Metropolitan Government of Nashville and Davidson County

Internal Audit Section

Report on the Metropolitan Employee Benefit Board Pension Investments

March 31, 2000

Report Issue Date: April 13, 2000

Metropolitan Government of Nashville and
Davidson County

Internal Audit Section

Report on the
Metropolitan Employee Benefit Board
Pension Investments

Table of Contents

Section I Report of Internal Audit Section

Section II Management's Response

Section III KPMG Performance and Operational Review

Metropolitan Government of Nashville and
Davidson County

Internal Audit Section

Report on the
Metropolitan Employee Benefit Board
Pension Investments

Section I Report of Internal Audit Section

March 31, 2000

The Honorable Bill Purcell, Mayor
Metropolitan Government of Nashville and
Davidson County
Metropolitan Courthouse
Nashville, TN 37201

Report of Internal Audit Section

Dear Mayor Purcell:

We have recently completed a performance audit of the pension fund investments under the responsibility of the Investment Board of the Metropolitan Employee Benefit Board. According to the *Government Auditing Standards* issued by the Comptroller General of the United States, "a performance audit is an objective and systematic examination of evidence for the purpose of providing an independent assessment of the performance of a government organization, program, activity, or function in order to provide information to improve public accountability and facilitate decision-making by parties with responsibility to oversee or initiate corrective action." A performance audit is different than financial statement audits, which are limited to auditing financial statements and controls, without reviewing operations and performance. In performing this audit, we retained the KPMG Investment Consulting Group to analyze the pension fund's performance and to perform other work under our direction. Their Performance and Operational Review is included with this report.

Internal Audit typically addresses audit reports to and obtains responses from the department head and the board or commission overseeing the department audited or, for departments without a board or commission, the department head and the mayor. The department head, the Executive Secretary to the Benefit Board, retired effective December 31, 1999. Therefore, under ordinary circumstances this report would have been addressed to the Investment Board as the body that has the ultimate management and fiduciary responsibility for pension investments. However, due to the seriousness of the audit findings and due to the unlikelihood of a timely consensus among the Board members about an effective response to the findings, the resulting recommendations are addressed to you as the official vested with the authority to make suggestions to all boards and commissions and with the authority and the responsibility to submit reports and make recommendations about Metro's welfare to the Metropolitan Council.

Objectives, Scope, and Methodology

This pension investment performance audit is the first phase of a comprehensive audit of the Metropolitan Employee Benefit Board as a whole. Pension investments at September 30, 1999 had a market value of $1,351,423,201. The fund's market values at December 31, 1999 and March 31, 2000 were $1,594,002,000 and $1,672,334,462, respectively.

The overall objectives of this phase of the audit were to review and assess the following.

- Investment policy statement and manager guidelines
- Asset allocation policy
- Investment manager selection process
- Investment consultant role
- Monitoring and reporting functions
- Contracts and agreements relating to pension investments
- Trading and commission practices
- Investment performance
- Alternative investment selection
- Deferred compensation plan performance

The scope of the work was largely focused on the pension investment portfolio and the deferred compensation plan as of September 30, 1999, considering five year returns where available. Manager and consultant fees were reviewed through the fiscal year ending June 30, 1999, and venture capital internal rates of return were reviewed as of December 31, 1999. Due to the timing of the work and the availability of the information, certain other pension fund investment results were reviewed through December 31, 1999 and after.

The methodology employed throughout this audit was one of objectively comparing how Metro's pension fund investments have been managed in relation to other pension funds. This included reviewing Metro's pension fund investment performance as reported in the September 30, 1999 and December 31, 1999 quarterly reports prepared by the Investment

Board's consultant, PaineWebber; comparing that performance to the performance of similar funds; and using other methods to quantify the impact of decisions affecting pension investments. The sources of comparative data are referenced throughout the KPMG report and largely consist of data on other public pension funds and on investment market benchmarks. The methods employed surrounding the deferred compensation plan are similar and are discussed in detail in KPMG's report.

We performed the audit procedures in accordance with generally accepted government auditing standards.

Findings and Conclusions

The KPMG Performance and Operational Review report addresses several specific issues and recommendations in detail. Following is an overview of the more significant findings, with references to the issues included in the KPMG report, as applicable.

A. The Board has established an investment consulting arrangement with inherent conflicts of interest, then has relied exclusively on the consultant for advice to manage Metro's pension investments. The consultant has not been providing the Board with all of the information the Board needs to fulfill it's responsibility to manage pension investments.

1. Metro's investment consultant is not independent and has provided the Board with misleading information, resulting in Board decisions that generated higher commissions.

   The root cause of this problem is the way the Board has structured the arrangement with PaineWebber to provide investment advice. PaineWebber has been the Board's sole investment consultant since September 1991. Instead of directly paying PaineWebber a fixed fee to provide the Board with independent investment advice, PaineWebber is compensated indirectly through a "soft dollar" arrangement where they earn brokerage commissions from Metro's investment managers directing trades through PaineWebber. Soft dollar arrangements are highly unusual for public pension funds; in 1998 only 7% of public funds similar to Metro's paid investment consultants exclusively in soft dollars. (Issue IID-3) Under a soft dollar fee arrangement, higher trading volume results in higher commissions to the consultant. The conflict arises because the consultant has a monetary incentive to advise Metro to manage pension investments in a manner that increases trading volume. To illustrate, two instances were noted where PaineWebber presented misleading information to the Board.

   - In 1996, PaineWebber made a presentation to the Board on passive investing, which is a method of investing in a type of fund that, in effect, mirrors the

performance of the stock market. If a portion of a fund's portfolio is invested passively, assets are set aside in an index fund, which is not actively traded. Therefore, fewer commission dollars are generated than with an active fund. In making the presentation, PaineWebber misquoted an investment industry expert in a manner that would have left the Board with the impression that the expert did not recommend passive investing, when in fact the expert did recommend passive investing in the full quote. Had the Board in 1996 invested the applicable portion of the portfolio in index funds, Metro's pension fund would have earned $60,000,000 more than it actually earned through December 1999 being invested actively as PaineWebber advised. (Issue IIC-4)

- In December 1999, PaineWebber presented a recommendation for the Board to rebalance the pension assets, moving some of the pension investments from one style of equity investments to another. In order for that to happen, some investments would have to be sold and converted to cash so that new investments could be purchased, which would result in trades and commissions. When the final recommendation was presented to the Board, PaineWebber did not disclose the fact that implementing the recommendation would have slightly reduced the fund's returns and slightly increased the fund's risk. Further, when a Board member presented a different recommendation that was not based on any kind of analysis, PaineWebber did not offer the Board any advice about the imprudence of accepting such a recommendation. As a result of that rebalancing recommendation, $113,000,000 of investments were transferred, and PaineWebber earned an estimated $300,000 in commissions. (Issues IIB-3 through IIB-5)

Those two instances of PaineWebber presenting misleading information in recommending that the Board take actions that generated trades and commissions demonstrate the conflict of a consultant compensated with soft dollars. A soft dollar arrangement forces a consultant to choose between acting in a fiduciary capacity when advising a board, versus generating commission revenues in recommending investment alternatives.

2. <u>The Board has been relying solely on the advice of a consultant with an inherent conflict of interest to advise them on how to manage pension fund investments.</u>

The conflict of interest surrounding the investment consultant relationship is exacerbated by the level of reliance the Board has placed on PaineWebber, who was actually involved in establishing the Board's investment policy. (Section IIA, Metro's Investment Policy Statement) Although the Board makes all final decisions surrounding pension investments, they do so at the advice of PaineWebber. There is no qualified investment analyst on staff to review PaineWebber's reports and recommendations and to advise the Board on investment decisions. (Issue IIIA-1) The negative effects of this, coupled with PaineWebber's inherent conflict of interest, is most clearly manifested in the way

the pension investments are allocated among different asset classes, in various issues surrounding investment management, and in the performance of Metro's domestic equity investments, all of which are discussed below.

- The decisions surrounding the allocation of pension investments among different asset classes is significant, because asset allocations impact the fund's returns and the fund's risk. In general, investments in stocks, or equities, can be expected to have higher returns and higher risk than investments in fixed income instruments, such as bonds. Another difference between equities and fixed income investments is that equities generally result in higher trading volume. Metro's target policy for equities is 70%, which is higher than most public funds. The 115 funds in the Public Plan Sponsor database have an average of 57% invested in equities, while the Greenwich Associates Public Plans Survey of 427 funds have an average of 59% invested in equities. In addition to Metro's overall equity exposure, the plan also has a higher mix of international equity investments, which generally carry a higher degree of risk than domestic equity investments. Metro's international equity allocation of 22.6% at September 30, 1999 was double that of both public plan databases.

  Despite the target policy of 70% and the fact that two out of three Board members surveyed indicated a preference for moderate risk, PaineWebber's latest asset allocation recommendation that the Board adopted, as modified, pushed the fund's equity position up to 75%. (Issue IIB-1 and IIB-2) Further, PaineWebber's asset allocation recommendations do not formally address risk, consider the plan's liabilities, or consistently consider alternative investments. (Issue IIB-2 and IIB-6)

- In recommending investment managers, PaineWebber did not provide the Board with sufficient written documentation on each manager in advance of manager interviews, and they did not provide the Board with a sufficient number of managers from which to choose. (Issues IIC-1 and IIC-2) Once selected, PaineWebber essentially controlled the relationship with the investment managers and, in some cases, pre-approved manager's trades. (Issue IIIA-3)

- The domestic equity portion of the pension fund portfolio had a market value of $675,310,477 at September 30, 1999, approximately 50% of total pension investments. Regarding equity trading, PaineWebber's contract states that they "will be placed in a competitive situation on all listed transactions" but only after their contracted fee has been earned. Until their fee has been earned, they can charge $.06 per share. The domestic equity investment managers' contracts direct them to "place all transactions with PaineWebber unless transactions can be placed through third parties at a lower rate" than the PaineWebber rate of $.06 per share. The PaineWebber contract and the investment managers' contracts have conflicting and confusing language

surrounding how trades are to be directed. Additionally, after PaineWebber earns their contracted fee, they do not notify investment managers that their fee has been earned. (Issue IVA-2)

Although the domestic equity investment managers are contractually obligated to trade at the lowest rates, 95.8% of domestic equity trades for the year ending June 30, 1999 went through PaineWebber. Eight managers placed 100% of trades through PaineWebber, three managers placed over 85% of trades through PaineWebber, and one manager placed over 55% of trades through PaineWebber. Had the domestic equity managers executed trades at the lowest rate, the fund would have saved an estimated $305,000 in commissions during the year ending June 30, 1999, and PaineWebber would have still earned their contracted fee. (Issue IVA-1 and IVA-2)

- The termination of investment managers generates trading activity and commissions. Since 1991 PaineWebber has recommended that the Board hire 31 investment managers, then subsequently recommended terminating 18 of those mangers due to poor performance. This turnover is excessive, and the Board has not questioned PaineWebber's manager selection capabilities. (Issue IIIA-1)

- The vast majority of trading activity surrounding large cap and small cap domestic equity investments and fixed income investments goes through PaineWebber. In looking at composites of investment manager performance, measured as returns net of investment manager fees as of September 30, 1999, none of the returns met their respective benchmarks over time. The composite return for large cap domestic equity investments is below the S&P 500 on a quarter, three year, and five year basis; the composite return for small cap domestic equity investments is below the Russell 2000 on a three year and five year basis; and the composite return for fixed income investments is below the Lehman Brothers Intermediate Government index on a quarter, one year, three year, and five year basis. (Issue IIA-3)

  Only international equity and emerging market equity managers, representing the portion of the portfolio where trades are not directed through PaineWebber, are performing above their MSCI benchmarks over time. (Issue IIA-3)

- As of December 31, 1999, the pension fund's five year overall rate of return of 18.47% was higher than the 17.35% static index, which is a calculated benchmark that is based on the fund's asset mix, and was also higher than the 16.44% median return of all public funds, ranking in the 17th percentile of funds in the Public Plan Sponsor data base. This overall return, achieved with a risk in the 99th percentile of those same public funds, is due to the strong performance in the international equity market, as addressed above. For the

same period, as for the previous quarter, five year domestic equity returns continued to be the lowest, while risk continued to be the highest among several peer funds. (Section V B)

PaineWebber's asset allocation advice and manager selection and termination recommendations, coupled with high fees as discussed below, have resulted in Metro's pension investments generating only moderate overall returns and lower domestic equity and fixed income returns, while the fund has been placed in a position of risk that is higher than 99% of all other pension funds in the Public Plan Sponsor database.

3. The investment consultant does not adequately report pension investment performance to the Board.

When asked, PaineWebber representatives indicated that they provided quarterly performance information requested by the Board. (Section V A) Although they knew that the Board was relying solely on them for advice to manage the fund and that they were expected to act in a fiduciary capacity in advising the Board, PaineWebber was not proactive and forthcoming in supplying the Board with all information necessary to present a complete picture of the fund's performance and condition, as follows.

- The fund performance was not being measured against a static policy benchmark, which is a standard way of measuring a specific fund's performance and of monitoring the effect of asset allocation recommendations adopted over time. (Issue IIA-2)
- Individual investment manager quarterly returns were not reported net of fees, which is the only way to fully assess managers' active investment performance versus a passive investment strategy. (Issue IIA-3)
- Quarterly performance reports did not include an analysis of risk for the fund as a whole or for individual asset managers. (Issue VA-1)
- Metro's asset allocation decisions were not tracked over time and were not compared to the asset allocations of similar public funds. (Issue VA-2)
- Historical performance data was limited to five years, even though data was available back to 1984. (Issue VA-4)

Had PaineWebber presented all relevant information to the Board, the Board might have had a different assessment of the pension fund's overall performance and condition and might have made other decisions in managing the fund.

