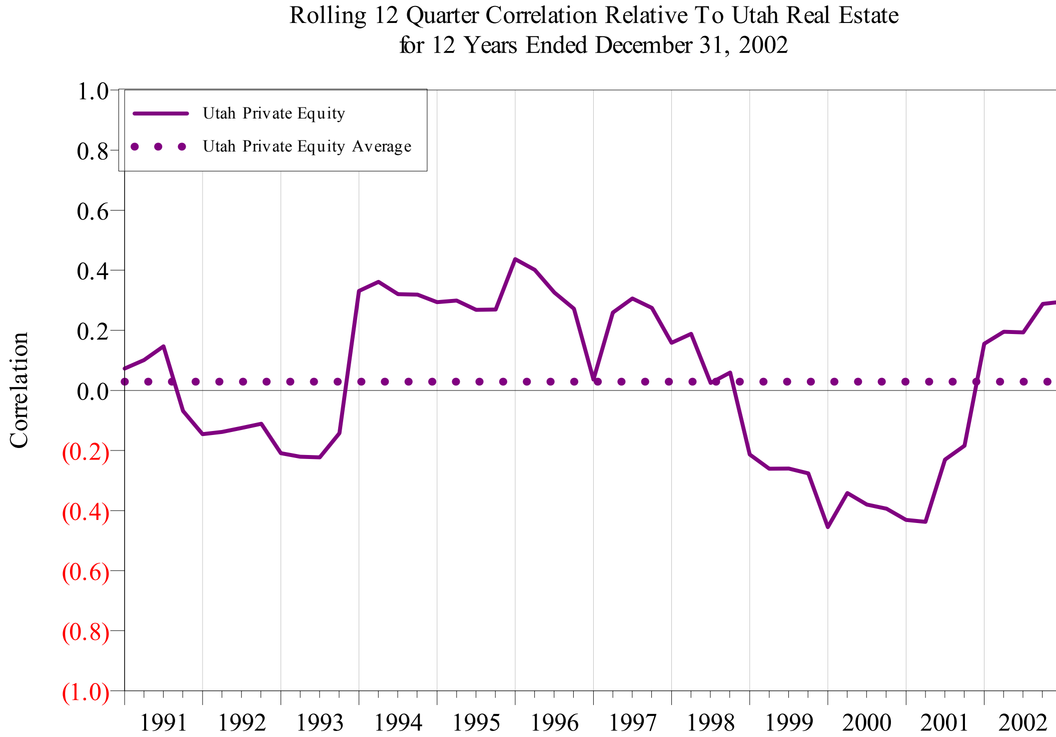


Figure 13 shows that the ten year average correlation for alternative investments against real estate has been approximately 0.02.

Figure 13



Figures 10 through 13 demonstrate that the correlations between alternative investments and real estate and the other asset classes are extremely low or even slightly negative. Thus, these two asset classes add additional diversification to the URS investment fund thereby lowering its risk while providing additional return.

Projected Correlations

Looking forward, the 2003 Correlation Matrix provided by URS' consultant in its Asset / Liability study (Figure 14) shows the correlations of the major asset classes. The projected correlations continue to show that alternative investments and real estate provide diversification thereby lowering the overall risk of the investment fund.

Figure 14

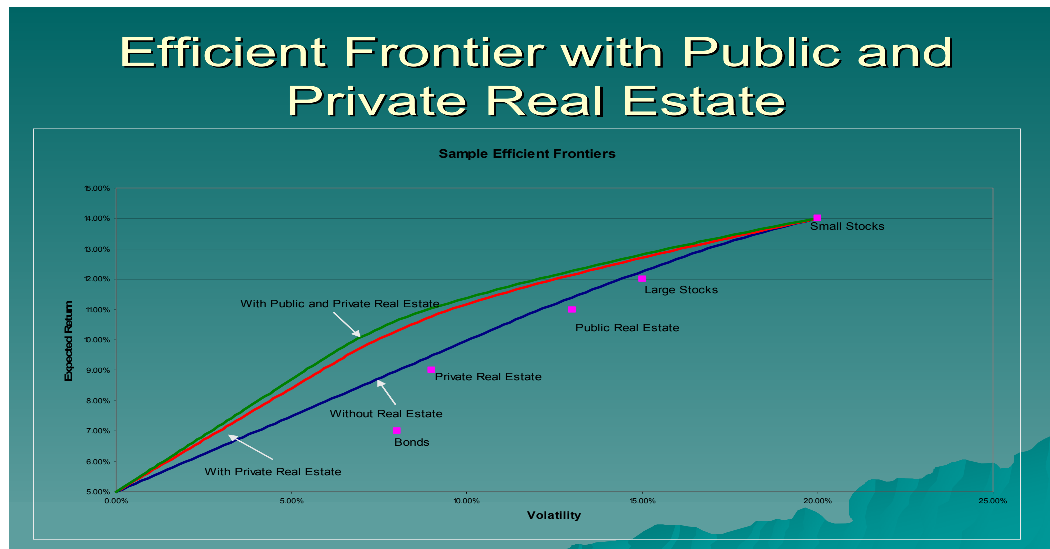
2003 Correlation Matrix

	Dom Equity	Int'l Equity	Dom Fixed	Global Fixed	Real Estate	Alt Inv	Cash Equiv	Inflation
Broad Domestic Equity	1.00							
International Equity	0.72	1.00						
Domestic Fixed Income	0.25	0.22	1.00					
Global Fixed Income	0.05	0.22	0.45	1.00				
Real Estate	0.62	0.50	0.20	0.06	1.00			
Alternative Investments	0.64	0.63	0.20	0.12	0.45	1.00		
Cash Equivalents	-0.12	-0.25	0.30	-0.05	-0.06	0.07	1.00	
Inflation	-0.15	-0.23	-0.25	-0.04	-0.13	-0.13	0.28	1.00

Real Estate Allocation Increase

Efficient frontiers have previously been discussed. Figure 15 demonstrates that by adding both public and private real estate to a portfolio, returns increase with virtually no increase in volatility or risk. Thus, the efficient frontier is enhanced by adding real estate to an investment portfolio.

