## Section 3: Improving Accountability in Public Pension Asset Management

The management of pension assets plays an equally important role in the overall health of the public pension system. Both public employees and taxpayers share a strong interest in the investment performance of these plans. Present and future beneficiaries want to be confident that the promised benefits will be paid. At the same time all Minnesota taxpayers bear the cost of investment underperformance.

### How are public pension assets managed?

Table 17 provides a breakdown of the major responsibilities of the two levels of pension fund management:

**Table 17: Pension Fund Decision Making Responsibilities**

| Board Decisions | Fund Management Decisions |
|---|---|
| • Provide for contributions to the fund<br>• Assess long term risk/return trade offs in the securities markets<br>• Establish an appropriate long-term policy mix of asset classes for the fund<br>• Monitor the investment process | • Tactical deviations from policy targets<br>• Active or passive management<br>• "Style" emphasis within asset classes<br>• Selection of portfolio managers<br>• Compensation agreements<br>• Control of allocation drift – rebalancing<br>• Performance measurement and reporting |

Boards of trustees have ultimate fiduciary responsibilities for public pension funds. In the case of the large statewide pension funds—MSRS, PERA, and TRA—a body separate from each plan's board of trustees, the Minnesota State Board of Investment, serves in this capacity. Membership on the board is specified in the State Constitution and is composed of the Governor, the State Auditor, the Secretary of State, and the State Attorney General.

The State Board of Investment and the boards of the first class city teachers' funds approve the investment policies for the pension funds. Investment policies are tailored to the particular needs of each fund. They specify investment objectives, risk tolerance, and provide guidelines for allocating pension fund assets across different types of asset classes (domestic equities, international equities, bonds, etc). Importantly, any asset class in a pension fund (except for alternative investments discussed later in this section) is represented by a benchmark index which tracks the performance of that asset class. For example, investments in large companies can be benchmarked against the Standard & Poor's 500 Composite Index, an index of large company stocks.

Those bodies overseeing the investment of public pension funds ("investment authorities") delegate the implementation of the investment policy to internal pension fund administration and staff and the professional money managers hired by fund administrators. The fund may also establish an investment advisory council to assist in policy implementation and decision-making. Fund administration is responsible for implementing the investment policies, monitoring investment performance and making necessary changes to the investment portfolio as deemed necessary.

**Evaluating Investment Performance**

Annual percent rates of return are the standard measure for evaluating investment performance, but require some benchmarks for comparison purposes. Comparing investment returns to the assumed actuarial rate of return for the fund might seem to provide the necessary information. If the assumed actuarial rate of return is 8.5%, and the investment returns exceed this amount, then the pension fund might seem to be "well managed."

Simply comparing fund performance to actuarial rates of return, however, fails to reflect the returns the fund could or should have achieved. For example, if a pension fund returned an average of 8.5% over a five year period but the stock and bond markets averaged 10% over the same five year period, the pension managers may have underperformed. Conversely, if the fund return over a period of time fell short of the actuarial rate of return but outperformed the markets, fund manager decisions may have benefited the pension fund, even though the overall condition of the fund is worse when measured against the actuarially assumed rate of return.

To understand whether returns from taxpayer contributions are being maximized in accordance with a fund's investment policy, pension fund rates of return should be benchmarked against indices of the board's investment policy rather than against a static actuarially-determined rate of return. By "indices of the investment policy" we mean the indices of the asset classes comprising the fund's investment policy (Standard & Poor's 500, Lehman Government Bond Index, etc.). Fund performance may consistently beat the actuarial rate of return but under-perform against the index benchmarks. This under-performance reduces the relative health of the pension fund, but is also very significant to both taxpayers and employees who want their contributions to the pension system to benefit fully from the asset class returns offered by the investment policy.

Pension funds could ensure that their investment performance matches the market simply by passively investing in the benchmark indices of the asset classes making up their investment policy. Instead, all pension funds actively manage their funds to some extent in an attempt to "beat the market." The best and most rigorous way to evaluate fund management is to compare the returns from "actively" managed funds with the returns available from passively investing in index funds that represent the fund's investment policy. In essence, evaluating pension fund performance in this manner means measuring the "value added" resulting from the decisions of fund administrators and the portfolio managers they hire.

Current reporting on public pension fund performance falls short of this goal. As required by law[56], summary profiles prepared by the Office of the State Auditor for each fund do provide basic information on time-weighted rates of returns, rates of return of fund benchmarks, and asset allocation. Accompanying narrative provides some color on the fund decision-making which has influenced fund performance. However, current State Auditor pension reports fall short in several ways:

*"Focusing on annual rates of return essentially gives each fund a 'fresh start' every new time period. The compounding effect of fund management decision-making over time is lost, as is the resulting value gained or lost through policy implementation in earlier years."*

- They do not provide any means of translating annual rates of return into actual dollar values gained or lost through investment policy implementation.
- There is no quantification of value added or lost as a result of straying from investment policy, investment manager selections, or active portfolio management.
- Annual rates of return fail to capture the evolution of a funds condition over time. Focusing on annual rates of return essentially gives each fund a "fresh start" every new time period. The compounding effect of fund management decision-making over time is lost, as is the resulting value gained or lost through policy implementation in earlier years. (See accompanying sidebar: "Losing Money with Positive Reported Investment Returns".)