B. The Board has not taken adequate steps to ensure that the contracts surrounding pension fund management have been procured in a manner to provide the maximum value at an appropriate cost.

Although there was evidence that three proposals were received when PaineWebber was selected as the Investment Board's sole consultant, there was no evidence that there was a public request for proposals for investment advisory services. Further, PaineWebber's contract has been extended by the Board several times, with the last extension running through 2004, without the benefit of public bidding and without the Board performing any other formal analysis to compare PaineWebber's service and fees to other available services and fees. (Issue IID-1)

Additionally, PaineWebber's contracted fee for investment advisory services is excessive. The fee is based on the fund's market value, and there is no cap on the consulting fee that Metro is obligated to pay PaineWebber. (Issue IID-4) The fee Metro was contractually obligated to pay PaineWebber for consulting services for the year ending June 30, 1999 was $788,747. As a comparison, the mean fees for other similar public funds ranged from $92,000 to $163,000 in 1998. However, PaineWebber actually earned a total of $1,408,773 in commissions for the year ending June 30, 1999 due to the high volume of domestic equity trading through PaineWebber. (Issue IID-3) Similarly, Metro's investment manager fees are higher than fees paid by other similar public funds. A combination of not aggressively negotiating fees and of not having some portion of the portfolio passively invested in index funds results in Metro's annual investment manager fees being $2,200,000 more than the average comparable public fund fee. (Issues IIC-3 and Section IV C)

The Board's management of the investment consulting arrangement and of the investment managers has resulted in excessive fees and has kept PaineWebber in a position of, in effect, controlling the pension fund investments and the flow of information surrounding the pension fund investments without the Board having considered what other consulting services and fees were available.

C. <u>The Board's investments in real estate, venture capital and other alternative investments are made without appropriate analysis and are not adequately monitored.</u>

Over the years, the Board has entered into several alternative investments without adequate due diligence. (Issue VIA-3) The investment policy indicates that the Board will make the decisions on alternative investments without consultant advice, which is inappropriate given the level of complexity of alternative investments. (Issue VIA-1) Additionally, the Board's policy of preferring to invest in local real estate and venture capital creates a potential for conflicts of interest. (Issue VIA-2) When asked, some Board members indicated that they had sufficient knowledge to make real estate investment decisions and that relying on individuals' reputations for making money was the appropriate basis for venture capital decisions. (Issue VIA-3)

Once purchased, the Board did not adequately monitor investment performance. Real estate, venture capital and other alternative investment returns are not included in quarterly performance reports. (Issue VA-3 and Issue VIA-4) Information surrounding real estate investments was generally not available, and it was not possible to calculate past or current returns for real estate investments.

Similar to real estate, information surrounding venture capital was not readily available, and each venture capital fund's internal rate of return had to be obtained directly from the various venture capital managers. Based on a calculated estimated overall return, it appears that the venture capital investments have an approximate return of 36%. This return is heavily weighted by one $7,500,000 investment with a 149% internal rate of return. The calculated estimated return on the other twelve investments totaling $44,850,000 at December 31, 1999, was 14%, which is far lower than the return that could have been earned if those same funds had been invested in equities at substantially less risk.

The calculated return is based on each fund's internal rate of return and, due to these funds being illiquid, is not comparable to a market rate of return. The fairly strong overall return does not mitigate the fact that these highly speculative, risky investments were not adequately analyzed prior to committing capital and have not been adequately monitored since they were funded.

The Board's subjective method of selecting alternative investments and failure to adequately monitor those alternative investments puts that portion of the investment portfolio, with a market value of $52,060,020 at September 30, 1999, at unnecessary risk for losses.

D. The employee deferred compensation plans have not been monitored, and several of the options are performing poorly.

As of September 30, 1999, Metro employees had nearly $100,000,000 invested in a deferred compensation plan that is supposed to be monitored by the Benefit Board, but the performance of the plan's three providers has not been presented to the Benefit Board. A review of 12 different equity fund options included in the funds representing 75% of each provider's total Metro employee assets revealed that returns for eight of those funds, with total investments of approximately $37,500,000, were below market benchmark five year returns as of September 30, 1999. Further, the risk associated with three of those poorly performing funds, totaling approximately $24,900,000, was higher than the risk associated with market benchmarks. Additionally, for all twelve of the equity fund options reviewed, the expenses charged were higher than the industry average of expenses. (Section VII)

> Significant amounts of employees' retirement savings invested with companies the Benefit Board selected and then failed to monitor are earning poor or mediocre returns while being charged excessive fees.

Recommendations

Following is a summary of the recommendations warranting your intervention, based on the above findings. The detailed recommendations included in the KPMG Performance and Operational Review report should be implemented as quickly as possible, but do not have the same urgency as the following items that are being directed to you for immediate attention.

1. With the departure of the current consultant, the Investment Board has agreed that they need to issue a request for proposals (RFP) for an investment consultant. The RFP should incorporate public pension fund best practices for independent investment advice and should be written so that the resulting contract will compensate the firm providing investment consulting with a fixed, hard dollar fee that is comparable to fees paid by other similar pension funds.

2. The Investment Board needs qualified in-house investment expertise to begin to work through the RFP process and to begin to monitor the interim investment consultant's recommendations and performance. The Metropolitan Treasurer, as the most experienced and qualified person in this area, should be assigned these responsibilities on an interim basis. The Benefit Board operations are currently being reviewed for reengineering opportunities, the rest of the Benefit Board audit will be commencing soon, and a search firm is being selected to recruit a new Executive Secretary. Once these efforts are completed, the Investment Board will be in a position to decide how to address the need for in-house monitoring on a long term basis.

3. The Board should refrain from entering into any additional alternative investments until such time as policies and procedures are established to ensure any future alternative investment purchases are made only after sufficient analysis, to ensure such investments are free of potential conflicts of interest, and to ensure alternative investments are adequately monitored on at least a quarterly basis.

4. The Investment Board is currently in the process of reviewing an RFP to select a deferred compensation plan administrator and to select investments for the plan. The Board should proceed with that process, once the Metro Legal Department has addressed all relevant issues, in order to ensure that Metro employee retirement savings do not continue to have poor or mediocre returns and excessive fees. The Board should also begin to monitor each providers' performance on at least a quarterly basis.

*****

The Mayor's letter responding to these recommendations follows this report.

This report is intended for the information of the management of the Metropolitan Government of Nashville and Davidson County. This restriction is not intended to limit the distribution of this report, which is a matter of public record.

Internal Audit Section

Joseph M. Holzmer
Internal Audit Manager

Copy: David L. Manning, Director of Finance
Eugene Nolan, Associate Director of Finance
Karl F. Dean, Director of Law
Metropolitan Employee Benefit Board
Metropolitan Council Audit Committee
Richard V. Norment, Director of County Audit
KPMG, Independent Public Accountant

Metropolitan Government of Nashville and Davidson County

Internal Audit Section

Report on the
Metropolitan Employee Benefit Board
Pension Investments

Section II Management's Response

April 11, 2000

Mr. Joe Holzmer
Internal Audit Manager
Metropolitan Government of Nashville and
Davidson County
222 3rd Avenue North, Suite 701
Nashville, TN 37201

Dear Mr. Holzmer:

I have reviewed the findings and issues you have reported as a result of the Benefit Board pension investment performance audit. I am in agreement with your recommendations.

It is imperative that our pension funds are invested after analysis by experienced investment advisors, and are then carefully monitored on an ongoing basis. I also feel it is imperative that the next pension consultant arrangement be structured in a manner that will ensure the investment advice surrounding Metro employees' pension funds is free of conflicts of interest and that the consultant's compensation is reasonable.

I will instruct the Director of Finance to make the Metropolitan Treasurer available to assist with the investment consultant and employee deferred compensation plan requests for proposals and to begin monitoring the pension investments and advising the Investment Board as necessary.

I will also communicate directly with each Investment Board member to express my belief that these recommendations should be carried out as expeditiously as possible.

Sincerely,

Bill Purcell
Mayor

Copy: David L. Manning
Metropolitan Employee Benefit Board
Metropolitan Council Audit Committee

Metropolitan Government of Nashville and
Davidson County

Internal Audit Section

Report on the
Metropolitan Employee Benefit Board
Pension Investments

Section III KPMG Performance and Operational Review

METROPOLITAN GOVERNMENT
OF
NASHVILLE AND DAVIDSON COUNTY

Pension Investments
Performance and Operational Review
April 2000

KPMG

This presentation was prepared by:

Neil Wolfson, Partner in Charge
Andrew Kramer, Senior Manager
Randy Moore, Director

KPMG Investment Consulting Group
757th Third Avenue
New York, N.Y. 10017

Table of Contents

I. Introduction 4

II. Investment Policies and Procedures
A. Investment Policy Statement and Manager Guidelines 8
B. Asset Allocation Policy 25
C. Investment Manager Selection 34
D. Role of the Investment Consultant 43

III. Monitoring and Reporting Function
A. Current Structure and Reporting 49

IV. Contracts and Agreements
A. Contract Language and Compliance 53
B. Fee Arrangements 61
C. Fee Comparison – Industry Standards 62

V. Performance Reporting
A. Adequacy of Performance Reporting 64
B. Assessment of Performance 68

VI. Real Estate/Venture Capital 71

VII. Deferred Compensation 78

I. Introduction

The intent of this report is to provide an in-depth analysis of the Metropolitan Government of Nashville and Davidson County's ("Metro") pension investments. Our analysis focuses on performance and operational issues surrounding pension investments, from the setting of the plan's target asset allocation policy to the analysis of performance results. In conducting our analysis, we interviewed various members of the Metro government and others to gain an understanding of the decision making process surrounding pension investments. In addition, we reviewed documents associated with the management of investments, which include: the Investment Policy Statement, Contracts and Agreements with outside vendors, Board minutes, plan performance reports and other materials distributed surrounding pension investments.

KPMG relied on information supplied by the Metropolitan Government of Nashville and Davidson County, its employees and vendors. KPMG did not independently verify all information provided by these sources or conduct a financial statement audit under generally accepted accounting principle rules. KPMG has relied on sources Metro relies upon but has no responsibility for any information supplied by any other entity.

Each section within this report is segregated into three major components: An overview of standard industry practices, Metro's current policy, and an issues and recommendations component. After reviewing Metro's current policy versus standard practices, we were able to bring forth issues which we feel should be addressed by Metro.

Our recommendations are aimed at improving the overall management of Metro's pension investment performance.

Metro Overview

Metro's pension investments are managed by an Investment Board comprised of four members: the three members from the Employee Benefit Board who are appointed by the Mayor, plus the Director of Finance. Each of the three appointed members serves a three-year term on the Board, and the terms are staggered over time. When a member's term has been completed, the Mayor has the discretion to re-appoint the member or replace the member with another candidate. There is no limitation on the amount of time a member can serve on the Board. The Investment Board is supported by the Executive Secretary to the Benefit Board to help the Investment Board in a variety of tasks, including arranging Board meetings, setting agendas, preparing Board minutes and other functions requested by the Board. The Executive Secretary is also responsible for all other operational issues of the Benefit Board. The most recent Executive Secretary decided to retire effective December 31, 1999, and the Board is currently in the process of searching for a replacement.

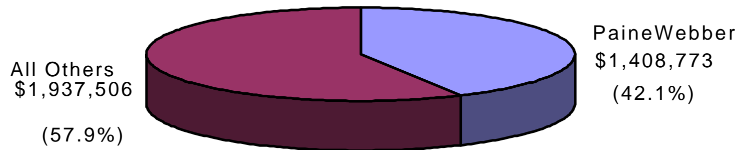
The Investment Board hired an outside consultant, the Phillips Group of PaineWebber, to help advise the Board with a variety of issues, including asset allocation, manager search and selection, performance reporting and general oversight. PaineWebber has been the sole consultant to the Board since 1991, from 1988 to 1991, PaineWebber was the consultant for the fixed income portion of the portfolio, while Equitable consulted the Board on the equity portion. PaineWebber is paid by Metro using soft dollar commissions, whereby the various investment managers direct their trading activity through PaineWebber who then receives commissions on the transactions. In a hard dollar fee arrangement, the plan writes a check to the consultant for their services, and the various investment managers direct their trading activity to a variety of brokers, depending upon their trading arrangements.

On March 17, 2000, the individuals from the division of PaineWebber providing Metro's pension fund investment consulting services, Keith Phillips and the Phillips Group, moved to another brokerage firm and are no longer affiliated with PaineWebber.

Metro’s disbursement of trades

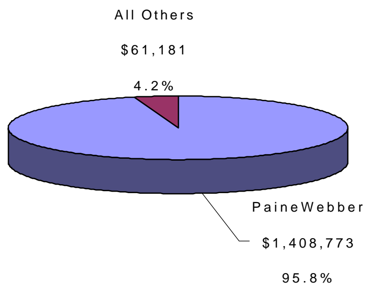
PaineWebber dictates the execution of trades through their consultant contract and through the contracts of each of the investment managers. The series of pie charts depict PaineWebber’s share of commission revenue compared to all other brokers.