Figure 15



After considering the Asset / Liability study presented in February 2003, the Board, in its March 2003 meeting, elected to increase the allocation to real estate by 1%, moving the target allocation to 10%. This decision was made because of the higher return expectation for real estate as noted in the capital market assumptions shown in the Asset / Liability study prepared by the URS consultant.

Discussion Item 5

Chapter II- Changing Policy Targets

The decision to add global fixed income in 1998 was a diversification move. The Board approved the investment manager search specifications. During the review of the investment manager search criteria, two facts were presented:

1. Global fixed managers vary their allocations between domestic and international bonds; and

2. The consequence of the addition of global fixed managers could be an increase in non-U.S. bond exposure at the expense of domestic fixed income.

Once the Board approved the search criteria and the search was completed, the consultant wrote staff confirming a change in asset allocation targets. This practice is consistent with the hierarchy of decisions:

1. The potential change in asset allocation was discussed with the Board. Because global bond managers shift allocations between non-U.S. and U.S. bonds on a tactical basis it was not possible to quantify the exact level of allocation change.

2. The Board approved search specifications. In so doing, the Board acknowledged that a change in asset allocation was inevitable, but that the degree of change would be influenced by an analysis of the historical behavior of the firms hired.

3. The Board recommended the selection of two global fixed income managers. The consultant examined the likely impact of these firms' tactical strategies on the longer-term allocation and recommended the changes in the Report.

Discussion Item 6

Chapter II - Fund Risk and Return Affected by Global Managers

The Report “estimate[s] that if the $800 million invested in global fixed income had been left in domestic fixed income as required by policy, the fund may have earned $50 million more than it did between March 1998 and September 2000.” From October 2000 through December 2002, global fixed income was the best performing asset class for URS and the total return for global fixed income exceeded that of domestic fixed income by over 8%. URS estimates that the allocation to global fixed income for the period from October 2000 through December 2002 resulted in an additional $57 million in return when compared to an investment in domestic fixed income.

Discussion Item 7

Chapter II - Reclassification of Fund Manager

The Report expresses concern that the reclassification of a fund manager from alternative investments to domestic fixed income was done in an arbitrary manner without proper consideration regarding the appropriateness of the asset class in which it was placed. The classification of investments into a specific asset class is sometimes unclear and, therefore, it is possible for the same investment to be appropriate for more than one asset class. For example, some public pension funds place real estate investment trusts (REITs) into the real estate asset class and other funds place REITs into the equity asset class. In regard to this fund manager, some institutional investors place it within the domestic fixed income asset class and other institutional investors place it within the alternatives asset class. This fund manager contains material characteristics representative of both the domestic fixed income and alternative investments asset classes and therefore could reasonably be allocated to either investment class.

To understand URS' original classification and subsequent reclassification of this fund manager, it is critical to understand the characteristics and evolution of this investment. When URS investment was made with this fund manager, the exact portfolio characteristics for this limited partnership, which would evolve over time, were not clear. This fund manager had the latitude to invest in securities ranging from common equity to senior debt. The initial target portfolio, as originally envisioned, consisted of 25% subordinated debt, 30% preferred stock, 25% common stock and 20% other types of investments such as pay-in-kind and collateralized debt obligations. However, from the outset this fund manager stated that the "mix could vary at any point in time and is dependent upon the form of the investment and the other components of the capital structure in transactions in which the account invests." Based upon the target mix of the portfolio at inception and because investments were made through a limited partnership, it was logical to initially place this fund manager in the alternative investments asset class. As the portfolio evolved, it became increasingly characterized by privately placed high-yield debt securities. In fact, by March 31, 2000, investments by this fund manager consisted almost 100% of debt securities and, as summarized in Figure 16, its portfolio had characteristics closely aligned with high yield fixed income.

Figure 16

Fund Manager From Inception Through December 31, 1999		
	Returns	Standard Deviation
Fund Manager	9.54	6.92
Lehman Brothers Corporate High Yield	6.97	4.95
Lehman Brothers Corporate High Yield Intermediate	6.71	4.97

Based upon the composition and characteristics of the fund manager's portfolio, URS' investment consultant concluded that "it is reasonable and appropriate to reallocate the [fund manager] . . . to the fixed income portion of the Utah Retirement Systems portfolio."

To further bolster its position that this fund manager had no legitimate space in the domestic fixed income asset class, the Report compared expected returns and expected risks from the 2000 asset allocation study for the alternative investment asset class and the domestic fixed income asset class. The comparison implies that the alternative investment class is homogeneous and as a result, it is logical to project the expected return and risk characteristics of this asset class onto this fund manager. The alternative investment class is not homogeneous in structure and it contains substantial allocations to venture capital, which is not part of this fund manager's investment strategy. This fund manager uses a mezzanine strategy and URS would expect its return and risk profile to be lower than other components of the alternative investment class. Figure 17 compares the expected returns and expected risks (standard deviation) per Figure 9 of the Report for the domestic fixed income and alternative investment classes to the returns and risk (standard deviation) for this fund manager from inception through December 31, 1999.