In addition, the State Auditor uses SBI average returns over several years as the benchmark to define "under-performance" in evaluating non-SBI funds rather than the non-SBI funds' own investment policies. Despite its reputation for excellent performance and management, the SBI is subject to the same accountability issues as any other state pension fund. For example, the 2005 State Auditor's report noted that with respect to the SBI equity portfolio, "over the past few years, the results of active management have been mixed."[57] Given that taxpayers are ultimately responsible for value lost, it is important to clarify and quantify statements such as this. Taxpayers deserve reports on fund results they can understand.

### Value Added Performance Auditing

Value added performance auditing[58] offers an additional and complementary approach. It answers the question of how much additional pension fund value has been created or lost by the tactical investment decisions of pension fund administrators and their investment managers. It is easy to understand and it increases accountability in public pension management by documenting the value added (or subtracted) by pension fund decision-making. The data requirements are simple and straightforward:

- The pension fund's official investment policy including the percent of funds to be allocated to each asset class
- Monthly asset values for the fund as a whole
- Monthly net cash flows for the fund as a whole (contributions less benefit payments)
- Monthly rates of return for the fund as a whole
- Monthly rates of return for each benchmark index

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[56] Minnesota Statutes 2004, Section 356.219

[57] *Large Public Plan Pension Report for the Year Ended December 31, 2004*, State of Minnesota, Office of State Auditor, page 22.

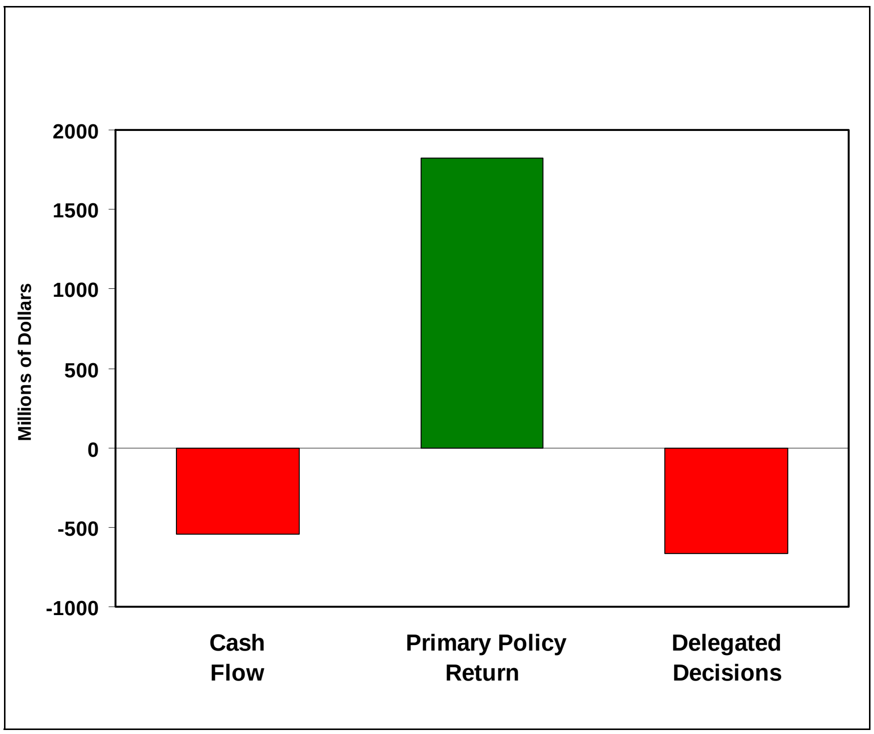
[58] For more information on Value Added Performance Auditing, also known as an Asset Allocation Audit, visit http://www.asset-allocation.com

Importantly, value added audits also reveal the evolution of the period performance, not just the overall result. In period-based performance measures (e.g. one year returns) a one month shift can lead to an entirely different conclusion about the period performance. Value added performance auditing creates trails of monthly data that show how and when the results developed over time.