Total Equity Commission Dollars
(Domestic + International)
One Year Ending June 30, 1999



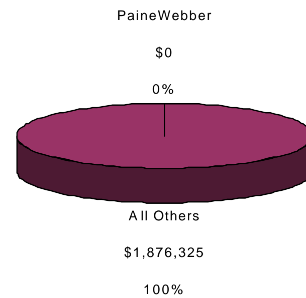
Total Commissions = $3,346,279

Domestic Equity Commission Dollars
One Year Ending June 30, 1999



Total Commissions = $1,469,954

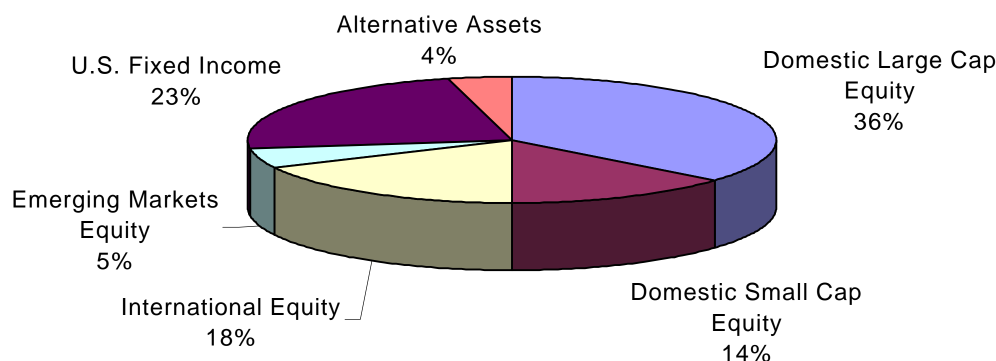
International Equity Commission Dollars
One Year Ending June 30, 1999



Total Commissions = $1,876,325

All of Metro's investment managers are considered active managers. Active managers are able to make investment decisions that are different than their pre-determined benchmark, such as the S&P 500, in an attempt to outperform their benchmark. The Investment Board has chosen not to invest in passive investments, where the goal is to match the return of a pre-determined benchmark. Many other pension plans have chosen to invest some portion of their domestic large cap equities in passive investments. Those investors believe that the domestic large cap segment of the market is very efficient and that outperforming an index such as the S&P 500 is very difficult. In segmenting the domestic equity market, large cap equities typically have a market capitalization of over $5 billion, while small cap equities typically have a market cap between $1 billion and $5 billion. The segmenting of Metro's investments by asset class was calculated by aggregating the portfolios of the investment managers who were first categorized into specific asset classes by PaineWebber.

At the end of September 30, 1999, the Metro plan was valued at $1.4 billion and was segregated into the following asset classes.



Total Assets: $1,351,423,201

Alternative Assets: Includes real estate, venture capital and other alternative investments

Asset Class	Market Value
Domestic Large Cap Equity	$487,760,073
Domestic Small Cap Equity	187,550,404
International Equity	239,222,109
Emerging Markets Equity	69,739,575
U.S. Fixed Income (Includes Cash)	315,091,020
Alternative Assets	52,060,020
TOTAL	$1,351,423,201

II. Investment Policies and Procedures

A. Investment Policy Statement and Manager Guidelines

Overview of Industry Practices

The role of the investment policy statement is to present a written document which outlines the objectives and policies of the pension plan. The policy statement covers a broad array of components from the delegation of responsibilities to the analysis of performance.

Delegation of Responsibilities

The investment policy usually begins by defining who is responsible for managing the assets in the plan. For public pension plans, the responsibility for managing the plan is usually defined within state and local statutes. An Investment Board is created with overall responsibility for all the decisions made on behalf of the plan. In this context, the Board takes on the role of a fiduciary to the plan. Within the pension community, fiduciary responsibility varies depending upon the type of plan. Federal law under the Employee Retirement Income Security Act (ERISA), governs corporate pension plans. Public plans are not subject to ERISA, but fiduciary responsibility falls under the Prudent Investor Rule and state, county and municipal specific regulations. The concept of fiduciary duty was defined by the legal system and became known as the Prudent Man Rule, which was interpreted as preserving capital and avoiding risk. The Prudent Man Rule stated: "*Investments shall be made with judgement and care, under circumstances then prevailing which persons of prudence, discretion and intelligence exercise in the management of their own affairs, not for speculation, but for investment, considering the probable safety of their capital as well as the probable income to be derived*". In this context, each individual investment was subject to the Prudent Man Rule. However, as modern portfolio theory evolved, the concept of prudence changed. It is now more important to view an investment not as a single investment, but as part of the overall portfolio. This allows trustees to add risky investments if they help reduce the overall risk of the portfolio. This concept became known as the "Prudent Investor Rule" and is being adopted by most U.S. jurisdictions and by U.S. courts.

Asset Allocation Policy

A major section of the policy statement should discuss the asset allocation strategy of the plan by defining a target policy for the plan. The goal of the target policy is to clearly define which asset classes are to be included in the portfolio and the optimal allocation of each asset class. The target policy for the plan is usually determined from an asset allocation study. The target for each asset class can change over time due to the conclusions reached in an asset allocation study. Some pension plans conduct asset allocation studies once a year, while other plans might opt to conduct a study every couple of years. Within the asset allocation section is a formal statement defining the re-balancing strategies of the plan, which sets target ranges for each asset class within the portfolio. Target ranges can be expressed as either an absolute range around the target or can be expressed as a maximum/minimum percentage deviation from the target. For example,

if the domestic equity asset class has a target policy of 60% of total assets, the asset class may range from 55% up to 65%. Expressed as a percentage deviation, the asset class may move no more than +/- 5% from the target policy. Given the volatility of the market and the cost of re-balancing a portfolio, re-balancing strategies must manage the tradeoff between deviations from the target against the cost of re-balancing the portfolio back to the target policy.

Investment Objectives and Performance Standards

After an asset allocation strategy has been set, the next issue an investment policy statement should address is the analysis of fund performance. The policy statement should define the relevant benchmarks that the fund will be measured against at both the total fund level and for each asset class. In many cases, plans will analyze performance versus several benchmarks. For instance, a static benchmark can be used to measure the asset allocation policies of the plan to understand whether the plan's asset allocation changes over time have added value to the plan. An allocation benchmark can also be used to measure manager performance versus a set of indices. That is, does active management add value relative to passive investments? In addition to analyzing performance versus various benchmarks, the plan should also analyze performance versus comparable peer group universes.

Another element in analyzing plan performance is through the measurement of risk. Most plans will measure risk using standard deviation and measure a portfolio's return risk profile. Unlike the analysis of return, the measurement of risk is more difficult to quantify. Most plans, in the investment policy statement, will usually have a section devoted to the risk objectives of the fund.

Investment Guidelines

Asset class and manager guidelines for the plan can be included in the investment policy statement or as a separate document. In either case, the role of the guidelines is to create a set of standards that specifically outline the types of instruments that can be included or excluded in the portfolio. In addition, the investment guidelines place limits on certain types of holdings in order to control risk within a specific manager's portfolio and within the total portfolio. For instance, a plan may explicitly state that no derivatives are allowed in the portfolio in order to limit the manager's ability to raise the risk of the portfolio by trading derivative instruments. Other restrictions help to avoid concentrations in a company or industry which may place undue risk on the portfolio. Usually, each manager is given a set of guidelines for their specific mandate, which is signed by both the manager and the plan. This helps avoid potential issues concerning allowable securities within the portfolio and other issues related to the overall management of the portfolio.

Metro's Investment Policy Statement

Overall breadth and scope of the guidelines

Metro's investment policy statement covers the major components of the investment policy statement in sufficient detail, which include: Delegation of Responsibilities, Investment

Objectives and Performance Standards, Asset Allocation Policy and Investment Guidelines. The policy statement is well organized and easy to follow and understand. It covers most of the issues within each component that are necessary for the proper management of the plan investments. It should be noted that the investment policy was written by the former Executive Secretary with the assistance of PaineWebber.

Delegation of Responsibilities

The Metro investment policy statement begins by defining the roles and responsibilities of the Investment Board, which has the ultimate responsibility for the management of the plan as defined by the Metropolitan Charter and the Metropolitan Code of Laws. Among its many responsibilities, the Investment Board determines asset allocation policy, evaluates and selects investment managers, and reviews and evaluates plan performance. The Executive Secretary's role within the investment function of the plan is to support all Board functions. This includes arranging Board meetings, setting agendas, preparing Board minutes and other functions requested by the Board. The Executive Secretary is also responsible for all operational issues within the pension plan. On the operational side of the pension plan, the Executive Secretary reports to the Employee Benefit Board. Within the policy statement, Metro has a section detailing the roles and responsibilities of the consultant. The Board has the authority to retain one or more consultants to advise the Board on various financial matters. The investment policy statement also defines in general terms the roles and responsibilities of the master custodian. There is also one section within the Delegation of Responsibilities section that sets certain minimum qualification standards for investment managers.

The following are issues we found within the Delegation of Responsibilities section of the investment policy statement, along with our recommendations.

Issue IIA-1: The wording for minimum qualifications in Section II H (Investment Manager Qualifications) is vague and can be misinterpreted.

Interestingly, the policy statement has a section concerning minimum levels of experience and minimum levels of assets under management for investment managers (excluding venture capital and real estate). While slightly unusual to have this statement in the main section of the policy statement, there is nothing wrong with including this section. It contains the only criteria specified by Metro to PaineWebber for the manager search process. All other criteria for the search process has been developed by PaineWebber. However, the wording for minimum levels of assets under management and experience can be interpreted in various ways. For assets under management, does the minimum level pertain to total firm assets or to assets for a particular asset class, such as large cap equity? Do the assets include both institutional and retail assets? For manager experience, must the five years of experience for the firm's principals be at that particular firm or can the firm's principals have a total of five years experience including experience at other firms? Should a manager ever be retained who does not meet all the criteria, the Board would be in technical breach of the investment policy.

As an example, Garrett Van Wagoner was hired by the Board on February 15, 1996 to manage two mandates: Emerging Growth and Micro Cap. Mr. Van Wagoner had left John Govett &

Company in December of 1995 and started his own firm on January 2, 1996. At the time Mr. Van Wagoner was hired by the Board, he was managing $58 million in assets for his new firm, which was below the $100 million dollar minimum specified in the investment policy statement. Although Mr. Van Wagoner managed substantially more assets at his old firm, the minimum criteria should have applied to his new firm. The Board funded Van Wagoner's two funds with $7.5 million each. Approximately six months later, the Board funded Van Wagoner's two funds with an additional $3 million each. One month after this additional funding, in September of 1996, the Board decided to terminate Van Wagoner, citing poor performance.

The issue of minimum experience has also been debated at Board meetings in regard to Metro's venture capital commitments. This issue is further discussed later.

Recommendation: Clarify the language on firm assets and manager experience, or remove this section from the investment policy and specify minimum criteria while conducting each manager search.

Investment Objectives and Performance Standards

The overall objectives of the fund are to meet actuarial assumptions and keep pace with the rate of inflation. From these objectives, the Metro fund must outperform the 91-day Treasury Bill rate and the CPI index, plus 3%. The fund is measured over a five-year time frame. In addition, the fund has a secondary objective to measure performance against a composite of unmanaged market indices using the actual weights of the asset classes in the fund. This index is referred to as the dynamic index in performance reports. The purpose of the index is to measure the performance of active managers relative to a fully passive strategy. In other words, has active management added value to the fund's performance or would the fund have been better off placing their assets in index funds?

The following are issues we found within the Investment Objectives and Performance Standards section of the investment policy statement, along with our recommendations.

Issue IIA-2: There is no total fund comparison versus a static policy benchmark.

In the middle of 1998, the Board requested that Metro's performance be compared using a static benchmark to address the concerns of several Board members and the Mayor, who had attended a Board meeting in November of 1997. In response to this request by the Board, PaineWebber created a new index, called the dynamic index, which they incorporated into Metro's performance reports. PaineWebber considered the dynamic index to be Metro's static benchmark; although, the weights in the index change every month, which is not appropriate for a static policy benchmark. While the dynamic index is a good benchmark for measuring the role of active management versus passive management, the benchmark does not measure the effect of Metro's asset allocation policies. As discussed in many industry articles and by PaineWebber in a presentation to the Board on February 16, 1995 labeled "Determinates of Portfolio Performance", asset allocation decisions account for approximately 90% of a portfolio's rate of return. Metro does not currently compare their performance to a static policy benchmark. In a static benchmark, the weights of the indices are pre-set and do not change over time as the portfolio weights change. Without a comparison to a static benchmark, the Board does not have

any type of analysis to determine if their asset allocation decisions added value to the plan and could not address, for example, whether the movement of assets into small cap equity or international equity added value or detracted from total fund performance. In addition, there are no comparisons or analyses to determine the effect of PaineWebber's asset allocation recommendations adopted from its annual asset allocation study.

Recommendation: **Adopt a formal static policy benchmark. The total fund return of the plan should be compared versus this benchmark in addition to the dynamic index. This static benchmark should reflect the target asset allocation weights adopted by the Board with appropriate indices chosen for each asset class. However, the weights of each asset class, and the indices within the static policy benchmark will not change over time unless the Board authorizes a change in asset allocation targets.**

Issue IIA-3: **All of the portfolio performance comparisons of the fund, including both total fund and asset class level returns, are calculated gross of fees and do not reflect the cost of investment management fees.**

All of the portfolio performance comparisons in the investment policy statement assume that returns are shown gross of fees, excluding investment manager fees. This is one method used to measure performance versus a benchmark and versus a universe of peers. Gross of fee returns are usually used in a peer group analysis, since peer group returns are also shown gross of fees. However, it is also important for Metro to display returns net of fees when comparing their performance versus a comparable benchmark. Investment managers are selected based on their ability to outperform a comparable benchmark. The fee they charge for managing the portfolio is used to compensate the manager for having the ability to add value over and above a predetermined benchmark. The investment management fee accounts for the majority of fees within the plan and directly affects the total rate of return of the plan. In fact, the investment management fee reduces the overall return of the fund. Therefore, a manager should be measured against a predetermined benchmark with their fees deducted from the total return calculation. If an investment manager can not outperform their predetermined benchmark after being compensated for their investment skills, then the fund might be better off moving to a passive alternative. Much of the debate that surrounds the active vs. passive management topic focuses on whether active management can justify their fees though superior performance, relative to a benchmark.