Figure 17

Comparison Of Fund Manager To Domestic Fixed Income And Alternatives		
	RETURN	RISK
Fund Manager	9.54	6.92
Domestic Fixed Income	6.70	5.50
Alternative Investments	11.50	36.00

Figure 17 shows that the return and risk profile for this fund manager falls between the expected return and risk for domestic fixed income and alternative investments. More importantly, it supports URS' position that it was both reasonable and supportable to place this fund manager in the domestic fixed income class.

As pointed out in the Report, this fund manager was reclassified back to alternatives during 2002 because the high-yield debt securities component of the portfolio reduced from near 100% to approximately 50%. The initial classification and subsequent reclassifications were all made with prior review and approval of the consultant and the Board.

In addition, it was determined that best practices based upon Association for Investment Management and Research (AIMR) performance presentation standards would be to present performance returns for a limited partnership investing in private placements on an internal rate of return basis rather than using time-weighted returns. These facts combined with the illiquid nature of the investments led URS staff in conjunction with its consultant to conclude that this fund manager could reasonably be reclassified back to the alternative investment asset class.

Discussion Item 8

Chapter II - Fund Managers Crossing Asset Class Boundaries

The Report states "We identified some other examples where asset class composition may vary from policy benchmarks." This statement is correct. The policy benchmark is constructed using an indexed set of assets and most of the assets of URS are actively managed. Thus, the managers' portfolios will look different than the assets in the policy benchmark. In fact, some of the indexed assets in the policy benchmark are unavailable for investment or are so numerous it would not be practical to mirror those particular benchmarks. Thus, it would not be possible for URS to mirror the policy benchmark. URS expects the composition of each asset class to be different. It is the only way for the active managers and URS to out perform the policy benchmark.

Once a mandate is chosen, the Executive Director will hire an active manager to invest for that particular asset class mandate. A set of investment policy guidelines is given to the manager. It is not the responsibility of URS to dictate the individual assets of the active manager. If that were to happen, URS would then impose a sell discipline on the manager. Studies have shown that restricting a manager too much can backfire and significantly reduce returns.

Risk is controlled through tracking error to the manager's respective benchmark. Tracking error is controlled in one of two ways. First, the active manager must out perform the benchmark and also be above median against its peers over a reasonable period of time. This assures URS that the manager will not deviate too far from the benchmark and peer group unless it can be shown that the manager's excess returns justify the risk. Second, URS restricts the tracking error of the manager as is the case regarding the domestic equity enhanced index managers.

When appropriate, URS will further reduce the risk to the portfolio by hiring two different managers for the same asset class mandate. Both managers have the same mandate but will achieve their returns with different processes. URS views this as additional diversification in manager selection. If one manager does poorly the other manager might do well. Their approaches and processes are different and their portfolios are not identical. Both portfolios are different as compared to each other and are different as compared to the policy benchmark. For example, the Report notes "A domestic equity enhanced index fund manager invests in foreign currency markets." The Report states that this may create more risk. In fact, in this particular example, the manager that does invest in foreign currency markets is only allowed to use 5% of its capital in doing so and URS restricts the portfolio tracking error to 150 basis points of the index, the exact same restriction put upon the other domestic equity enhanced index manager that doesn't invest any money in foreign currency markets. Thus, both managers have the exact same risk parameters yet will achieve their return objectives using different approaches. Both managers have proven track records following their approaches in achieving their objectives.

The same argument holds true for the second example cited in the Report. "A domestic small / mid equity fund manager also invested 20.5 percent of his allotted funds in large cap

stocks and 16 percent in international equities." It is important to note that the manager does not invest in international equities. Rather, he invests in American Depository Receipts which are foreign companies traded on the New York Stock Exchange in U.S. dollars, thus eliminating the foreign currency risk of international equities. Again, the tracking error of this manager is controlled based on his out performance to the benchmark and his peer group. Over the last 12-3/4 years, this particular manager has been in the 11th percentile against his peers whereas the benchmark has been in the 51st percentile. An "information ratio" is computed to determine how consistently the manager can out perform the benchmark given the tracking error it maintains. The information ratio for this manager is .48 whereas the median information ratio is .15. Thus, the manager has added value to the URS above any additional risk taken as it relates to his benchmark.

URS disagrees with the comment made in the Report that "One of the Board's investment objectives is to maintain a risk level commensurate with the total fund benchmark." One of the Board's investment objectives is to beat the policy benchmark which means the risk level will be different rather than commensurate with the total fund benchmark. That is not to say that URS is not concerned with the overall risk to the portfolio as it relates to the benchmark. URS controls the overall risk as it relates to style, size, assets, etc. through Asset / Liability studies and manager structure analysis. If one manager's asset selection causes it to deviate from its style or size slightly from the policy benchmark, the manager structure analysis will capture that style or size bias for the investment fund. The Board will set targets for these style and size bias amounts with acceptable ranges for deviation that will assure that URS controls the overall risk as it relates to the policy benchmark.

To summarize, it is not the goal of the staff or Board to control the risk of the investment fund of URS on a micro basis by controlling the individual asset purchases or sales of the fund manager. Risk is controlled using other tools that are applied on a macro basis to the investment fund.

Discussion Item 9

Chapter II – Rebalancing

URS agrees that a formal rebalancing policy should be established. Rebalancing is important because it can reduce tracking error which keeps URS on the efficient frontier established by its Asset / Liability study. However, rebalancing incurs transaction costs which can be very expensive and cause a loss of return. Therefore, the important questions to answer are: When should rebalancing occur? How often should rebalancing take place? How far to rebalance?