### Example of Value Added Performance Auditing in Practice

The beleaguered Minneapolis Teachers' Retirement Fund, the problems of which have been a source of significant public and legislative debate, provides an example of value added performance auditing in practice. Using data supplied by the MTRFA, we reconstructed the fund's investment performance for the period from June 1982 to December 2005.[59]

**Figure 12: Minneapolis Teachers Retirement Fund, Total Fund Value Added Summary: June 1982 - December 2005**




*Source: Data provided by MTRFA, analysis by Asset Allocation Incorporated.*
*See sidebar "**Additional Background and Commentary on the MTRFA Value Added Analysis**"*

The first column in Figure 12 represents net cash flow out of the retirement fund—the amount of money paid to beneficiaries net of employee and employer contributions and state aids. The second column is the primary policy return—the value added that the fund would have realized had it invested efficiently in its own policy. In other words, the second column is the return the fund would have realized if it had invested "passively" only in the benchmark indices of the asset classes in its investment policy. The third column represents the increase or loss of value from the tactical decisions made by

[59] See sidebar "Additional Background and Commentary on the MTRFA Value Added Analysis" for a description of this reconstruction and the assumptions used in the calculations.

MTRFA internal administrators and their investment managers. Elements comprising this bar in the graph include:

- Tactical deviations from fund's stated investment policy mix of major asset classes
- Timing and nature of portfolio rebalancing to its policy
- Selection of professional portfolio managers
- Size and timing of the allocations of fund assets to these managers
- Actual security selection by these managers
- Management fees

### Losing Money with Positive Reported Investment Returns

Is it possible for a pension fund to report that it beat its performance benchmark but still lose money? Yes, when money is moved to chase the "hot hand" but performance subsequently takes a turn for the worse. Such a situation also illustrates why focusing exclusively on time-weighted rates of return can be so misleading in evaluating pension fund health.

The following example and excerpt from the book, *The Prudent Investor Act: A Guide to Understanding*, by W. Scott Simon (Namborn Publishing Co.: Camarillo, CA, 2002) illustrates the point:

The following hypothetical, though realistic, example shows how misleading it can be sometimes when investment performance is reported in percentages terms. Consider the fund administrator that retains an aggressive stock manager and allocates $10 million to the manager at the beginning of the year. By the middle of the year the investment manager has realized a 20% gain, increasing the value by $2 million.

This 20% return at mid-year leads the fund administrator to add another $10 million so the trust portfolio now totals $22 million. But in the second half of the year, the portfolio suffers a 10% decline in value, lowering the manager's "time-weighted" performance to 8% for the year

(1 x 1.2 x .9 = 1.08).

If the benchmark index suitable to the trust portfolio were up 7% for the year, most trustees would probably consider the manager's performance quite acceptable. **But the trust portfolio actually suffered a $200,000 loss for the year**:

Gain in first half of year plus loss in second half of the year:

($10 million x 20%) + ($22 million x -10%) = ($2 million) + (-$2.2 million) = - $200,000

**Thus, the portfolio lost dollars even though its manager beat the benchmark in percentage terms**. Such conventional reporting methods—in spite of scrupulous calculation of percentage returns in compliance with the rigorous procedures of the mutual fund industry and the Association for Investment Management and Research—don't expose the contradictions typified in this example or assign accountability for them.

This is why a complementary focus on dollar values is so important. Time-weighted rates of return are essential in evaluating fund performance. Focusing on such return rates effectively protects the portfolio managers from being penalized for the size and timing of cash flow decisions over which they have no control (as in the example above). However, the dollars often lost from these actions are very real and should not be ignored in the overall monitoring process. These shortfalls occur frequently when money is moved from an under-performing manager to an apparently superior replacement. Such decisions impact actual results, usually negatively, but are made by administrators and consultants who rarely reveal the consequences.

Figure 12 shows the effects of MTRFA's active fund management efforts over the past 23 years. Over this period the fund had $543 million in net cash flow withdrawals (which includes contributions, benefits paid out to retirees, etc.) This reduction in fund value was more than offset by the increase in value added available to the fund through its investment policy. If the MTRFA had invested only in the performance benchmark indices of its stated investment policy, $1.78 billion in assets would have been added into the fund's value. However the story does not end there. Of the $1.78 billion available through efficient investment in its own policy, $667 million was not realized due to poor policy implementation and investment decision-making. In other words, 68% of the current $972.5 million deficit plaguing the Minneapolis Teachers Retirement Fund (according to the 2005 actuarial report) could have been avoided with better investment management of the fund's assets.

*"In other words, 68% of the current $972.5 million deficit plaguing the Minneapolis Teachers Retirement Fund … could have been avoided with better investment management of the fund's assets.*

Had this $667 million been available to MTRFA as part of its assets, it would have had a dramatic effect on both the funded ratio and the contribution deficiency. Additional assets of $667 million would decrease the 2005 unfunded liabilities from $972.6 million to about $305.6 million, in turn increasing the funded ratio from 44.61% to 82.60%. Reducing the fund's amortization costs by 68% would have reduced the total contributions required to meet normal and amortization costs from $107.0 million to roughly $49.7 million. Instead of having a $53.9 million deficiency, MTRFA could have had contributions in excess of requirements of some $3.4 million, assuming that all contributions and state aids remained unchanged. With these extra assets, MTRFA would be well on its way to full funding by 2020.