The following pages detail the performance of Metro's managers and composites at the asset class level. Managers are compared to their respective performance benchmarks in addition to their style benchmarks, where appropriate. Performance returns are shown on an absolute and relative basis to highlight the manager's performance. Returns and quartile rankings are based on data from Metro's September 30, 1999 quarterly performance report produced by PaineWebber. To calculate a net of fee return, each manager's fees were deducted from their respective performance results. The net of fee returns of the managers within an asset class were then aggregated into a composite based on a weighted average calculation methodology. The composite results include all of Metro's investment managers over the last five years, including all terminated managers.

Large Cap Composite – Total Fund
Investment Manager Performance Analysis
As of September 30, 1999

- Over three and five years, both composites have underperformed the S&P 500; they have only outperformed the index over a one year time frame
- Over three and five years, both composites rank in the third quartile; both composites rank in the second quartile over the last year

PERFORMANCE VS. LARGE CAP INDICES

	Qtr	1 Year	3 Years	5 Years
Large Cap Equity Composite – Gross	-8.8 (3)	32.1 (2)	20.4 (3)	22.1 (3)
Large Cap Equity Composite - Net	-8.9 (3)	31.6 (2)	19.9 (3)	21.6 (3)
S&P 500	-6.3 (3)	27.8 (2)	25.1 (2)	25.0 (2)
S&P 500/Barra Growth	-3.5 (1)	33.4 (1)	30.6 (1)	29.1 (1)
S&P 500/Barra Value	-9.2 (4)	21.5 (3)	19.1 (3)	20.7 (3)

Benchmark Analysis

RELATIVE PERFORMANCE VS. S&P 500

	Qtr	1 Year	3 Years	5 Years
Large Cap Equity Composite - Gross	-2.5	4.3	-4.7	-2.9
Large Cap Equity Composite - Net	-2.6	3.8	-5.2	-3.4

() – Number shows the quartile rank of the manager/index in the large cap equity universe with: 1=Top 25% of managers, 2= 25% to 50% of managers, 3=51% to 75% of managers, 4= Bottom 76% to 99% of managers

Large Cap Growth – Total Fund
Investment Manager Performance Analysis
As of September 30, 1999

- All three managers have a very short performance history
- Over one year, all three managers have outperformed the S&P 500
- Over one year, only Edgewood has outperformed the style index, the S&P/Barra Growth Index
- Over one year versus the large cap growth universe, Edgewood ranks in the first quartile while Cohen Klingenstein & Marks and Montag & Caldwell rank in the third quartile

	PERFORMANCE VS. LARGE CAP INDICES			
	Qtr	1 Year	3 Years	5 Years
Cohen Klingenstein & Marks	-7.6 (4)	30.3 (3)	—	—
Edgewood	-3.1 (2)	47.6 (1)	—	—
Montag & Caldwell	-5.0 (3)	30.6 (3)	—	—
S&P 500	-6.3 (4)	27.8 (4)		
S&P 500/Barra Growth	-3.5 (2)	33.4 (3)		

Benchmark Analysis

	RELATIVE PERFORMANCE VS. S&P 500			
	Qtr	1 Year	3 Years	5 Years
Cohen Klingenstein & Marks	-1.3	2.5	—	—
Edgewood	3.2	19.8	—	—
Montag & Caldwell	1.3	2.8	—	—

Style Analysis

	RELATIVE PERFORMANCE VS. S&P/BARRA GROWTH			
	Qtr	1 Year	3 Years	5 Years
Cohen Klingenstein & Marks	-4.1	-3.1	—	—
Edgewood	0.4	14.2	—	—
Montag & Caldwell	-1.5	-2.8	—	—

() – Number shows the quartile rank of the manager/index in the large cap growth universe with: 1=Top 25% of managers, 2= 25% to 50% of managers, 3=51% to 75% of managers, 4= Bottom 76% to 99% of managers

Large Cap Value – Total Fund
Investment Manager Performance Analysis
As of September 30, 1999

- NWQ only has one quarter of history
- Over three and five years, Flippin Bruce & Porter has underperformed the S&P 500
- Over three and five years, Flippin Bruce & Porter has outperformed the style index, the S&P/Barra Value Index
- Over one, three and five years versus the large cap value universe, Flippin Bruce & Porter ranks in the first quartile

	PERFORMANCE VS. INDICES YEARS			
	Qtr	1	3	5
Flippin Bruce & Porter	-11.3 (4)	28.4 (1)	21.3 (1)	23.0 (1)
NWQ	-13.6 (4)	—	—	—
S&P 500	-6.3 (1)	27.8 (1)	25.1 (1)	25.0 (1)
S&P 500/Barra Value	-9.2 (2)	21.5 (2)	19.1 (2)	20.7 (2)

	RELATIVE PERFORMANCE VS. S&P 500			
	Qtr	1 Year	3 Years	5 Years
Flippin Bruce & Porter	-5.0	0.6	-3.8	-2.0
NWQ	-7.3	—	—	—

	RELATIVE PERFORMANCE VS. S&P/BARRA VALUE			
	Qtr	1 Year	3 Years	5 Years
Flippin Bruce & Porter	-2.1	6.9	2.2	2.3
NWQ	-4.4	—	—	—

() – Number shows the quartile rank of the manager/index in the large cap value universe with: 1=Top 25% of managers, 2= 25% to 50% of managers, 3=51% to 75% of managers, 4= Bottom 76% to 99% of managers

Small Cap Composite – Total Fund
Investment Manager Performance Analysis
As of September 30, 1999

- Over three and five years, both composites have underperformed the Russell 2000; both composites have outperformed the index over the last year
- Over three and five years versus the small cap equity universe, both composites rank in the fourth quartile; both composites rank in the second quartile over the last year

	PERFORMANCE VS. LARGE CAP INDICES			
	Qtr	1 Year	3 Years	5 Years
Small Cap Equity Composite – Gross	4.6 (1)	36.3 (2)	5.9 (4)	12.3 (4)
Small Cap Equity Composite – Net	4.4 (1)	35.6 (2)	5.1 (4)	11.6 (4)
Russell 2000	-6.3 (3)	19.1 (3)	8.7 (3)	12.4 (4)
Russell 2000 Growth	-4.9 (3)	32.6 (2)	7.1 (4)	12.2 (4)
Russell 2000 Value	-7.8 (4)	5.8 (4)	9.6 (3)	12.1 (4)

Benchmark Analysis

	PERFORMANCE VS. RUSSELL 2000			
	Qtr	1 Year	3 Years	5 Years
Small Cap Equity Composite – Gross	10.9	17.2	-2.8	-0.1
Small Cap Equity Composite – Net	10.7	16.5	-3.6	-0.8

() – Number shows the quartile rank of the manager/index in the small cap equity universe with: 1=Top 25% of managers, 2= 25% to 50% of managers, 3=51% to 75% of managers, 4= Bottom 76% to 99% of managers

Small Cap Growth – Total Fund
Investment Manager Performance Analysis
As of September 30, 1999

- Both managers do not have a performance record five years or greater
- Aeltus only has one quarter of performance
- Over one and three years, Insight Capital has outperformed the Russell 2000 and Russell 2000 Growth indices
- Over three years versus the small cap growth universe, Insight Capital ranks in the second quartile and ranks first over the last year

	PERFORMANCE VS. SMALL CAP INDICES			
	Qtr	1 Year	3 Years	5 Years
Aeltus	-4.7 (4)	—	—	—
Insight Capital	12.3 (1)	57.1 (1)	14.1(2)	—
Russell 2000	-6.3 (4)	19.1 (3)	8.7 (3)	—
Russell 2000 Growth	-4.9 (4)	32.6 (3)	7.1 (3)	—

Benchmark Analysis

	RELATIVE PERFORMANCE VS. RUSSELL 2000			
	Qtr	1 Year	3 Years	5 Years
Aeltus	1.6	—	—	—
Insight Capital	18.6	38.0	5.4	—

Style Analysis

	RELATIVE PERFORMANCE VS. RUSSELL 2000 GROWTH			
	Qtr	1 Year	3 Years	5 Years
Aeltus	0.2	—	—	—
Insight Capital	17.2	24.5	7.0	—

() – Number shows the quartile rank of the manager/index in the small cap growth universe with: 1=Top 25% of managers, 2= 25% to 50% of managers, 3=51% to 75% of managers, 4= Bottom 76% to 99% of managers

Small Cap Value – Total Fund
Investment Manager Performance Analysis
As of September 30, 1999

- No manager has a performance record three years or greater
- Over one year, Aronson & Partners has underperformed the Russell 2000 index, Aronson & Partners has slightly outperformed the Russell 2000 Value index over the last year
- Over one year versus the small cap value universe, Aronson & Partners ranks in the fourth quartile

PERFORMANCE VS. SMALL CAP INDICES YEARS				
	Qtr	**1 Year**	**3 Years**	**5 Years**
Aronson & Partners	-8.1 (3)	6.3 (4)	—	—
Russell 2000	-6.3 (2)	19.1 (2)	—	—
Russell 2000 Value	-7.8 (3)	5.8 (4)	—	—

RELATIVE PERFORMANCE VS RUSSELL 2000				
	Qtr	**1 Year**	**3 Years**	**5 Years**
Aronson & Partners	-1.8	-12.8	—	—

RELATIVE PERFORMANCE VS. RUSSELL 2000 VALUE				
	Qtr	**1 Year**	**3 Years**	**5 Years**
Aronson & Partners	-0.3	0.5	—	—

() – Number shows the quartile rank of the manager/index in the small cap value universe with: 1=Top 25% of managers, 2= 25% to 50% of managers, 3=51% to 75% of managers, 4= Bottom 76% to 99% of managers

International Equity – Total Fund
Investment Manager Performance Analysis
As of September 30, 1999

- Over one, three and five years, both composites have outperformed the MSCI EAFE index
- Over three and five years, both composites rank in the first quartile
- Both managers have a long track record with Metro
- Nicholas Applegate has consistently outperformed the benchmark over all time periods and ranks in the first quartile in all time periods
- Lazard Freres has outperformed the benchmark over the last three years and ranks in the second quartile

	PERFORMANCE VS. INTERNATIONAL EQUITY INDICES			
	Qtr	1 Year	3 Years	5 Years
International Composite – Gross	11.2 (1)	47.5 (2)	21.9 (1)	16.0 (1)
International Composite - Net	11.0 (1)	46.9 (2)	21.3 (1)	15.3 (1)
Lazard Freres	5.4 (2)	30.8 (3)	16.0 (2)	—
Nicholas Applegate	13.3 (1)	53.9 (1)	26.5 (1)	19.3 (1)
MSCI EAFE	4.4 (2)	30.9 (3)	10.4 (3)	9.1 (3)

Benchmark Analysis

	RELATIVE PERFORMANCE VS MSCI EAFE			
	Qtr	1 Year	3 Years	5 Years
International Composite - Gross	6.8	16.6	11.5	6.9
International Composite - Net	6.6	16.0	10.9	6.2
Lazard Freres	1.0	-0.1	5.6	—
Nicholas Applegate	8.9	23.0	16.1	10.2

() – Number shows the quartile rank of the manager/index in the international equity universe with: 1=Top 25% of managers, 2= 25% to 50% of managers, 3=51% to 75% of managers, 4= Bottom 76% to 99% of managers

Emerging Markets Equity – Total Fund
Investment Manager Performance Analysis
As of September 30, 1999

- Over three years, both composites have outperformed the MSCI Emerging Market Free index; over one year, both composites have underperformed the index
- Over three years, the gross of fee composite ranks in the first quartile while the net of fee composite ranks in the second quartile
- Nicholas Applegate has outperformed the benchmark for the quarter and for three years

	PERFORMANCE VS. EMERGING MARKETS INDICES			
	Qtr	1 Year	3 Years	5 Years
Emerging Composite - Gross	-3.3 (2)	47.9 (3)	1.0 (1)	—
Emerging Composite - Net	-3.6 (2)	46.7 (3)	-0.2 (2)	—
Nicholas Applegate	-3.3 (2)	44.7 (3)	2.5 (1)	—
MSCI Emerging Markets Free	-5.2 (3)	56.5 (2)	-4.5 (4)	—

Benchmark Analysis

	RELATIVE PERFORMANCE VS MSCI EMERGING FREE			
	Qtr	1 Year	3 Years	5 Years
Emerging Composite - Gross	1.9	-8.6	5.5	—
Emerging Composite - Net	1.6	-9.8	4.3	—
Nicholas Applegate	1.9	-11.8	7.0	—

() – Number shows the quartile rank of the manager/index in the emerging market equity universe with: 1=Top 25% of managers, 2= 25% to 50% of managers, 3=51% to 75% of managers, 4= Bottom 76% to 99% of managers

Fixed Income – Total Fund
Investment Manager Performance Analysis
As of September 30, 1999

- Over five years, the gross of fee composite has outperformed the Lehman Brother Govt/Corp index while the net of fee composite has underperformed the index
- Over five years, both composites rank in the second quartile
- No manager has a performance record five years or greater
- ARM Capital has underperformed the benchmark over the one year and three year time frames
- Over the last three years versus the fixed income – long duration universe, ARM Capital ranks in the second quartile

	PERFORMANCE VS. FIXED INCOME INDICES			
	Qtr	1 Year	3 Years	5 Years
Fixed Income Composite – Gross	0.2 (4)	-3.3 (4)	6.7 (2)	7.9 (2)
Fixed Income Composite - Net	0.1 (4)	-3.6 (4)	6.4 (3)	7.6 (2)
ARM Capital	0.5 (4)	-2.6 (4)	6.6 (2)	—
Lehman Brothers Govt/Corp	0.5 (4)	-1.6 (4)	6.8 (2)	7.8 (2)