There have been a number of studies done in this area by consultants, academics and research departments of investment management firms. URS has studied a number of articles written on the subject, talked with our consultant and investment managers, and polled most public pension plan sponsors. Most public pension plan sponsors, although having formal and informal rebalancing policies, have not studied the literature in depth to make an informed decision. In light of the above, URS has researched the "best practices" in this area. URS is currently in the process of implementing these best practices as follows:

- Establish, in writing, a formal rebalancing policy that is approved by the Board;
- Address in the rebalancing policy not only asset classes but other areas important to the portfolio such as style bias, size bias, etc.;
- Include in the rebalancing policy the determination of ranges of each asset class, style bias, etc. in conjunction with an Asset / Liability study and manager structure analysis. In addition the calculation of the ranges should take into consideration risk tolerance, cost of trading into or out of the asset class to be rebalanced, including market impact. Also to be considered are the volatility of the asset being rebalanced, the volatility of the investment fund, and the correlation between the asset and the investment fund;
- Consider transaction costs in the rebalancing policy. For example, set wider ranges for illiquid asset classes because the cost of rebalancing illiquid assets can be prohibitive;
- Perform rebalancing any time any asset class, style, size, etc. falls outside of its range. Rebalancing should be range based, not calendar based; and
- Rebalance back to the mid-point between the target and outer edge of the range once the asset or style or size, etc. falls outside the range. Studies have shown that this is the most optimal cost / benefit procedure.

Discussion Item 10

Chapter III – Real Estate Portfolio – Leverage and Opportunistic Investments

Leverage is an important tool. If leverage were not allowed, the real estate portfolio would be more similar to the benchmark, but it would take away one of the tools staff can use to perform better and it would make it more difficult to outperform the benchmark. Benchmarks are meant to be compared with the performance of active management, but not followed exactly. Active management does not pursue a process of replicating the benchmark; otherwise it would be an index fund. An index fund in private real estate is not an option, because URS cannot invest in all the assets in the benchmark. Active managers use techniques to try to enhance their returns and outperform their benchmark. In a similar way, the real estate staff and its advisors improve their returns above the benchmark by using leverage, opportunity funds or other anomalies in the market place.

Regarding opportunistic investments, research was also completed in the Strategic Plan to determine how much opportunistic investment the peer group of pension funds has. This ranges from approximately 10% to 30%. At less than 30%, URS is within this range. Again, in order to be competitive with the peer group, URS must use similar mixes of investment risk.

Discussion Item 11

Chapter IV – Alternative Asset Valuations

URS is aware of some of the difficulties connected with this asset class. For that very reason, URS has engaged consultants with expertise to help in monitoring the value of the private equity investments. URS believes it would be helpful to discuss the process used to value the alternative investments. The following information regarding the valuation process is provided by one of URS' fund managers:

1. Quarterly and Annual Valuations

"We, on behalf of all of our clients, receive unaudited quarterly financial statements and an audited annual financial statement for each partnership investment in which our clients have made an investment. These financial statements include a schedule of portfolio company investments which lists each portfolio company, the securities owned by the partnership, the cost basis of the securities and the general partner's estimated value of the investment. The valuation of privately-held investments is a difficult task given the absence of a liquid market for these securities. As such, while many have described the valuation process that general partners undertake to ascribe interim valuations for their privately-held portfolio companies as more art than science, there do exist some general industry guidelines that help the general partner in the valuation process.

General Industry Valuation Guidelines - Venture Capital Partnerships

When a venture capital partnership makes a new investment in a portfolio company, the investment is valued at cost. After a subsequent investment is made into the same portfolio company, and that subsequent round of investment was lead by a new, sophisticated third-party investor group, then the general partner will generally re-value its investment based on that most recent round of financing. In the absence of a new investment round, it is unusual for an investment to be re-valued above cost, unless the company has completed an initial public offering or the company has entered into an agreement to be acquired. Should the portfolio company encounter operational difficulties or if the general partner believes that the company is performing behind plan, a partnership may choose to value that company below its investment cost (i.e. 75% of cost, 50% of cost, 25% of cost). Since it is not uncommon for two or more venture capital partnerships to invest in the same portfolio company, quarterly valuation differences may arise. In certain circumstances, these interim valuation differences may be appropriate. For example, if one venture capital partnership initially invested in the company before the other partnership and/or owns a different security, then the difference in the security may justify an interim or even permanent difference in valuation. In situations where the venture capital partnerships invested at the same time and own identical securities, valuation differences may arise periodically, as some partnerships may chose to re-value

their investments more conservatively. This type of valuation difference may only last one or two quarters, as the consensus of the investor syndicate may lead to a more consistent valuation or, if a round of financing is completed, then the investors would use that round of financing to value their investment. Nevertheless, the ultimate valuation will be determined by the final exit value that is achieved via sale, public offering or liquidation.

General Industry Valuation Guidelines – Buyouts and Special Situations Partnerships

When a buyout or special situations partnership makes a new investment in a portfolio company, the investment is valued at cost. Unlike venture capital investments, most buyout and many special situations investments generally do not require a series of subsequent rounds of financing to provide interim valuation reference points. Thus, consistent with general industry practice, buyout and special situations investments are generally held at cost, unless the general partner has decided to reduce its value due to disappointing performance. On occasion, some buyout and special situations partnerships may, after several years of ownership of the investment, use an EBITDA (Earnings Before Interest Taxes Depreciation Amortization) multiple (less some discount for illiquidity) to arrive at a valuation for their mature, cash flow positive portfolio company investments.