It is crucial to note that this value lost from delegated decisions is independent of:

1) the ups and downs of the investment markets. These effects are reflected in the primary policy return.

2) the employee, employer, or state contributions to the fund. In the case of MTRFA, if more money had been made available to the fund, the negative value added bar would have been larger, assuming that additional resources would not have changed the tactical investment decisions made by fund managers.

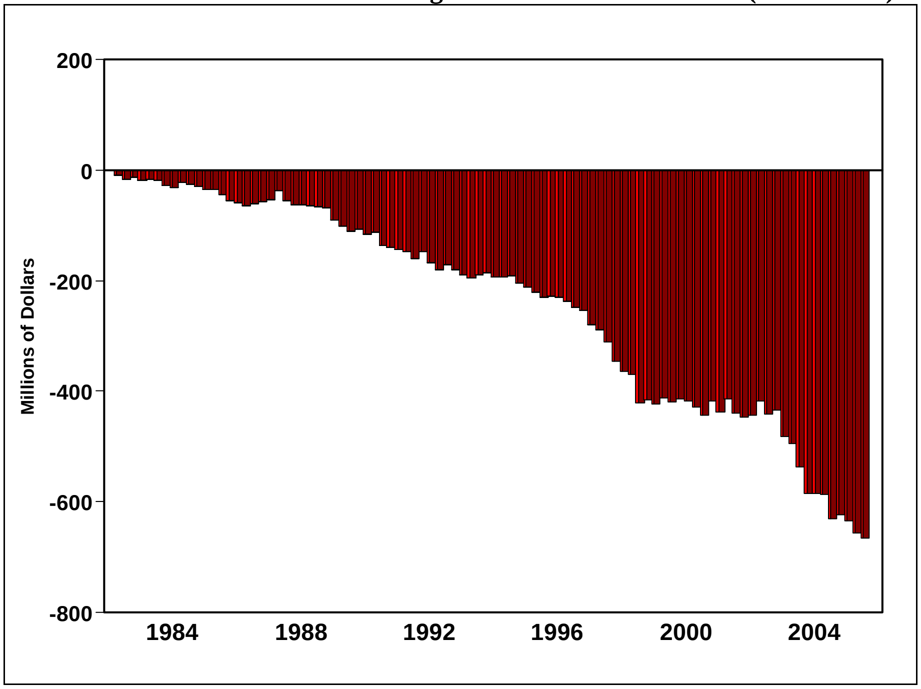
3) the level of retirement benefits accruing to current and future retirees from the public schools of Minneapolis. These effects are reflected in the net cash flow.

Figure 13 presents the cumulative value lost to the MTRFA from its attempts to exceed its own policy returns. It also vividly demonstrates the compounding effects of fund underperformance.

A short period of underperformance resulting from failed attempts to beat the market may not seem significant. But lost value creates a permanent drag on fund recovery since the lost value is not available for positive investment returns in future years. This compounds the negative impact on the fund's value. In the case of MTRFA, which features years of chronic underperformance, the drag on fund recovery is very strong. Even in good quarters when MTRFA outperformed its benchmarks, proportionately less value is added. The power of compounding illustrates why a focus on simple periodic rates of return is nearsighted and paints an incomplete picture when evaluating the productivity of a fund's investment management process.

*"The power of compounding illustrates why a focus on simple periodic rates of return is nearsighted and paints an incomplete picture when evaluating the productivity of a fund's investment management process."*

**Figure 13: Minneapolis Teachers Retirement Fund Investment Management Process Cumulative Value Lost Due to Delegated Investment Decisions (1982 - 2005)**




*Source: Data provided by MTRFA, analysis by Asset Allocation Incorporated.*
*See text box "**Additional Background and Commentary on the MTRFA Value Added Analysis**"*

Contrast this reporting format with Exhibit 1—the summary of the MTRFA as described in the 2005 State Auditor's Report. Although the basic data elements of the value added analysis are presented, they are primarily "numbers on paper." Comparisons of actual returns versus the policy benchmark returns are limited to only a single year. It fails to capture the evolution of the fund's condition and reveal the full magnitude of taxpayer's expanding exposure to risk created by steadily accumulating unfunded liabilities.