Benchmark Analysis

	RELATIVE PERFORMANCE VS LB GOVT/CORP			
	Qtr	1 Year	3 Years	5 Years
Fixed Income Composite - Gross	-0.3	-1.7	-0.1	0.1
Fixed Income Composite - Net	-0.4	-2.0	-0.4	-0.2
ARM Capital	0.0	-1.0	-0.2	—

() – Number shows the quartile rank of the manager/index in the fixed income universe with: 1=Top 25% of managers, 2= 25% to 50% of managers, 3=51% to 75% of managers, 4= Bottom 76% to 99% of managers

Fixed Income Intermediate – Total Fund
Investment Manager Performance Analysis
As of September 30, 1999

- Over all time periods, both composites underperform the Lehman Brothers Intermediate index
- Over all time periods, both composites rank in the fourth quartile
- No manager has a performance record three years or greater
- Over the last year, Companion Capital has underperformed the benchmark
- Over the last year versus the fixed income-intermediate duration universe, Companion Capital ranks in the third quartile

	PERFORMANCE VS. FIXED INCOME INDICES			
	Qtr	1 Year	3 Years	5 Years
Fixed Intermediate Composite - Gross	0.7 (4)	-0.5 (4)	5.9 (4)	6.2 (4)
Fixed Intermediate Composite - Net	0.6 (4)	-0.8 (4)	5.6(4)	6.0 (4)
Companion Capital	0.7 (4)	0.3 (3)	—	—
Lehman Brothers Intermediate Govt/Corp	0.9 (2)	0.6 (2)	6.3 (3)	7.1 (3)

Benchmark Analysis

	RELATIVE PERFORMANCE VS LB INT GOVT/CORP			
	Qtr	1 Year	3 Years	5 Years
Fixed Intermediate Composite - Gross	-0.2	-1.1	-0.4	-0.9
Fixed Intermediate Composite - Net	-0.3	-1.4	-0.7	-1.1
Companion Capital	-0.2	-0.3	—	—

() – Number shows the quartile rank of the manager/index in the fixed income – intermediate duration universe with: 1=Top 25% of managers, 2= 25% to 50% of managers, 3=51% to 75% of managers, 4= Bottom 76% to 99% of managers

Recommendation: Include an analysis of net of fee performance comparisons versus the appropriate benchmarks in addition to the current gross of fee analysis.

Investment Guidelines

The Metro fund has several layers of investment guidelines. The first set of guidelines are broad based in nature and are used to govern the entire fund. These statements discuss income requirements of the fund, security limitations as a percentage of the total fund and other broad guidelines. The next set of guidelines covers the specific asset classes and focuses on permissible securities and diversification. The last set of guidelines covers the sub-asset classes that are being managed by the various investment managers. These guidelines focus on investment objectives for the sub-asset classes, along with other restrictions on the portfolio. The guidelines at all three levels are sufficient and cover the necessary objectives and restrictions as required by the fund.

The following are issues we found within the Investment Objectives and Performance Standards section of the investment policy statement, along with our recommendations.

Issue IIA-4: The statement regarding portfolio turnover in Section IV B 2(f) is ambiguous and unnecessary.

In this section, the investment policy has a statement concerning portfolio turnover, which states that "*portfolio turnover will not be an evaluative factor, if other objectives are met*". It is highly unusual for this type of statement to be included in the investment policy statement. Normally, portfolio turnover is one criteria, among many, that is evaluated in the manager search and selection process. Typically, a consultant will be wary of managers who have a turnover ratio that is substantially higher relative to their peers. Turnover may lead to excessive commissions, market impact and other transaction costs within the portfolio. However, if a manager has a superior performance record relative to their peers, then the issue of turnover may play less of a role. It is preferable to have a high turnover manager with superior performance rather than a low turnover manager with average performance; however, the inclusion of this statement in the investment policy allows a manager to have high turnover with average performance. The phrase "*if other objectives are met*" is very ambiguous and is open to interpretation. What exactly are the objectives that must be met? The true purpose for including this statement is very unclear, and the statement is unwarranted. Since PaineWebber is being compensated on commissions, a high turnover leads to more commissions. A policy of not considering turnover can be construed as the policy allowing for trading practices that can result in a conflict of interest, especially when considering the fact that PaineWebber was involved in drafting the investment policy.

Recommendation: Remove this statement from the investment policy statement. Include portfolio turnover as one criteria, among others, that will be used in the manager search and selection process. In addition, turnover should be regularly monitored.

Issue IIA-5: The derivative restriction under Section V (Fund Component Guidelines) is too vague and may lead to potential portfolio losses.

The statement on derivative activity covers basic derivatives, "*no futures, forward contracts or options activity*", but does not address other derivatives which may lead to potential portfolio losses. This is especially true within the fixed income marketplace, where new instruments develop very quickly, compared to the equity marketplace. Many of these new instruments are synthetic securities, which can be classified as derivatives, in broad terms. A synthetic security is a security that obtains its value from other securities. Fixed income instruments that are widely used - such as mortgage-backed securities, credit card receivables and other asset backed securities - can be classified as derivatives. However, there are some derivative instruments such as IO's (Interest Only) and PO's (Principal Only) that, if used incorrectly, could cause a substantial loss in the portfolio. Both of these securities have more price volatility than a standard mortgage pass-through security, and can be considered speculative investment vehicles. Currently, some of Metro's fixed income managers are using IO's. Metro should have a discussion with each of those managers to ascertain their use of derivatives and monitor their usage over time.

Recommendation: Revise the derivative restrictions to include additional financial instruments that are deemed as inappropriate investments for the Metro plan. Metro should work with its managers and consultant to create this additional list of instruments, and Metro should monitor its adherence.

II. Investment Policies and Procedures
B. Asset Allocation Policy

Overview of Industry Practices

Asset allocation is the process of analyzing a plan's current asset class weights relative to a set of alternative portfolios. The goal of the process is to determine whether the plan's current asset class weightings are considered optimal. In this context, optimal refers to a portfolio that has the highest return for a given level of risk. To determine if the portfolio is indeed optimal, a quantitative model is run using expected returns, standard deviations and correlations between asset classes. The process of analyzing optimal portfolios focuses on the future, not the past. When conducting an asset allocation study, a plan must determine risk tolerance. There are many portfolios that are considered optimal, and choosing the correct asset mix for the plan depends on the risk constraints of the plan. In defining the risk constraints of the plan, an asset allocation study should incorporate the liability status of the plan, including plan demographics. Is the plan currently overfunded or underfunded? Does the plan have a high percentage of retirees, or are the majority of participants younger and will not require benefit payments for quite some time? Incorporating both the plan's assets and liabilities will allow the plan to properly match their asset allocation strategy to their liability payments.

Some plans will conduct an asset allocation study once a year while others will conduct a study every couple of years. The timing of the study depends on the views of the plan's Board and consultant, if one exists.

Metro's Asset Allocation Process

Asset allocation is assessed by PaineWebber on an annual basis, and their recommendations are presented to the Investment Board at a quarterly meeting. The study developed by PaineWebber focuses on assets and does not incorporate any data concerning the plan's liabilities or demographics. PaineWebber uses traditional mean-variance optimization in implementing their asset allocation model. While this methodology dates back to the work of Markowitz and Sharpe in the late 1950's and early 1960's, it remains the most common methodology for performing asset allocation studies. Inputs into the model consist of expected returns, standard deviations and correlations between asset classes. PaineWebber's Capital Market Assumptions are determined by its Asset Allocation Committee consisting of key members of its Institutional Consulting Group along with advisors from both the investment and academic communities. The asset allocation study consists of the following tables and charts:

- Efficient Frontier showing various alternative portfolios
- Expected Returns, Risk,Yield, Sharpe Ratios
- Growth of the current assets over the next 20 Years
- Probability of falling/exceeding target returns
- Series of historical results using alternative portfolio results
- Distribution of returns over various time periods

<u>Sufficiency of Metro's Asset Allocation Reports and Recommendations</u>

The asset allocation report presents in sufficient detail various tables and charts depicting the current portfolio versus alternative portfolios. The report includes standard analyses that are used in most asset allocation studies. One point to note is the weights allocated to Large Cap and Small Cap equities. The background for the study states that in developing inputs for the model, a broad based U.S. Domestic Equity assumption is used as a proxy for the U.S. market in the form of the Russell 3000. The Russell 3000 is a broad-based index which comprises a majority of the market (both large and small cap). This is done to alleviate the problem of using highly correlated asset classes in the model which can distort the results of the study. Large Cap and Small Cap equities have a correlation of 0.85, according to the background information in PaineWebber's report. However, the output from the model produces an allocation to both large and small cap equities instead of an overall allocation to U.S. Domestic Equities. It is not apparent how the model takes the allocation to U.S. Domestic equities and proportions an allocation to the large cap and small cap asset classes.

The most recent allocation study was conducted in October of 1999. During the presentation of the results at the Board meeting, the Board brought up many issues. Subsequently, PaineWebber revised their study and presented their results at a special Board meeting.

The following are issues we found within the Asset Allocation process, along with our recommendations.

Issue IIB-1: The target policy appears too aggressive given the risk objectives as defined in Section III C of the investment policy statement, and it does not address the plan's liabilities.

Issue IIB-2: The asset allocation study does not formally address risk.

The policy statement has an explicit statement on volatility under Section III C. This section states that the Board, "*in its overall investment strategy, is willing to forego potential return in strong markets for protection against a severe decline during weak markets*". Given the structure of the current portfolio and the current state of the financial markets, the fund has taken on a substantial amount of risk relative to its stated objective.

The current target policy of the plan, along with the recently approved target policy by the Board, is as follows:

	Target Policy (In policy statement)	Approved Target December 6, 1999
Equity:	70%	75%
Fixed Income:	25%	21%
Real Estate/Alternatives:	5%	4%

The asset mix approved by the Board is extremely aggressive and has a higher equity exposure relative to other public plans. In addition, the international equity exposure of Metro is much higher than other plans. In general, the international equity class has more risk than the domestic equity asset class, further increasing the overall risk of the equity portfolio. The Board raised their equity exposure even though their earlier equity allocation was aggressive, further increasing the risk of the portfolio. However, the most important issue concerns the statements made within the section on volatility (Section III C). It appears that the management of the plan is contradicting the policy statement by continually increasing the equity position in a strong market. As discussed below, even the responses of the Board members towards return and risk questions seem to contradict the actual management of the fund. Risk was apparently not considered in changing the most recent asset allocation.

Asset Allocation Comparisons
As of September 30, 1999

	Metro Nashville	State of Tenn	City of Memphis	Public Plan Sponsor Database	Greenwich Associates (All Public Plans)*	Greenwich Associates Public Plans $1 Bil – $5 Bil*
Domestic Equity	52.1%	30.9%	38.3%	46.0%	48.0%	45.0%
International Equity	22.6%	8.6%	15.8%	11.0%	11.2%	11.1%
Total Equity	74.7%	39.5%	54.1%	57.0%	59.2%	56.1%
Domestic Fixed	21.3%	52.5%	38.1%	37.0%	29.9%	33.3%
International Fixed	0.0%	4.0%	0.0%	0.0%	2.5%	1.9%
Total Fixed	21.3%	56.5%	38.1%	37.0%	32.4%	35.2%
Cash	0.2%	4.0%	3.2%	2.0%	2.2%	2.3%
Other	3.8%	0.0%	4.5%	4.0%	6.2%	6.4%
Total Fund	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

* Based on data from 1998

Three members of the Investment Board completed a questionnaire on investment objectives in August of 1999. The questionnaire was developed by PaineWebber to ascertain Board members' return objectives and risk tolerance preferences.

One of the questions asked the Board members to indicate their primary and secondary objectives for the fund. One member chose "Growth of Capital" and "Aggressive Growth of Capital" as primary objectives. The other two members choose "Preservation of Capital" as one of their primary objectives. All three members chose providing a "Real Rate of Return over the CPI index" as a primary objective.

Another question asked the members which statement they would be **least** comfortable with to ascertain their risk tolerance. One member chose " Holding Cash when the market goes up" and "Consistent, but lower returns". The two other members chose "Higher returns and greater volatility".

Two out of three Board members answered questions that would indicate a moderate stance toward risk. Yet, the asset allocation of the fund is very aggressive with a high equity exposure and high risk relative to similar public funds.

Recommendation: The role of risk must be formalized and incorporated into the asset allocation process. The asset allocation study needs to consider liabilities versus assets, plan demographics and the risk tolerance of the Board members. In addition, both asset allocation and performance reports should contain some analyses that display the risk profile of the fund.

Issue IIB-3: The re-balancing of the portfolio's target policy, as recommended by PaineWebber in their latest asset allocation study dated October and December 1999, was not justified and only increased transaction costs.

Issue IIB-4: The Board's ultimate decision in setting the asset allocation policy for the calendar year 2000 was made without any justification or statistical merit.

Issue IIB-5: By only showing selective information, the most recent asset allocation study (October and December 1999) presented a misleading picture and led to sub-optimal decisions.

At the Board's regularly scheduled quarterly investment meeting, dated November 18, 1999, PaineWebber presented its annual asset allocation study. The study, dated October 1999, recommended that the Board adopt a target policy as defined by Mix 4 on the efficient frontier. The plan's current portfolio was compared against a series of alternative portfolios on the efficient frontier. Given the statistics produced by PaineWebber for each of the portfolios highlighted on the efficient frontier, the proposed portfolio (Mix 4) did not offer any incremental benefits to the current portfolio. Therefore, there was no compelling reason to warrant a re-balancing of the current portfolio. According to the Executive Secretary, the latest report by PaineWebber recommended minimal changes to the plan's asset allocation policy compared to previous allocation changes in prior years.