Portfolio Company Valuations in the Current Environment

It is generally acknowledged that in the late 1990s, both public and private equity valuations reached unsustainably high levels. The public equity markets turned down early in 2000 and this began influencing private equity valuations in 2001 and 2002. Private equity partnerships, particularly venture capital partnerships, were faced with the situation whereby many of their technology investments had raised capital at unusually high prices in the late 1990s. These valuations were not realistic in the environment of 2001 and 2002, reflecting the downturn in public equity prices, the virtual absence of the initial public offering (IPO) market, limited merger opportunities and reduced prices on financings for existing private equity companies. Therefore, these partnerships reduced the values of their existing portfolio companies to much lower, but more realistic levels.

Summary

Since interim valuations include an element of judgment by the general partners, the ultimate performance of each private equity partnership cannot be determined until the partnership has exited many of its investments and returned a meaningful amount of capital back to its investors. This statement is supported by Venture Economics, a leading information source of private equity data. According to Venture Economics, partnership investments less than four years of age are deemed to be too recent to be indicative of long-term performance.

2. Factors Mitigating Aggressive Interim Fair Market Values

There are several considerations that institutional investors in private equity partnerships (venture capital, buyouts and special situations) should consider when evaluating interim portfolio company valuations reported by the partnership.

A. Most private equity partnerships have an advisory committee that consists of limited partners. We serve on more than four dozen advisory boards. One role played by the advisory board is to review and approve the valuations proposed by the general partners. Our managing director's question proposed valuations which do not comply with general industry standards. We, like most other long-term sophisticated investors in the asset class, have been quite proactive in advising general partners to report conservative valuations.

B. The general partner's current compensation, the annual management fee, is not a function of the interim portfolio company valuations. Rather, the annual management fee during a partnership's investment period is typically a percentage of committed capital (i.e. 1.5% of committed capital). After the investment period is completed, the management fee is typically a percentage of committed capital, reduced by the cost basis of all realized investments, or invested capital. In some cases, the annual management fee is a budget-based fee approved by the advisory board of the limited partners. The compensation received by the general partner which does not come from the annual management fee is commonly referred to as "carried interest." Carried interest reflects a percentage of net realized gains from portfolio companies that the general partner is entitled to receive over the life of the partnership. Thus, the interim valuation of an unrealized portfolio company does not generate any compensation to the general partner.

C. We conduct an extensive due diligence process during the evaluation period of a prospective private equity partnership. One of the factors that we consider in its evaluation process is the valuation methodology used by the general partner group under review. Our conservative approach generally weeds out partnership groups which place aggressive valuations on their privately-held portfolio companies. Private equity partnerships which seek to attract institutional investors will not succeed if they have a reputation for consistently providing inflated interim values to their limited partners."

The Report states that different venture capital firms sometimes report inconsistent values for the same companies. URS reviewed its partnerships and found 67 companies were valued by multiple partnerships. Of these multiple valuations, 46 or 69% valued the companies the same. Of those that valued them differently, almost all can be explained based upon the principles the fund manager enumerated above. The Report correctly cites the one example that was presented to the Board by the fund manager as a rare exception. The fund manager wanted the Board to realize how difficult it is to value companies that were started during the technology bubble of

the late 1990s as noted in their comments above. This particular firm was financed with only one round of financing. Thus, there were no subsequent rounds that could be used to update the valuations from follow on investors.

Also, this firm was started in 1999 at the height of the bubble period when valuations for both public and private equity were extreme. The company is completely financed and operating today. This company is a telecom company. How should it be valued? One partnership stated because it needs no additional financing and is operating on a sound basis, it should be valued at cost. Another partnership marked down all their investments in telecom companies that were started during the bubble because most have gone out of business and they feel they need to be conservative. The other firm marked the value as a percentage of cost recognizing that the company is operating and not going out of business but is in a very overvalued industry. Notice that all three firms recognize that the company is a going concern. But because of the extreme market conditions of the late 1990s, a very rare event, the firms have different thoughts on how the company ought to be valued. URS' fund manager pointed out to the Board that valuations prior to the bubble were not this wide simply because the markets have been much more rational in the past.

URS and its fund manager do not take the valuations reported by the general partners at their face value. As has been discussed above, an extensive review process is used with direct input from our fund manager to the general partners in valuing the individual companies in the respective partnerships.

Discussion Item 12

Response to Chapter IV - The Periodic Return on Private Equity

URS agrees that the best way to evaluate the alternative asset program is using the internal rate of return. In fact, that is exactly how URS measures the program. URS fund managers report performance using the internal rate of return. The annual report to the Board by the consultant uses the internal rate of return as the performance measurement. Although the quarterly report from the consultant reports time-weighted returns, URS judges the success of the program based on the internal rate of return.

The following quote from a URS fund manager provides insight into the performance measurement of private equity:

> "We capture daily cash flows (capital calls, cash or stock distributions) to and from each partnership investment. Using these cash flows and incorporating the capital account balance as reported by the general partners in the quarterly and annual financial statements, we calculate a net compound annual internal rate of return (Net IRR). As stated above, the performance of any particular partnership which is less than four years old is generally considered too young to be indicative of the partnership's ultimate performance. As the underlying investments progress, qualitative assessments about the general partner group, their strategy and the underlying portfolio may begin to be more meaningful. As cash is returned to the investors, the Net IRR will become more relevant. If we are concerned about the prospects of a particular partnership investment, we will conduct further due diligence with the group, assess the team, strategy, portfolio and provide input to the general partner. Each partnership investment is monitored by a minimum of two investment professionals (primary and secondary monitor)."

Discussion Item 13

Chapter IV – Fund Manager's Potential Conflicts of Interest

The Report cites specific circumstances which raised concerns of whether the existing conflict of interest controls were adequate or were properly enforced. One concern was a situation where the percentage of an investment that was required to be purchased by a third party investor was modified. This modification was only made after the relationship had been in place for a long period of time and the fund manager had proven itself both in terms of returns and ethical conduct. This modification was also approved by $900 million worth of new commitments from other institutional investors. However, URS will review its conflict of interest policies to determine the circumstances under which investment contract may be modified as they relate to potential conflicts of interest.