**Exhibit 1: MTRFA Performance Data for 2004, Reported by the Office of the State Auditor**

**Minneapolis Teachers' Retirement Fund Association**
For the Year Ended December 31, 2004
(Dollars in Thousands)

| Rates of Return (ROR) | |
|---|---|
| OSA One-Year ROR | 10.2 % |
| Plan One-Year ROR | 10.2 % |
| Benchmark ROR | 10.9 % |
| Actuarial Assumed ROR - Active | 8.5 % |
| Actuarial Assumed ROR - Retired | 8.5 % |
| OSA Three-Year ROR | 4.3 % |
| OSA Five-Year ROR | (0.3)% |

| Benchmark Components and Rates of Return | |
|---|---|
| Dom. Equities Custom[1] | 11.6 % |
| Lehman Bros. Aggregate | 4.3 % |
| MSCI EAFE | 20.2 % |
| 90-Day U.S. Treasury Bill | 1.3 % |
| Russell 3000 | 11.9 % |

| Policy Asset Allocation | |
|---|---|
| Domestic Equities | 57.0 % |
| Fixed Income | 25.0 % |
| International Equities | 15.0 % |
| Cash | 2.0 % |
| Alternative Investments | 1.0 % |

| Actual Asset Allocation | |
|---|---|
| Domestic Equities | 57.9 % |
| Fixed Income | 23.0 % |
| International Equities | 16.8 % |
| Cash | 1.6 % |
| Alternative Investments | 0.7 % |

| Asset Class | Investment Type | Beginning Market Value | Net Cash Flow (Net of Fees) | Investment Return | Ending Market Value | Rate of Return |
|---|---|---|---|---|---|---|
| Domestic Equities | Domestic Equities | $ 430,086 | $ (23,006) | 48,034 | $ 455,114 | 11.8 % |
| Fixed Income | Fixed Income | 183,854 | (10,000) | 6,607 | 180,461 | 4.3 % |
| International Equities | International Equities | 139,115 | (28,002) | 21,125 | 132,238 | 18.4 % |
| Cash | Cash | 17,019 | (4,508) | 56 | 12,567 | (0.5)% |
| Alternative Investments | Venture Capital | 6,416 | 1,100 | (1,836) | 5,680 | (28.0)% |
| | **Total** | **$ 776,490** | **$ (64,416)** | **$ 73,986** | **$ 786,060** | |

[1] The Domestic Equities Custom benchmark is weighted 76.7% S&P 500, 8.9% Russell 1000 Growth, 7.4% Russell 2000 Value and 7.0% Russell 2000 Growth.

*Source: Large Public Plan Pension Report for the Year Ended December 31, 2004, State of Minnesota, Office of State Auditor, page 32.*

Value added performance auditing can be done for all of the public pension funds in the state. It provides both taxpayers and pension beneficiaries new insights into how well their contributions to the system are being managed.

Value added performance auditing is equally applicable to private sector pension funds, foundations, and endowments. The findings and conclusions may be very similar. A recent value added performance study conducted for the Institute of Internal Auditors examined the funds of 20 public and private pension organizations and charitable foundations over a ten-year period. Only three demonstrated net positive value added from the delegated investment decisions.

## Additional Background and Commentary on the MTRFA Value Added Analysis

The amounts presented in the MTRFA analysis must be treated as approximations for several reasons. Several data access problems made it necessary to revert to slightly less precise quarterly calculations. The absence of cash flow data for multi-year periods required these critical details to be derived from asset value changes and the fund's published rates of return. Unable to validate reported performance, we had to work with the rates provided, accepting them as accurate. Rather than re-analyze the period covered by the study completed in 1994 for the Office of the State Auditor, we extended those well-documented files to December 2005 in preparing this report.

Given these limitations, we designed the study to use conservative, yet reasonable assumptions. To accomplish this we:

- Applied policy changes in the quarter following the official change date, allowing time for administrators to implement the changes,
- Assumed that all net outflows occurred on the first day of each quarter, lowering the asset values upon which the fund's performance was based,
- Used higher-quality bond benchmarks for "junk" bonds to lower the performance standard,

*(continued on next page)*

*(continued from previous page)*

- Measured high-risk investments (venture capital and other "alternative investments" against risk-free Treasury bills to lower the performance hurdle.

Importantly, all of these assumptions were applied in order to "err" on the side of the fund's administrators. Lowering the benchmark standards made it easier for the actual investment results to compare favorably.

The analysis was run several times using more aggressive (and appropriate) benchmarks recognized in the fund's policy statements (Merrill Lynch High Yield Index for junk bonds and Russell 2000 Growth for venture capital, for example). The purpose was to establish a range of outcomes for the Policy and Delegated results. Policy effects ranged from a gain of $1.78 billion to a gain of $1.84 billion. Results from Delegated Decisions ranged from a loss of $667 million (the amount we accepted) to a loss of $725 million.

Figure 13 shows how the -$667 million result from delegated decisions unfolded over the 1982-2005 period. It must be understood that the fund actually had positive returns during most of these years, assured by the investment policy's exposure to the rising tide of securities values. The fund's management decisions simply did not keep pace. The chart depicts the persistently negative experience of the fund in implementing its own policy. As a consequence, the December 2005 value of the fund is about $667 million below that made available by the risk and asset mix represented in the investment policy.