According to the asset allocation report dated October 1999, the proposed portfolio (Mix 4) showed an expected return of 10.35% which was **only 3 basis points greater** than the existing portfolio (10.35% vs. 10.32%). The risk of the proposed portfolio (Mix 4), as measured by the standard deviation of the portfolio, **increased by 9 basis points** versus the existing portfolio (12.75% vs. 12.66%). The Sharpe ratio, which measures the amount of return per unit of risk, remained the same for both portfolios at 0.58. In other words, the existing portfolio and the proposed portfolio were essentially the same. An increase of 3 basis points in the expected return using a mean-variance model for asset allocation is statistically irrelevant.

During their presentation to the Board, PaineWebber strongly recommended re-balancing the portfolio to the proposed portfolio, even though the benefits of the proposed portfolio were clearly minimal. Although not pointed out by PaineWebber, a by-product of re-balancing the portfolio is an increase in transaction costs. PaineWebber was strongly advocating a change in asset policy before year end. Specific investment managers would be authorized to purchase and sell securities to meet the new target policy. Transaction costs occur at the time of the sale and also at the time of purchase. In other words, the plan would **incur transaction costs** (expenses)

to meet their new target policy **with no apparent benefits**. **PaineWebber would directly benefit** by the increased turnover and the higher allocation to large cap domestic equity because they would receive higher commissions. There was a general discussion concerning re-balancing issues by the Board. A motion was made by a Board member to adopt the proposed portfolio but died for a lack of a second. It was then moved that the motion be deferred to a special called meeting of the Board.

At the special called meeting of the Board held December 6, 1999, PaineWebber presented a revised asset allocation study. The study, dated December 1999, recommended a proposed portfolio labeled Mix 5 instead of the previous recommendation (Mix 4). In analyzing the differences between the two recommendations, the new proposed portfolio (Mix 5) had an expected return that was less than the old proposed portfolio (Mix 4), but also had less risk.

	Expected Return	Risk (Standard Deviation)
Mix 4 (Original Recommendation)	10.35%	12.75%
Mix 5 (New Recommendation)	10.30%	12.67%
Difference	0.05%	0.08%

KPMG

However, **in the revised asset allocation study dated December 1999, there was no comparison between the proposed portfolios versus the existing portfolio**. The efficient frontier did not show the statistics of the existing portfolio. Oddly, the original study of October 1999 did include a comparison of the proposed portfolio versus the existing portfolio. It appears the intent of the report was to recommend Mix 5 by contrasting the portfolio to another proposed portfolio (Mix 4) but not to the existing portfolio. If the revised asset allocation had included the existing portfolio for comparative purposes, the Board would have seen the following:

Analysis of Revised Recommendation
Mix 5 versus the Current Portfolio

	Expected Return	Risk (Standard Deviation)
Mix 5 (New Recommendation)	10.30%	12.67%
Current Portfolio (From Original Study)	10.32%	12.66
Difference	-0.02%	0.01%

Although slight, **the existing portfolio had a higher expected return and a lower risk than the proposed portfolio (Mix 5)**. If the Board had reviewed these statistics, the only logical conclusion would have been that the existing portfolio was the optimal portfolio, and no changes could have been justified. There would be no need to re-balance the portfolio and incur transaction costs.

After a lengthy discussion, the Board approved by a 3 to 1 vote a new asset allocation mix that was not even one of the proposed mixes recommended by PaineWebber. It was simply stated that the fund should move some small cap equities and international equities into large cap equities. There was no logical basis for that decision, which appears to have been made simply to end the discussion on re-balancing the portfolio. That decision to re-balance the portfolio caused the portfolio to incur even more unnecessary transaction costs than the re-balancing proposed by PaineWebber. As the consultant, PaineWebber had an obligation to inform the Board that their decision was not justified, yet PaineWebber did not do so. When asked, PaineWebber representatives indicated that the Board had the prerogative to make the ultimate decision and that it wasn't their place to contradict the Board's decision.

The decision by the Board to implement the new target policy resulted in the transfer of $113 million dollars of plan assets. To accomplish the Board decision, assets were transferred from five investment managers (Small Cap and International mandates) and one cash account to five other investment managers (Large Cap Equity mandates).

In order to transfer assets between accounts, the small cap and international investment managers were required to sell securities to raise the appropriate level of cash. The cash was then transferred to the large cap managers who then purchased their specific securities. The cost of re-balancing the portfolio can be determined by the amount of commissions paid out to the various brokers. To calculate the amount of commissions, it was necessary to determine the level of cash that each manager held in their account before selling securities. Cash was then deducted

from the amount of assets that the managers were instructed to transfer. Commissions were then calculated on the securities that were sold to meet the remaining guidelines. In this re-balancing effort, PaineWebber executed the majority of trades. The total amount of commissions on the transfer of assets amounted to approximately $300,000 dollars. Since the portfolio's returns are expected to decrease while risk increases, this means that the impact of this re-balancing was that PaineWebber generated commission revenue by diminishing the overall position of Metro's pension fund investments.

Recommendation: Require the consultant to present all asset allocation studies with consistent data and format, including analysis and the impact of transaction costs on any re-balancing recommendation. All decisions should be justifiable and have a sufficient financial and statistical basis to support Board decisions.

Issue IIB-6: The asset allocation study, by not always including all of the relevant asset classes of the plan, does not present a complete picture of the issues.

The asset allocation study, dated October 1999, did not include alternative investments as one of the inputs into the model. Alternative investments include venture capital and hedge funds. While PaineWebber is not technically responsible for alternative asset classes as defined in the investment policy statement, alternative investments should be included in their asset allocation study. As of September 30, 1999, venture capital and hedge funds accounted for 3.57% of the fund's assets ($46.3 million). The asset allocation study should highlight to the Board whether alternative investments are forecasted to add value to the fund on a return-risk basis. Although it is difficult to forecast returns and risk for alternative investments, there still needs to be some form of justification before investing plan assets into this asset class. If, according to the model, alternative investments are not attractive on a return-risk basis, then it is the Board's responsibility to reduce and eliminate the allocation of these investments. It must be noted that since these investments are not very liquid, eliminating these funds from the portfolio might take quite some time, depending upon the terms of the contracts. In addition to the return-risk tradeoff, the Board must also take into consideration the time and effort required to evaluate and monitor alternative investments. Can the Board devote the resources to properly evaluate and monitor alternative investments? Since alternatives are a small portion of the portfolio, the benefits of investing in alternatives may be outweighed by other factors.

In the December 1999 asset allocation study, PaineWebber included alternative investments as inputs into the model. However, they gave the asset class a weighting of zero based on their inputs. This could mean the Board should either reduce or eliminate new investments in alternative investments, based upon the model's results. Alternative investments are illiquid investments, and the Board may not be able to liquidate the portfolio for many years due to contract terms. By giving the asset class an appropriate weighting, the return and risk numbers generated by the model would be much more accurate. The recommended portfolio (Mix 5) has an expected return of 10.30% and a standard deviation of 12.67%, using a weight of zero for alternative investments.

In an updated version of the asset allocation study, originally dated December 10th, alternative investments are given a weight of 3.0% for the proposed portfolio (Mix 5). All the other

alternative mixes display a weight of zero for alternatives. It is unclear in each of the asset allocation studies conducted by PaineWebber how alternatives are used within the model. Looking back at an asset allocation study conducted in November of 1998, PaineWebber included a weight of 3.0% for venture capital in each of the alternative mixes, which is appropriate. For a Board member making a difficult asset allocation decision, the lack of continuity between the various studies raises some serious issues. In each asset allocation study, all proposed portfolios should be compared against the current portfolio before a decision is made. In addition, each asset allocation study should either include a current allocation weight for alternatives in all proposed portfolios or assign a weight of zero for the asset class. A weight of zero would signal that the Board should eliminate alternatives from the portfolio.

Recommendation: Each asset allocation study should include all of the relevant asset classes and must be consistent between different versions.

Issue IIB-7: The asset allocation reports do not include a formal recommendation.

The asset allocation reports presented to the Board do not include a formal written recommendation from PaineWebber. The only indication that PaineWebber is recommending an alternative mix is through one of the circles on the efficient frontier labeled as a "clear" circle. All other alternative mixes have shaded circles. The report includes all the necessary statistical evidence for the alternative mixes but does not summarize the advantages of PaineWebber's "chosen proposed portfolio". The explanation of the alternative mixes and a final recommendation are presented orally at the Board meetings. While the discussions at the Board meetings may include all of the necessary support required to make an informed decision, there is no audit trail. If someone wished to review previous asset allocation studies to understand the Board's decisions, they would have to read through all of the statistical data and come to their own conclusion. However, the statistical data within the report may not be conclusive regarding the final Board decision. The lack of a formal conclusion does not allow parties other than Board members to obtain a clear understanding of the Board's decision making process.

Recommendation: Require the consultant to offer alternatives, recommendations and justifications for asset allocation recommendations in writing.

II.	Investment Policies and Procedures
C.	Investment Manager Selection

Overview of Industry Practices

After a plan has set its asset allocation strategy, the next step in the development of an investment portfolio is the selection of investment managers. More than any other phase, the selection and monitoring of investment managers requires the most time and effort from the plan's Board members. It is in the manager selection phase that the Board will further define their asset allocation strategy by developing specific style allocations for each asset class. For instance, suppose a plan has set a large cap equity allocation of 40% of total plan assets. Before choosing investment managers, the plan must decide how to split the 40% allocation into the various investment styles. In this case, how much of plan assets will be allocated to growth, value or a core strategy?

After a plan has set its style allocations, the selection of investment managers can proceed. Managers are evaluated using various criteria developed by the Board and by their consultant. In the selection process, a plan will focus on a manager's performance record, risk profile, stability of the organization and its investment professionals and, lastly, investment management fees. The majority of pension plans hire a consultant to help them select managers, among other consulting functions. The consultant, after performing a search for specific investment styles, will present the Board with a report detailing various statistics on each of the managers they have chosen. The number of managers initially presented to the Board varies by investment style, but the list of managers should allow the Board sufficient choice. The Board will then select several managers who will make a formal presentation to the Board. After a formal presentation, the Board will discuss and choose an investment manager for their plan.

Within the investment manager selection process, the Board, with help from their consultant will make a determination concerning the use of active versus passive management for each investment style. This decision is usually based on the Board and/or consultant's opinion concerning the value of passive management within a portfolio. The role of passive management is determined on an asset class by asset class basis.

Metro/PaineWebber's processes

Deriving investment manager selection criteria

PaineWebber has overall responsibility for developing criteria for the investment manager selection process. The Board has defined some manager qualifications in their investment policy statement. There are separate guidelines for managers within the real estate, venture capital and alternative investment asset classes, and related issues will be discussed in those sections of the report. For all other managers, the investment policy statement requires that they must have a minimum of $200 million of assets under management, and the principals of the firm must have five years of experience. This applies to all asset classes with the exception of small cap and alternative managers. Small cap managers must have a minimum of $100 million of assets under management, with the principals having at least five years of experience. The Board has reduced the minimum level of assets requirement for small cap managers. The small cap asset class is

more specialized than other asset classes, such as large cap equity. There are fewer managers who offer small cap investment services. In addition, the amount of assets invested within the small cap asset class is lower than other asset classes. Therefore, in order to perform a small cap manager search that allows the Board sufficient choice, the requirement for assets under management is reduced.

In addition to the above criteria mandated by the Board, PaineWebber will perform a manager search using their own selection criteria and analytics.

Determining a universe of managers for selection

The Metro Board uses PaineWebber to develop a universe of managers for the selection process. The universe of managers is selected by using several outside databases such as the Plan Sponsor Network, Mobius and CDA. These systems are standard third party databases in the industry used by many consulting firms and others. These databases are used as a starting point to screen managers based on quantitative measures.

Methodology for selecting a short list of finalists

After Metro and PaineWebber have identified a specific style that requires a manager search such as Large Cap Growth, PaineWebber will narrow the universe of managers by first screening universes based on quantitative criteria. After the initial quantitative screen, PaineWebber sends out a questionnaire to potential investment manager firms. The questionnaire covers subjects such as organization structure and personnel, assets under management, investment process, trading, compliance and other relevant information. PaineWebber then follows up with a company on-site visit. Based on the questionnaire and the on-site visit, the manager is evaluated using a proprietary scoring system and then given a rank. The rank defines whether a manager meets PaineWebber's standards for inclusion in their client portfolio. PaineWebber, in its investment manager selection function, creates a pre-approved list of managers for specific asset class styles. Managers are chosen from their pre-approved list and presented to the Board during the selection process. The Board may ask PaineWebber to include a manager not on their list if the Board has determined that they wish to include a particular manager in the selection process.

Selecting the finalist

The three managers that were selected by Paine Webber make a formal presentation to the Investment Board. PaineWebber does not produce any advance hardcopy documentation for the Board on manager qualifications. Based on these presentations and input from PaineWebber, the Board will hire a manager(s). Present at these meetings are a majority of Board members, the Executive Secretary, other members of Metro and members of PaineWebber (usually Keith Phillips and Steve Glasgow).

Throughout the investment manager selection process, PaineWebber is the primary contact before, during, and after the search function. The Board has little contact with the investment managers, with the exception of manager presentations made during Board meetings.

The following are issues we found within the Investment Manager Selection process, along with our recommendations.

Issue IIC-1: PaineWebber provides no initial documentation to the Board to select potential finalists for a search.