The Report highlights a specific transaction where approximately $15 million in fees were generated. These fees were paid by the company that was being restructured to obtain financing, not by the URS partnership. The Report incorrectly states that the fund manager received a portion of those fees. All of those fees were paid to affiliates over which the fund manager had no control and had no direct financial interest. The payment of such fees is normal in the course of obtaining private debt or equity financing.

The Report also questions whether the annual disclosure required of the fund manager was consistently provided. This item has been addressed with the fund manager. The investment compliance officer will ensure ongoing compliance.

Discussion Item 14

Chapter IV - Evaluate Adequacy of In-house Resources Devoted to Alternative Investments

The Report recommends that, "the Retirement Board should consider whether additional in-house monitoring and supervision are needed for its alternative investments class." To assist the Board in deciding upon the proper level of in-house monitoring and supervision, URS believes it is important to outline the current monitoring and supervision provided by external resources. The challenge for URS will be to enhance the current monitoring and supervision provided by in-house resources, without excessive duplication of the work performed by the fund managers and the alternative investments consultant.

The Report points out that URS currently places significant reliance on outside consultants to assist in fund responsibilities of the alternative investment program. To understand why fund managers and the alternative investments consultant play a significant role in the program, a brief history of the alternative investments program would be helpful. Prior to retaining our fund managers and alternative investments consultant, URS assumed direct responsibility for the selection and monitoring of private equity limited partnerships. As the commitment to the alternate investments asset class grew, URS came to the conclusion that it could improve its access to top quality private equity limited partnerships, enhance monitoring and supervision, and augment organizational expertise through the use of fund managers and an alternative investments consultant. The use of these external resources was viewed as a mechanism to assist in the prudent management of this complex asset class. Overviews of the monitoring and supervision provided by fund managers and alternative investments consultant are provided in the following paragraphs.

Fund Managers

URS fund managers perform a number of functions relating to the supervision and monitoring of the alternative investment program. These supervision and monitoring functions include:

Due Diligence - The fund manager conducts extensive due diligence prior to committing URS capital to private equity partnerships. Some of these steps would include: meeting with the general partners to understand and review their process for investing the limited partner's capital, reviewing key terms and conditions of the partnership agreement, evaluating the long term performance record of the general partners, and making certain the partnership is an appropriate fit within program goals.

Accounting and Performance Records - Detailed accounting and performance records of private equity investments are maintained by the fund managers. The accounting records capture daily cash flows to and from each partnership investment, partnership commitments, and asset valuations based upon financial statements provided by the general partner.

Quarterly Reports - Each quarter the fund managers provide a comprehensive report to the alternative investments consultant and URS which contains: 1) a narrative of significant activity in the account during the quarter, 2) detailed accounting records of private equity investments, 3) performance returns by partnership and for the portfolio, 4) partnership reports which provide a summary of the composition and investment strategy of each partnership, and 5) a schedule of annual limited partnership meetings.

Advisory Committee - Most private equity partnerships have an advisory committee consisting of limited partners. The fund managers sit on these advisory committees to help ensure that the interests of limited partners such as URS are properly represented.

Tactical Plan - The fund managers provide the alternative investments consultant and URS with an annual tactical plan for review. The tactical plan includes projected funding and investments for the upcoming year.

Performance Review - Fund managers meet with the Board on an annual basis to review performance and status of investments. This meeting is conducted in conjunction with the annual performance review by the alternative investments consultant.

Alternative Investments Consultant

In addition to providing URS with expertise in the alternative investments asset class, the URS alternative investments consultant provides critical monitoring and supervision to the alternatives programs such as:

Policies and Procedures – The alternatives consultant develops policies and procedures for URS review and approval which address the major components of the private equity program: partnerships, direct investment, and co-investment.

Deal Review – New private equity investments made by the fund and direct investment managers are reviewed by the alternatives consultant to make certain they strategically fit into the portfolio. The alternatives consultant provides URS with general insight and opinion on the compliance of the proposed investments with the program policies and strategic and tactical plans. The alternatives consultant provides to URS a formal memorandum and, if necessary, additional commentary on the proposed investment.

Strategic Plans – The alternatives consultant prepares strategic plans for URS review and approval to help ensure long range goals of the alternative investment program are met.

Tactical Plans – Annual tactical plans completed by fund and direct investment managers are reviewed by the alternatives consultant. This includes reviewing projected funding, diversification, comparing tactical plans to strategic plans, market conditions, and prospective investments. The alternatives consultant provides URS with a formal memorandum containing its comments and recommendation to adopt or modify the tactical plan.

Quarterly Review – Detailed reviews of quarterly accounting and performance information provided by fund and direct investment managers are performed by the alternatives consultant. This review is summarized in a formal memorandum and forwarded to URS.

Performance Review – The alternatives consultant annually presents a performance review of the alternatives program to the Board. Historically this performance review is presented in conjunction with the annual fund and direct investment managers review.