One might wonder why the shortfall increased even when performance was positive. Consider the following, in round numbers. A shortfall of about $160 million developed during the decade that ended in 1992. Those "lost" assets were not available to experience the surge in values over the next eight years. If they had been, the fund would have earned another $230 million from its investment policy. By the end of the 2000-2002 bear market the shortfall stood at about $440 million. These missing assets could not benefit from the 23% rebound in 2003, thus deepening the shortfall by another $100 million.

This "negative compounding" effect partially explains why the fund cannot invest its way out of the problem. In other words, the hole is now so deep that impossibly superior investment results many years into the future could not fill it in.

**If the results of this analysis just seem too unbelievable, one additional perspective illustrates how this is all possible. As an alternative, we assumed that the MTRFA investment policy for the past 23 ½ years was instead a very unsophisticated 50/50 mix of stocks and bonds. As a result, only two investments—an S&P 500 Stock Index Fund and a Lehman Aggregate Bond Index Fund—were used to "implement" this hypothetical investment policy. If all the fund's investable assets, adjusted for the same net cash flows as above, had been invested in these two index funds for the entire 23 ½ years, the Policy would have earned $1,873 million, $761 million more than was actually realized. The MTRFA fund's December 2005 value would have been about $1.5 billion, double its actual value of $750 million. MTRFA's unfunded liability would have been manageable without the need for a bailout, and all this would have been accomplished for a fraction of the management fees and administrative expenses actually expended.**

*"MTRFA's unfunded liability would have been manageable without the need for a bailout, and all this would have been accomplished for a fraction of the management fees and administrative expenses actually expended."*

## Minnesota's Aborted History with Value Added Performance Auditing

Over a decade ago, an effort was made to establish value added performance auditing as standard practice for public pension reporting. The experience of this aborted effort provides valuable insights into the politics of greater pension transparency.

In 1992 then State Auditor Mark Dayton, concerned about the lack of transparency and oversight in pension fund management and performance, launched an effort to have Minnesota adopt value added performance auditing. A consultant[60] was hired to conduct a value added analysis for the three first class city teachers funds for the 1982-1992 time period.

According to a report by the St. Paul Pioneer Press, the study concluded “the investments of the Minneapolis, St. Paul, and Duluth teacher’s pension funds didn’t perform as well as the securities markets in which they were invested from 1982-1992 costing those funds millions of dollars in potential income.”[61]

Based on the initial 1994 report, State Auditor Dayton argued for a bill to broaden disclosure requirements for all pension funds based on value added performance reporting. The controversial bill was enacted in 1994 that strengthened the oversight rules to hold pension boards accountable for both their investment policies and their selection of fund managers to carry out these policies.

In July, 1995 the State Auditor issued its initial report on pension fund management under the 1994 law. For this report, funds with assets exceeding $300,000 were required to submit investment data. In all, 135 pension funds were required to report, and the results were disappointing. Of the 135 associations reporting, only 12 had investment policies in place prior to 1989. Four had policies in place but lacked specific asset allocations making comparisons to indices impossible. Forty-eight relief associations had policies in place but did not know when they were in effect—again making comparisons to indices impossible. Other relief associations submitted data, but an alleged problem with computer software made assessment of their investment performance impossible. At least one relief association did not submit any data at all, while remaining funds were granted a waiver from submitting data.[62]

Midway through 1994, substantial progress had been made to institutionalize value added reporting requirements through the Office of the State Auditor. State Auditor Dayton declined to run for reelection in 1994, and he was replaced in January of 1995 by Judith Dutcher. A contract dispute later arose between the consultant and the Office of the State Auditor and with approximately 75% of the work completed on the value added reporting system, State Auditor Dutcher cancelled the project.

### Resistance to Value Added Performance Auditing

There is considerable resistance to value added auditing among fund administrators. The aborted implementation of value added performance auditing in 1995 offers insights into reasons behind the resistance to implementing such a system:

***Loss of local control***—The nearly 700 hundred local firefighter pension funds and the handful of locally-administered police and fire pension funds in the state have been resistant to consolidating into larger centrally-managed plans. Such consolidation would

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[60] By way of disclosure, the consultant referenced above was Asset Allocation, Incorporated, the same consultant hired by MCPFR to provide technical assistance with this report.

[61] *Pension Funds Are Criticized; Public Plans Miss Chances to Achieve Higher Returns*, by Dave Beal, *St. Paul Pioneer Press*, March 13, 1994.