In its initial recommendation of managers for a search, PaineWebber will usually present three managers to the Board to make a formal presentation. The presentation of managers to the Board by PaineWebber is completely oral. PaineWebber does not supply the Board with any hardcopy documentation on manager qualifications. Without any hardcopy documentation to examine, it is difficult - if not impossible - for the Board to query PaineWebber on specific manager qualifications. This process dilutes the power and independence of the Board. Although PaineWebber was hired to perform the search function for the Board, the Board is not taking a proactive approach in the process. They appear to be relying too heavily on PaineWebber and not fulfilling their oversight responsibilities. In addition, without any documentation there is no audit trail for this selection of finalists. Any future Board member or staff member within Metro would not be able to understand the decision making process. Finally, there is limited written justification for the finalists. Since the selection of investment managers is a fiduciary responsibility of the Board, the Board needs to know that this critical task was conducted properly and completely.

Recommendation: The investment consultant should supply the Board with a formal hardcopy document on the managers they are recommending, including the criteria and methodology used in the search process.

Issue IIC-2: PaineWebber provides only three managers in their initial recommendation to the Board.

Providing only three managers in the initial manager selection process does not allow the Board sufficient choice. The discussion of managers is done orally with no written documentation. By presenting only three managers to the Board, PaineWebber restricts the judgement of the Board members by restricting their choices. If a member of the Board chose to eliminate one firm from the process, the final presentation would consist of only two managers. In this process, PaineWebber is restricting the Board's ability to act independently. The Board should be given sufficient choices in order to allow them to make an independent decision.

Recommendation: The investment consultant should supply a list of potential managers that allows the Board sufficient choice. As an example, if there is a search for large cap growth managers, PaineWebber should supply five to ten semi-finalist managers. The Board could then choose three managers to interview from this list of semi-finalists.

Contract negotiation phase

After a manager has been selected for the Metro plan, a fee is negotiated with the manager essentially by asking the manager for the "most favored nation clause". This clause means Metro receives the lowest fee that is given to other portfolios managed by the investment manager that are similar to Metro's mandate.

Issue IIC-3: The use of the most favored nation clause does not guarantee Metro the best fee quote.

This approach of negotiating fees sounds good in theory, yet it has practical limitations that make it undesirable. Metro is asking for the best price that the manager gives to other plans for this type of product. One problem with this approach is that there can be a wide interpretation in defining similar plans and similar mandates. Does "similar plans" mean only public plans or all pension plans? Another problem with the most favored nation clause is that it precludes Metro from benefiting from managers that might be willing to discount fees to get into the public plan sector by including Metro on their client list. A final problem with the most favored nation approach is that Metro might not be benefiting from instances where the manager would give a fee break to a plan that uses the manager for multiple mandates. Metro has this case with Nicholas Applegate who manages the International Equity and Emerging Markets portfolios for Metro. It is similar to a group discount. Although using the favored nation clause may result in Metro receiving the lowest fees possible, there still needs to be a fee negotiation process between Metro and the investment manager. Since all fees are negotiable, aggressively negotiating fees is the only process available for Metro to receive the best fee quote possible.

Recommendation: Negotiate the lowest possible fee by:

1. **Comparing the fees paid by other clients who use the same or similar managers.**
2. **Comparing managers to other Metro managers in the same asset class.**
3. **Using fees as one of the screening and selection criteria in the manager search process.**
4. **Continuing to monitor fees by including fee schedules and comparative information on fees in the quarterly performance report.**
5. **Becoming more aggressive in fee negotiations with investment managers.**
6. **Continuing to include the most favored nation clause.**

Termination Policy

Managers are terminated based on recommendations from PaineWebber. At the quarterly meetings, PaineWebber will discuss their recommendations to the Board orally while also using the performance pages from the quarterly performance reports as documentation on the manager's performance. After a discussion about the manager, the Board will vote on whether to accept PaineWebber's recommendation. Managers can be terminated for a number of reasons,

including poor performance, personnel turnover, style drift and other factors. In previous years, a manager was first placed on probation before being terminated. However, because the manager was notified that they were on probation, they sometimes changed their investment process to avoid being terminated. The placing of a manager on probation added risk to the portfolio by allowing the manager to change styles to increase their performance results. This process was discontinued in 1998.

The following set of tables display the managers that have been employed by Metro over the last five years by asset class. The beginning date is the first month of the quarter where the manager had a full three months of performance returns. The ending date is the last month of the quarter where the manager had a full three months of performance returns.

	Beginning Date of First Quarter	Ending Date of Last Quarter	Years Employed By Metro	Recommended By PaineWebber	Terminated By Metro
U.S. Domestic Equity					
Large Cap Growth					
Lee Danner	Jul-90	Sep-97	7.17	Unknown	Y
Atalanta Sosnoff	Oct-94	Dec-97	3.17	Y	Y
Cohen, Klingenstein	Oct-97	Dec-99	2.17	Y	
Montag & Caldwell	Jan-98	Dec-99	1.92	Y	
Edgewood	Apr-98	Dec-99	1.67	Y	
Large Cap Value					
Bank of Nashville	Jul-90	Jun-97	6.92	Unknown	Y
Southern Fiduciary	Jan-85	Jun-98	13.50	No	Y
Flippin Bruce & Porter	Jul-93	Dec-99	6.42	Y	
Fox	Apr-98	Jun-98	0.17	Y	Y
NWQ	Jan-99	Dec-99	0.92	Y	
Core					
Trevor Stewart	Jul-93	Jun-97	3.92	Y	Y
Avatar	Jul-93	Mar-95	1.67	Y	Y
Small Cap Growth					
Govett	Jul-95	Sep-95	0.17	Y	Y
Insight	Jan-96	Dec-99	3.92	Y	
George Bjurman	Jan-96	Mar-98	2.17	Y	Y
Furman Selz	Jan-96	Jun-98	2.42	Y	Y
Van Waggoner - Emerging	Apr-96	Dec-97	1.67	Y	Y
Van Waggoner - Micro	Apr-96	Dec-97	1.67	Y	Y
Aeltus	Jan-99	Dec-99	0.92	Y	
Nicholas Applegate	Jan-91	Sep-96	5.67	Joint*	Y
Small Cap Value					
Commerce	Oct-93	Sep-96	2.92	Y	Y
Neumeier	Jul-95	Dec-98	3.42	Y	Y
Aronson & Partners	Apr-98	Dec-99	1.67	Y	

* Metro employed two consultants at that time, PaineWebber and Equitable

	Beginning Date of First Quarter	Ending Date of Last Quarter	Years Employed By Metro	Recommended By PaineWebber	Terminated By Metro
International Equity					
International					
Nicholas Applegate	Jan-94	Dec-99	5.92	Y	
Ivory & Sime	Apr-93	Sep-94	1.42	Y	Y
Lazard Freres	Jan-95	Sep-99	4.67	Y	
Brandywine	Jan-95	Sep-98	3.67	Y	Y
Emerging Markets					
Nicholas Applegate	Jan-95	Dec-99	4.92	Y	
Govett	Jan-95	Mar-98	3.17	Y	Y
U.S. Fixed Income					
Fixed - Intermediate					
Third National	Jan-88	Sep-97	9.67	Unknown	Y
Davis Hamilton Jackson	Jan-97	Sep-98	1.67	Y	Y
Companion Capital	Oct-97	Dec-99	2.17	Y	
Fixed - Long					
Weaver Barksdale	Jan-88	Sep-94	6.67	Unknown	Y
ARM Capital	Oct-94	Dec-99	5.17	Y	
Vaughan Nelson	Oct-94	Sep-96	1.92	Y	Y
Kleinwort Benson	Oct-94	Dec-94	0.17	Y	Y
Trevor Stewart	Apr-96	Jun-99	3.17	Y	Y

Active Management vs. Passive Management

Currently, Metro does not have an allocation to a passive investment in its portfolio. All managers for Metro are active managers whose objective is to outperform their respective benchmarks. The use of passive investments within the Metro portfolio was considered by the Board using a PaineWebber document labeled "What is Indexing" during the November 15, 1996 Board meeting. The main conclusion of the analysis was that, although passive management can play a useful role in a portfolio, a consultant can add value to the portfolio by correctly selecting style specific managers. PaineWebber represented that they can construct style specific managers (ex. Large Cap Growth or Large Cap Value) who can outperform their specific style benchmarks. They believe that combining these managers into a total portfolio will allow the overall portfolio to outperform its benchmarks. Hence, PaineWebber's position is that active management will outperform passive management.

Issue IIC-4: The use of a soft dollar commission arrangement does not allow PaineWebber to be objective in recommending passive investments.

PaineWebber is presently paid through soft dollar commissions. The commissions are generated through trading activity, principally equity trading activity. Presently all of Metro's investment managers are considered active managers. An active manager will trade much more frequently than a passive manager in order to generate excess returns and outperform the benchmark. In a passive investment, trading is only executed to handle cash flows and rebalance the portfolio versus its appropriate benchmark. Therefore, active managers will generate significantly more transactions relative to passive managers, which leads to increased commission costs to the portfolio. The Metro investment policy statement discusses certain criteria that are used to analyze managers. It states that portfolio turnover will not be a factor in evaluating managers, if other objectives are met. It appears that both Metro and PaineWebber are unconcerned about portfolio turnover and the amount of commissions that are generated from trading activity.

Within the "What is Indexing" document, PaineWebber has misrepresented a statement from John Bogle of Vanguard, one of the leading proponents of passive management. PaineWebber left off the last two lines of Bogle's full quote. In the PaineWebber document, the John Bogle quote is:

"(1994 and 1995) were the two best years for comparison (for indexing) in the past quarter century…the impressive relative performance of the Standard & Poor's 500 Index over the past two years will not soon—if ever—recur."

However, the full quote is:

"(1994 and 1995) were the two best years for comparison (for indexing) in the past quarter century…the impressive relative performance of the Standard & Poor's 500 Index over the past two years will not soon—if ever—recur. It is an historical artifact that will soon be viewed as exactly that. But don't relax too much, for I'm equally confident that the long-term record of superiority (of indexing) will repeat itself over and over."

By misrepresenting the John Bogle quote, PaineWebber is implying to the Board that passive investing had two superior years in 1994 and 1995, but that Bogle did not expect that trend to continue in the future and that it is, therefore, far better to choose active managers who will outperform their benchmarks rather than invest passively. But Bogle's full quote was saying the opposite - that he expected passive investing to outperform active investing in the future. From a commission standpoint, PaineWebber has nothing to gain from recommending passive investments. Passive investments do not generate as high a level of commissions as active managers. Since PaineWebber receives the majority of domestic equity commissions, they would receive fewer commission dollars from passive investments. This arrangement makes PaineWebber less than objective in their analysis of active vs. passive investing, clearly demonstrated in their misquoting John Bogle.

Interestingly, the last piece of John Bogle's quote "*But don't relax too much, for I'm equally confident that the long-term record of superiority will repeat itself over and over*" has come true. In the large cap equity asset class, a passive investment, as represented by the S&P 500, has outperformed the majority of active managers since his original quote.

After this presentation, the Board decided not to invest any assets in passive investments. The Board concurred with PaineWebber's recommendation that PaineWebber could add value to the fund by selecting style specific managers. However, looking back at the historical performance of the plan, Metro's large cap equity composite has not been able to outperform the S&P 500 except over the last one-year time frame.

Large Cap Equity Segment
As of September 30, 1999

	Lastest Qtr	One Year	Two Years	Three Years	Five Years
Metro's Returns	-8.80	32.13	14.27	20.36	22.09
S&P 500 Index Returns	-6.25	27.80	18.05	25.09	25.03

PaineWebber's presentation to the Board occurred in the fourth quarter of 1996. In order to quantify the Board's decision to remain with active management within the large cap equity segment of the portfolio, the returns of the Metro large cap segment were compared versus a fully passive approach over the last three years. Using the annualized returns shown in the above table, **Metro would have earned an extra $58.5 million dollars over the three years ending September 1999, if they had invested all of their large cap equity passively.** Using the latest quarterly returns, Metro would have earned an extra $**60.3 million dollars over the three years ending December 1999 if they had invested all of their large cap equity passively, an increase of $1.8 million dollars over the last quarter's results.**

Recommendation: Reconsider passive investments in an objective fashion. Include an analysis of the savings in both management fees and commission dollars from passive investments relative to active management.

Overview of Industry Practices

Many pension plans presently employ an investment consultant to advise them on plan specific investment issues. Consultants are hired for a variety of reasons, but the most common reason is that the Investment Board lacks all the necessary investment skills to manage the assets of the plan properly. Although the Board may have certain investment skills, a consultant is able to advise the Board on issues such as asset allocation policy, selection and monitoring of investment managers and performance reporting. In addition, these plans are looking for independent financial advice that is free from many of the potential conflicts of interest that may arise when investment decisions are handled internally. In some cases a Board may have the staff to perform the necessary analysis required by the plan but may choose to have an independent third party opinion. Most plans will hire one consultant as a generalist to handle all the related investment issues. Some of the larger plans, plans with assets greater than $1 billion, will hire multiple consultants as their asset bases grow in size and complexity. Many of those larger plans are using complex asset classes in their portfolios, such as alternative investments, which require a great deal of time and effort to analyze.

Role of Metro's investment consultant

The role of the consultant is defined in the investment policy statement under Section IIB. The consultant will help advise the Board on a variety of issues including asset allocation, manager search and selection, performance reporting and general oversight. In this capacity, the consultant acts as a fiduciary to the plan and is held up to the Prudent Investor Rule. The investment policy clearly states that the consultant will provide opinions - but not necessarily recommendations or supporting data - on real estate, venture capital and other alternative investments. It is important to note that the investment policy statement does not distinguish between the different types of consultants. The roles stated in the policy are in regard to consultants in general. It appears from these statements that the Board does not seek any detailed advice on real estate, venture capital, and alternative investments. This implies that the Board is capable of researching, recommending and monitoring these investments by itself with very little outside help. An outside attorney does advise the Board on some issues within this alternative asset class, with a specific emphasis on real estate.