In-house Monitoring and Supervision of Alternatives

In the past, one individual has served as the alternatives investment point person for URS and has coordinated their activity with that of the fund managers and the alternative investments consultant. As previously stated the challenge to URS is to enhance the current supervision and monitoring of alternatives by in-house resources without significantly duplicating the supervision and monitoring provided by the fund managers and the alternatives consultant. Suggested areas in which additional in-house resources could be devoted to the monitoring and supervision of alternative investments include:

1. Periodic internal compliance reviews to ensure alternative investment policies and procedures are being followed.

2. Annual visits to fund managers to evaluate account performance, monitoring and control procedures.

3. Periodic visit to the direct investment manager to review supporting investment documentation and control procedures.

4. Staff attendance at selected annual meetings of private equity limited partnerships.

5. Periodic testing of investment valuations to determine if reported valuations are reasonable and consistent.

6. More active involvement in the preparation of the tactical and strategic plans.

7. Increased monitoring of potential conflicts of interest.

8. Working with alternatives consultant to provide more frequent updates to the Board regarding market conditions and asset class performance.

Discussion Item 15

Chapter V - Consultant's Potential Conflicts of Interest

The Report expresses concern regarding potential conflicts of interest in the consultant's search process. It states that the process is reasonable but a potential conflict of interest exists because the consultant receives revenue from fund managers that it recommends to URS. The Report recommends that the consultant disclose more information.

The consultant is a private company and therefore is under no obligation to disclose details regarding fees paid to them by others. As noted in the Report, the revenue generated from fund managers is approximately 20 to 25 percent of total revenue. The majority of revenue comes from its consulting business, representing over 50 percent. Thus, loyalty to clients such as URS is a significant priority.

URS asked the consultant to disclose their internal controls that would mitigate any potential conflict of interest. Below is their response from their president:

> ". . . I want to provide in writing information on how we conduct our business. We have provided this information regularly in our ADVs, our RFP responses and when the issue has been raised by Trustees by all clients.
>
> First, let me state very clearly that there is absolutely no legal issue with investment management firms being our clients through consulting relationships or their membership in the Institute. As support for this common sense view, one need only think about other major consulting firms. These major consulting firms actually provide investment management services. They also provide an array of services to investment managers and plan sponsors. Similarly, major multi-product firms with household names provide brokerage, investment banking, money management and investment consulting services to money managers, plan sponsors and individuals. We minimize "potential conflicts" by only providing investment consulting services. We do not manage money or provide investment banking services. We bill exclusively in "hard dollars" (obviously clients may use brokerage recapture arrangements to satisfy their hard dollar bills)
>
> As an SEC registered investment advisor, we regularly file a Form ADV with the Securities and Exchange Commission. URS has been provided with this filing. It describes our business, the nature of services provided and the types of clients served. In addition, we make available to your staff each year a list of all investment management firms we do business with and whether they are an Institutional Consulting Group (ICG) client or a member of our Investments Institute.
>
> The SEC periodically audits registered advisors. Over our 30-year history, the SEC has conducted several regular examinations and never has found any

irregularities. We have never been the subject of a regulatory sanction.

We have approximately 200 investment management organizations that are either clients of our ICG and/or members of our Investments Institute. We regularly disclose our business relationships with these organizations. As an aside they are clearly the leading firms in the business and manage an estimated 80% of this nation's institutional assets. Whenever we conduct a search we specifically disclose whether a candidate is a member of the institute and/or an ICG client. This was done in all searches conducted for URS and for all our other clients. (See the following attachment.)

Either the Executive Director or CIO has participated in all the critical steps in recent searches conducted for URS. URS was provided with a complete listing of the firms screened. Generally URS staff reviewed the results of our quantitative screening, and assisted in developing a large preliminary candidate list. Our internal Manager Search Committee package that included detailed information on all the preliminary candidates was discussed in each search and is on file and available. Our Manager Search Committee, a group of our senior plan sponsor consultants, reviewed the search process, the information on the preliminary candidates, and then identified those firms that were profiled in a detailed search report. The report was presented to the Executive Director and staff. The Executive Director and staff decided which of the finalist candidates to interview.

As an integral part of our efforts to avoid actual conflicts of interest, we maintain separate profit centers. Those individuals who service manager clients have absolutely no involvement with our Manager Search process. No manager is charged to be in our database. Similarly, all of our manager clients are explicitly told in writing that buying any service from us will not affect our search process. We receive no additional compensation from managers who are included in searches nor from those who win searches.

Despite the fact that the money managers who are our clients are among the largest and most highly regarded in the industry, not all of our search winners are our clients. This is documented in the attached disclosures that are included in each search report. Similarly, we absolutely do not have a "preferred list". This is evidenced by the statistics that detail the number of searches conducted, and the number of different firms winning searches (see attachment below). It may also be helpful to note that we limit the number of investment manager members of the institute. We have a waiting list. We limit membership to ensure that there is a good mix of plan sponsors to investment managers at our conferences. The waiting list also serves to reduce the possibility of conflict. We do not have to worry about lost revenue in the event that a manager leaves the institute. Another will take the vacant spot. Obviously by limiting membership, we limit our revenue potential but we believe that this serves the best interests of all institute members particularly the plan sponsor clients.

Managers join the Institute for a variety of reasons. They receive our research, and our database statistics, and attend our conferences (including one that is exclusively designed for money managers). Finally, I think that it is important to note that five other consulting firms all provide similar services to the investment management community. Indeed many consulting organizations that argue that they do not provide any investment consulting services to investment managers provide benefit consulting, actuarial, and compensation studies to money managers and/or are actively involved in the distribution of money management products. My point is not to suggest that others sin. Rather my point is that managing "potential conflicts" is the key requirement. We manage the "potential" through disclosure, separation of responsibilities, and rigorous adherence to a strict code of conduct and ethical behavior.

The Trustees have regularly participated in our Institute meetings and some have attended our college. They have personally seen how beneficial such meetings are. You have received copies of the institute research papers and surveys, and recognize that they are beneficial and educational. The fact that managers pay a fee to receive the research, participate in the conferences, and also have an opportunity to meet plan sponsors and other money managers is not surprising or unusual. Investment managers are active supporters of organizations such as IFE, Pensions 2000, and Institutional Investor Institute. Such organizations are similarly well regarded within the industry. Many used our Investments Institute as a model."