[62] *Public Pensions in Minnesota: Issues of Taxpayer Accountability*, Minnesota Taxpayers Association, February, 1997, p. 24.

likely appear prudent as more complete return-on-investment information is made available. When a 1994 proposal related to greater investment of firefighter relief association assets in the SBI-operated Minnesota Supplemental Investment Fund was being debated, Representative Phyllis Kahn, a supporter of the bill, noted that she received hundreds of letters from volunteer firefighters from across the state. Commenting on local reaction she stated, "you would think the dome went off the Capitol."[63]

Much of this reaction is understandable since local pension management decisions have never been fully exposed to taxpayer and beneficiary scrutiny. Ironically, local firefighters and police officers have a vested interest in seeing this type of analysis implemented to ensure that their retirement funds are well-managed.

***Cost of data management and administration***—In 1994, the executive director of the State Board of Investment projected that value added performance auditing could cost from $200,000 to $300,000 in administrative expenses. State Auditor Dayton considered that figure "wildly exaggerated" and said "I don't see this as expensive at all."[64]

In the course of preparing this report, both the MTRFA and the SBI (also approached for data) emphasized significant administrative time and cost challenges of gathering the data needed to perform this analysis. However, the statutory reporting requirements already require the reporting of most of the necessary data to the State Auditor already, including the most challenging element, each fund's benchmark rates of return. Necessary data requirements for value added performance auditing should already be in place:

- An investment policy (currently required)
- Fund values (already reported monthly)
- Net cash flow data— required but usually missing from reports now. It consists of deposits into and disbursement from the fund. This is uncomplicated and straightforward information for any fund to maintain.

Cost concerns should be honestly addressed, but the overall benefits of the additional disclosures from value added performance auditing should easily outweigh cost considerations. This type of performance auditing provides more complete pension fund financial information by tracking and evaluating the decision-making process as well as the overall returns on investment.

*"The value added auditing system is 'investment neutral', however, in that it is simply designed to report the results of investment decisions, positive or negative, active or passive."*

***Passive versus active investment management***—Some fund managers are concerned that value added analysis would force pension fund administrators into passive, index-based investments instead of active management that is believed to generate better returns. The value added auditing system is "investment neutral", however, in that it is simply designed to report the results of investment decisions, positive or negative, active or passive.

A highly visible and accountable pension reporting system may indirectly drive managers into more passive investment practices simply because citizens will become more aware of failed attempts to beat the market and the costs associated with those attempts.

[63] *Pension Funds Are Criticized; Public Plans Miss Chances to Achieve Higher Returns,* by Dave Beal, *St. Paul Pioneer Press,* March 13, 1994.
[64] ibid.

Estimates are that only about a third of professional money managers typically beat the market in any given year, and that ratio declines as managers are compared to indices over longer periods of time. According to Morningstar, over the ten years ending in December 2005, only 7.6 percent of all actively managed domestic stock funds were able to outperform the S&P 500.[65]

These tough odds are implicitly acknowledged and reflected in the compensation system for pension fund money managers. Investment managers hired by pension funds are paid on a percentage of assets managed, not on performance. A properly designed system of compensation based upon value added by money managers would increase the potential earnings of those managers if they are able to add value to the investment portfolios.

When active attempts to beat the market chronically fail, taxpayers and pension beneficiaries still pay for under-performance. Value added performance auditing brings this to light. As Mark Dayton commented in 1994, "any good money manager is willing to be evaluated."[66]

It is essential that investment authorities' policies and strategies be more comprehensively evaluated before any efforts are made to improve fund health via larger employee or taxpayer contributions. Value added performance auditing provides the mechanism to do this. If the changes in the reporting requirements discussed in this section are made, taxpayers will have an excellent means to assess how effective investment authorities are in managing funds under their control.

*"History suggests it may be necessary to transfer this auditing responsibility to a state agency less subject to political pressures that come to those who are elected officials."*

History suggests it may be necessary to transfer this auditing responsibility to a state agency less subject to political pressures that come to those who are elected officials. As quarterly information is processed by an appropriate and independent state agency, pension boards' investment policies and strategies will then become more visible to their plans' retirees and active employees, as well as to legislators and taxpayers. At the same time, investment authorities will maintain the freedom to invest as they see fit.

**Beating the Market in the Future—The Growth of Alternative Investments**

The previous discussion focused on performance evaluation relative to fund benchmarks. An underlying issue involves determining what specific investments are appropriate for the investment policy. Investments are tailored to the particular needs of each fund based on investment objectives and risk tolerance.

State law prescribes what types of investments Minnesota's public pension funds may invest in. There is some variation in allowable investments between SBI-managed funds and other funds, but the general universe of pension investments consists of the following[67]:

- Government obligations—which includes bonds, notes, and other debt instruments. Obligations must be ranked in the top four quality rating categories of rating agencies and include the obligations of other states and municipalities as well as that of Canada and other United States sponsored international organizations such as the Asian development bank.

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[65] *"Value investing: a thing of the past -- or future?"* Barbara Whelehan, Bankrate.com
[66] March 13, 1994 St. Paul Pioneer Press article previously cited.
[67] M.S. 346A.06

- Corporate obligations—which includes bonds, notes, and debentures of a corporation organized in the U.S. or Canada
- Other obligations such as commercial paper, certificates of deposit, asset backed securities, subject to various rating and insurance requirements
- Corporate stocks—which include U.S. foreign and emerging market equities subject to size of ownership restriction
- Mutual and index funds
- Real estate investment trusts
- Exchange traded funds

In order to meet growing obligations, pension funds have tolerated greater risk over time. Asset allocation strategies in public pension funds have changed dramatically over the past 25 years. In 1980, state and local pension funds placed just 22% of their assets in equities, while 70% of the fund portfolio was dedicated to bonds. Today more weight is placed on stocks.[68] Minnesota's large public pension plans invest around 60% of their assets in the equity markets. Although the transition is motivated by the record of historically higher returns that stocks provide, it is also somewhat "forced" due to growth in public pension benefit commitments and a population that is living longer.

The trend toward higher risk investments continues today across the country, and is illustrated by the growth of a pension asset category called "alternative investments." Alternative investments are investments that do not trade publicly on an organized exchange. Examples include, but are not limited to, partnership funds that focus on private equity, venture capital, buyout, mezzanine financing (see description below), natural resources, and hedge funds.

In Minnesota the universe of allowable "alternative investments" includes private equity funds and investments in natural resource and real estate limited partnerships. Minnesota has a history with alternative investments that dates back to the mid-1970s. Unlike many other states, Minnesota's pension funds cannot invest in hedge funds. State law prohibits alternative investments from exceeding 35% of the fund's total market value[69]. For the fiscal year ending June 30, 2005, the State Board of Investment had $3.4 billion of assets in alternative investments, or about 9% of assets.

Alternative investments typically comprise a small but growing percent of public pension fund assets because they offer potential for superior returns. For example, one type of alternative investment—a mezzanine investment—consists of a debt or debt-like instrument, paired with an equity "kicker." The equity component of the investment gives the mezzanine lender upside potential, while the debt component—which generates steady interest payments to the pension fund—provides a measure of downside risk protection. The prospect of good returns exist even in bearish markets.

The promise of these investment instruments does not come without potential pitfalls.

[68] *"Holders of the Purse Strings: Governance and Performance of Public Retirement Systems," Michael Useem and Olivia Mitchell, Pension Research Council, Wharton School, University of Pennsylvania, p.4.* While bond yields in these inflationary times were one important reason for this different investment mix, it is also important to note that actuarial rates of return at that time were also lower than today making reliance on higher risk equity markets less necessary in order to achieve full funding.
[69] M.S. 356A.06, Subdivision 7, paragraph (g); and M.S. 11A.2, Subdivision 6.

- *Performance comes at the expense of transparency*—A crucial reason why private equity instruments beat the market is that their success is largely influenced by proprietary information unknown to the market. Private equity firms strongly resist public disclosure of how individual investments are valued for competitive reasons. Private equity firms worry that proprietary information about a company's strategy, technology, profit or losses will reach competitors. Yet transparency is critical to stakeholders in the public pension system and especially to taxpayers who are at risk if the underlying business ventures fail.

- *Risk in Asset Valuation*—Politicians and taxpayers should know the value of the *entire* pension fund at all times with reasonable accuracy, to determine if the fund can cover future payments to retirees. It's easy to know what one million shares of a particular company's stock are worth on any given day. But "alternative" investment managers don't price their assets as often—and most importantly only *they* know if that pricing is accurate. Quite often, the valuations are merely estimates. This valuation problem also makes direct performance benchmarking more difficult. Performance can only be benchmarked by using standard, less representative indices.

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- *Diversification into alternatives can be expensive*—Investments into these alternatives may carry a minimum annual flat fee, plus an additional fee consisting of a percentage of each year's investment gains.

- *Multi-year commitment*—With alternative investments, the pension fund must commit or dedicate a sum of money, which may be tens of millions of dollars, to the investment fund over a period of many years. In many private equity funds, there may also be a callable feature requiring the pension fund to provide additional money for the investment should the underlying business ventures be struggling and in need of an injection of capital.

Alternative investments have been successful for many public pension funds around the country including the State Board of Investment. Growing pension obligations are likely to continue to make this investment option appealing in the future. But even if pension fund administrators can successfully navigate the shoals of higher risk associated with these investments, managers' growing reliance on them points to the frequent challenges of meeting actuarial assumed returns in today's investment markets. As the Director of the Arizona State Retirement System noted, "If you don't think you can make your 8 percent a year, you look anywhere you can to add value."[70]

[70] "Pension Plans Turn to Hedge Funds", *Arizona Republic*, February 12, 2006