Investment Consultant's Attachment

"We are an independent, employee-owned firm dedicated exclusively to the investment consulting business. We focus all of our resources on assisting our clients in the strategic planning, implementation, and evaluation of their investment programs. Our four lines of investment consulting business are as follows:

(1) Pension & Retirement Fund, Endowment, Foundation, and other Institutional Fund Consulting

Our primary business is providing strategic investment consulting services to Pension, Endowment, Foundation, and other Institutional funds. The services provided in this area are designed to help those institutional investors effectively manage those funds to best meet their specific needs and objectives. We offer information and guidance in the fields of strategic planning, plan implementation, plan evaluation and monitoring, and continuing education. Together, these services constitute a disciplined and comprehensive process for investment decision making and oversight.

(2) Independent Adviser Group

Our Independent Adviser Group (IAG) provides products and services in support of a select group of established, sophisticated and independent consulting organizations. IAG clients include some of the most well respected regional investment-consulting firms, national and regional CPA firms, and national financial services firms.

(3) Investments Institute

Our Investments Institute (CII) is the educational division that provides our institutional investment clients with services ranging from conferences, to research papers and surveys. The Institute is a leading continuing education and research facility serving the pensions and investments industry. The Institute was established in 1980 and its membership has grown to more than 400 leading corporations, foundations, endowments, public funds, multi-employer funds and investment management organizations. Investment Institute clients are invited to attend three conferences annually: the National Conference and the regional breakfast conferences in the spring and fall.

In addition to the Investments Institute, we have formalized our commitment to providing education by establishing The Center for Investment Training, known as the "---- College" (We insert our name as part of the name of the college.) The "---- College", a two and one-half day educational program offered numerous times each year, provides basic-to-intermediate-level instruction on the investment management process.

(4) Institutional Consulting Group

Our Institutional Consulting Group (ICG), which was established in 1988, provides performance measurement services and style reports to approximately 140 investment management firms who use these reports primarily for internal monitoring and marketing. ICG also provides marketing and client service consulting, presentation training, product assessment, education and research to investment managers. The combined institutional assets of the manager clients of CII and ICG represent 75% of the total institutional assets under management.

To avoid any conflicts of interest, the ICG, IAG, and CII operate as separate profit centers within our organization. They maintain their own staff and profit and loss accounting systems. Neither ICG, IAG, nor CII are involved in manager search activities or plan sponsor consulting. The clients of ICG, IAG and members of CII are not entitled to, nor do they receive, any preferential treatment from our fund sponsor consultants. This statement of fact is communicated to each manager, in writing, at the outset of any relationship we establish.

Our success and integrity depends on offering objective, impartial advice free from inappropriate influence of any outside party. To maintain this independence and eliminate the potential for conflicts of interest, we have had the following practices in place for over a decade:

Written Ethics Policy

We have a strong Code of Ethical Responsibility statement that all employees must sign and adhere to at all times. We are very confident that our Code of Ethical Responsibility insures that our clients will not be disadvantaged in any way by our various lines of business. Certain violations may result in dismissal from the firm. We would be pleased to provide a copy of our Code of Ethical Responsibility.

Full Disclosure

We believe in full disclosure of all business activities and relationships. Every year we make available to our clients a complete list of all investment managers who do business with our Institutional Consulting Group and who are members of the Investments Institute. In our manager search candidate reports, our Global Manager Research staff indicates whether or not any manager search candidate included in the report does any business with us.

Peer Review

In services where the potential for conflict of interest may be high — such as the manager search process — we eliminate bias through an internal and formally organized peer review system. Our twelve-member Manager Search Committee, comprised solely of fund sponsor consultants, verifies the accuracy, completeness and objectivity of data gathering, due diligence and evaluation used during the manager screening process. For other services, such as asset allocation or manager structure studies, an independent Client Policy Review Committee evaluates all reports before they are submitted to the client. Our peer review system not only ensures objectivity, but also gives our clients the benefit of our consultants' collective wisdom and experience.

Due Diligence Resources

We maintain one of the highest support staff to client ratios in the industry. Our large technical team of analysts, researchers, systems programmers and data entry personnel provide the most thorough due diligence work in the industry. By conscientiously validating and auditing data, we are able to support our clients' decision-making with accurate and unbiased information.

Investments are increasingly complex and it is unreasonable to expect any individual or small group of individuals to be an expert in a host of areas. A consultant, by definition, is expected to provide expert counsel across a variety of areas. The only way to provide this comprehensive, in-depth, expert assistance is to have a staff of experts; how can an intelligent generalist consultant really fully understand and evaluate complex issues in a multitude of areas? Those consulting firms who can't afford the internal staff must rely on external experts – generally those whose products and concepts are being evaluated. That requirement is a major source of potential conflict – a source that is not a problem for the deep resources of firms such as ours.

Of even greater importance is the personal integrity of our consultants and reputation for corporate integrity that we enjoy. In this era of heightened corporate governance and need for transparency, we want all clients fully informed of our business practices."

We want our current and prospective clients to understand the value our business model brings to each of them. Having the large comprehensive pool of talent and tools required to serve both the fund sponsor and investment management markets is what allows us to provide thorough analyses of the marketplace and in-depth, accurate assessments of the management firms and investment vehicles available.

Our growth since 1973 attests to the confidence our fund sponsor, as well as our investment manager clients, have had and continue to have, in our objectivity and resource platforms."