Interface between the Consultant, the Executive Secretary and the Investment Board

In the investment policy statement under Section IIC, the Executive Secretary shall support the investment functions of the Board, which includes arranging meetings and agendas, preparing materials for meetings and writing minutes of each of the meetings. Within Metro, the consultant, PaineWebber, interacts directly with the Executive Secretary who then prepares materials for the Board. The direct interface between PaineWebber and the Board occurs mainly at the quarterly Investment Board meetings.

Metro's process for selecting and reviewing the consultant

Before 1988, the Investment Board retained one consultant. From 1988 through 1991, the Investment Board retained two consultants, Equitable for equities and another firm for fixed income. Sometime during this period, the fixed income consultant moved to PaineWebber. In 1991, the Board terminated Equitable and hired PaineWebber to handle the entire consulting relationship. The initial contract for PaineWebber dates back to September 20, 1990 which includes the period when PaineWebber shared consulting services with Equitable. When the Board hired PaineWebber as the sole consultant in 1991, they extended PaineWebber's original contract for an additional year. Thereafter, the contract could be extended for one-year periods, unless either party notified the other that they wished to terminate the contract. After the initial two-year contract was completed, the contract was extended for one-year time periods from August 16, 1992 thru August 16, 1997. On November 11, 1996, the Investment Committee extended PaineWebber's contract by two years from August 16, 1997 to August 16, 1999. According to one of the current Board members, this extension was initiated by a former Director of Finance who was pleased with PaineWebber's services. On November 19, 1998, the Investment Committee extended PaineWebber's contract from August 16, 1999 to August 16, 2002, with an additional extension of 2 years from August 16, 2002 to August 16, 2004. One of the current Board members reported that this second extension was granted in order to move the contract ending date away from the election cycle. The extensions in November of 1996 and 1998 occurred nine months prior to the expiration of the contract.

Inception Date/ Extension Date	Beginning Date of Contract	Ending Date of Contract	Term of Contract
August 1990	August 1990	August 1992	2 years
August 1992-1997	August 1992	August 1997	1 year extensions
November 1996	August 1997	August 1999	2 years
November 1998	August 1999	August 2004	2 years + 2 year extension

The following are issues we found within the Role of the Investment Consultant section, along with our recommendations.

Issue IID-1: The consultant contract has never been put out for public bid since PaineWebber was hired as the sole consultant of the fund in 1991.

Since 1991, PaineWebber has been the sole consultant to the Metro plan. Their contract has been extended numerous times by the Investment Board. Since the hiring of PaineWebber as the sole investment consultant to the plan, the Investment Board has never put out a public bid for consultants. This arrangement is highly unusual, especially among public funds. Many public funds, under state law, are obligated to have their consultant(s) contracts re-bid in an open environment periodically. In the State of Tennessee, there is not a requirement to place a contract out to bid. An RFP is typically made public via various trade journals allowing any consultant

firm to bid for the consulting contract. The current consultant to the plan can also reapply for the contract by submitting their bid.

In many cases, the current consultant is re-hired by the plan; however, the public bidding process serves a very important purpose. By reviewing other RFPs, the Board can compare the services and fees of their current consultant versus other consultants. This would allow Metro to review the fee they pay PaineWebber in relation to other consultant fees. It would also allow Metro to discover how other consultants structure their fees. Would the other consultants structure a soft dollar commission agreement similar to PaineWebber, or would they prefer structuring a hard dollar arrangement? If Metro discovered that their fee arrangement was higher than fees being offered by other consultants for comparable services, they would be able to negotiate a better fee arrangement. In addition, Metro would be able to compare services of other consultants to PaineWebber. Do other consultants include venture capital, real estate and alternative investments as part of their standard services? Do other consultants provide performance reports that provide additional analyses that would be useful to the Board? These are some of the questions the Board would be able to answer by placing the contract out to bid.

Recommendation: **The consultant contract should be placed out to a public bidding process periodically issuing and reviewing RFPs. The RFP should be publicly advertised in an industry publication such as "Pension and Investments".**

Metro's fees paid to their consultant

PaineWebber is paid by Metro in soft dollar commissions. The various investment managers direct their trading activity through PaineWebber who then receives a commission on the transactions. In its initial contract with the Metro Board, PaineWebber suggested using a soft dollar commission arrangement to pay for their fees in lieu of a hard dollar arrangement.

The theory behind the use of a soft dollar commission arrangement is simple. The investment managers of the fund will be trading on an ongoing basis in managing their portfolios. The trading activity that results from active management decisions will be sent to various brokers for execution. Each individual manager determines their own broker network. The Metro fund will incur expenses via broker commissions that are not part of the investment management fee. In a soft dollar arrangement, some of these expenses (commissions) will be used to pay for consultant services instead of writing a check to the consultant; theoretically this saves the plan the more direct expense of withdrawing money from the fund to pay for consultant services.

The compensation section of the consultant contract details the calculation of PaineWebber's fee. There is a series of compensation rates that are applied to three tiers of the fund's market value. In addition, the contract states that transactions will be placed through PaineWebber's Account Trading Desk and will have a commission rate of 6 cents per share, with a minimum ticket charge of $75. These charges are in place until PaineWebber's contracted fee has been reached. If the commission fees generated by investment manager trades through PaineWebber do not reach the contracted fee, then Metro would be obligated to pay PaineWebber the remaining fee by writing them a check. On a quarterly basis, PaineWebber discloses commissions that were received for the latest quarter.

Issue IID-2: The use of soft dollar commissions to pay for consultant services creates numerous conflicts of interest.

Issue IID-3: The Investment Board has not analyzed PaineWebber's compensation.

The Investment Board of Metro has decided to pay PaineWebber using soft dollar commissions instead of a fixed hard dollar amount. In the initial contract phase, PaineWebber had recommended to the Board that their fee be paid in soft dollars. The main objective in hiring a consultant is to receive objective, independent, third party investment advice. The use of a soft dollar arrangement, while in theory sounds like it makes sense, serves to impair the objectivity of the consultant. Under this arrangement, the consultant has a monetary stake in many of the decisions that are made on behalf of the pension plan. The ultimate goal in a soft dollar commission arrangement is to generate commissions from trading activity, which directly compensates the consultant. It is difficult for the consultant to be objective when their compensation is based on decisions that have a direct impact on their commission earnings.

For the one year ending June 30, 1999, PaineWebber received approximately $1.4 million in commissions from domestic equity transactions, 95.8% of which were traded through PaineWebber. During the previous year ending June 30, 1998, PaineWebber also earned $1.4 million in commissions. Many of these trades resulted from re-balancing the portfolio due to asset allocation studies, from re-balancing the portfolio to stay within target ranges and from investment sales and purchases related to terminating and hiring investment managers, all of which is activity that is based on PaineWebber's recommendations to the Board.

The issue of a soft dollar commission arrangement was discussed by the Board in 1991 when PaineWebber became the sole consultant to the Metro plan. After that, the only documentation surrounding the issue of soft dollar commissions was a brief memo sent by PaineWebber to the Investment Board in 1996. The memo addressed some comments made by Metropolitan Council members regarding the use of soft dollar commissions but did not detail PaineWebber's soft dollar commission arrangement with Metro. Other than the initial discussion in 1991 and the receipt of the memo from PaineWebber, the Board has not formally addressed the issue of compensation to PaineWebber. In 1998, PaineWebber, at the request of one Board member, began disclosing some of the commissions they receive on a quarterly basis in a one page summary in the back of the quarterly performance reports. The Board appears to have never focused on PaineWebber's total compensation. Over the last year, PaineWebber received a total of $1.5 million dollars in commission revenues (including fixed income trades) to pay for their consulting services. Fixed income trades do not generate actual commissions but are executed on a principal basis. The broker receives income from trading the security and earning a spread. The consultant contract has never been put out to bid, nor has the Board ever commissioned a study of consultant fees to determine if they are paying fees similar to other plans. The PaineWebber contract has continually been extended without a detailed analysis of their services and fees.

As shown in the following table, most public funds pay their consultants in hard dollars rather than in soft dollar commissions. For plans similar to Metro's, that is, plans having assets between

$1 billion and $5 billion, only 7% of those plans exclusively use a soft dollar commission arrangement to pay the consultant.

Payment of Investment Consulting Services
Data Reported: As of 1998

	Percentage of Fees in Hard Dollars	Percentage of Fees in Soft Dollars	Percentage of Fees in Both Hard & Soft
Public Funds	85%	6%	9%
State Funds	87%	7%	6%
Municipal Funds	84%	5%	11%
$1 – $5 billion	81%	7%	12%

Source: Greenwich Associates, 1998 Investment Consultants – Market Dynamics Report

The next table outlines the fees that are paid to consultants by public funds. The mean fee paid by a public plan to its consultant in hard dollars is approximately $118,000. Plans that are similar to Metro in size pay approximately $163,000 in investment consulting fees. For consultants that use a soft dollar arrangement, commissions were converted into a hard dollar equivalent for this survey. For plans similar to Metro in size, the mean fee converted from soft dollars to hard dollars was approximately $158,000. As shown in the table below, Metro is paying excessive fees for consulting services, relative to other funds.

Mean Fees for Retainer Investment Consulting Services
Data Reported: As of 1998

	Mean Fee In Hard Dollars	Mean Fee In Soft Dollars
Public Funds	$118,000	$136,000
State Funds	168,000	176,000
Municipal Funds	92,000	103,000
$1– $5 Billion	163,000	158,000
Metro (1999 fiscal year)	788,747 (1)	788,747 (1)

Note: Mean fee for soft dollars was converted to a hard dollar equivalent. Each manager in the survey who used a soft dollar arrangement was asked to convert their fee into hard dollars. This allowed the survey to accurately portray the conversion by using the consultant's actual conversion ratio.

1. Fee based upon contractual agreement with PaineWebber as calculated by PaineWebber.

Source: Greenwich Associates, 1998 Investment Consultants – Market Dynamics Report except for Metro figures

Recommendation: **Eliminate the payment of soft dollar commissions to pay for consultant advisory services, and move to a hard dollar fixed fee arrangement where the compensation is not excessive relative to other public funds.**

Issue IID-4: **The language describing PaineWebber's compensation is extremely convoluted and can be misrepresented in numerous ways.**

The language in the consultant contract used to describe the payment of commissions to PaineWebber is extremely difficult to understand and is not consistent. The first part of PaineWebber's fee is calculated by taking the rate of .000425 and multiplying that rate by the total market value of the fund as of each June 30th. This fee is capped at $300,000 of agency commissions. The use of agency commissions excludes all trades where PaineWebber is the market maker (principal trades) and all fixed income trades. However, PaineWebber does receive compensation for trades executed on a principal basis, including all fixed income trades. The next part of the fee calculation uses a rate of .000375 multiplied by the total market value of the fund as of each June 30th. This fee is capped on the next $100,000 of commissions. The language in the contract does not state whether the cap of $100,000 is on total commissions or agency commissions. The next fee calculation uses a rate of .003 multiplied by the total market value of the fund as of each June 30th. In the contract, the rate of .003 is probably missing a zero and should be .0003. If not, .003 multiplied by the total market value gives PaineWebber a commission amount of $4,209,564. The contract should be changed from .003 to .0003. In each step, the total market value used is the total market value of the fund, **including the market value of alternative investments for which PaineWebber does not provide full services.** There is no progressive table used in the calculation of fees. As an example, some investment managers use a sliding scale approach in quoting their investment management fee. The first $10 million of assets uses a rate of 50 basis points, the **next** $10 million of assets uses a rate of 45 basis points and so forth. In this example, the market value at each step is lowered to create a progressive scale. PaineWebber calculates their commission rates by using the same total market value of the fund.

More importantly, there is no cap on the consulting fee that Metro is obligated to pay PaineWebber. By reading the compensation section of PaineWebber's contract, it is extremely difficult to calculate their exact fee based on the language of the contract. There are numerous instances where the language is unclear and creates a situation where various compensation figures could be calculated. Under the existing contract, the Board could not answer the simple question: What should PaineWebber be paid under the stipulations in the contract?

Recommendation: **Present all consultant fees as fixed hard dollar fees stated in an unambiguous manner in the consultant contract.**

III. Monitoring and Reporting Function

A. Current Structure and Reporting

Overview of Industry Practices

The structure and reporting functions of pension plans vary dramatically depending upon the type of plan and the legal structure. For public plans, the structure of the plan is determined by local statues which define the number of Board members, the term of each member and who has the authority to appoint members of the Board.

Metro Structure

The Investment Board is currently comprised of four members: the three members from the Employee Benefit Board who are appointed by the Mayor, plus the Director of Finance. Each member serves a three-year term on the Board, and the terms are staggered over time. When a member's term has been completed, the Mayor has the discretion to re-appoint the member or replace the member with another candidate. There is no limitation on the amount of time a member can serve on the Board. The responsibilities of the Investment Board are outlined in Section 13.04 of the Metro code and also within the investment policy statement.

Reporting to the Investment Board and the Employee Benefits Board is the Executive Secretary. The Executive Secretary is responsible for both the investment and operations issues surrounding the pension plan. The investment policy statement outlines in broad terms the role of the Executive Secretary who "*shall arrange Board meetings, agendas, prepare materials and prepare minutes of the Board meetings*". In addition, the Executive Secretary shall provide other support as requested by the Board. In supporting the Investment Board, the Executive Secretary has one person on staff for investment issues.

The Investment Board consultant, PaineWebber, provides the Board with the evaluation of performance and is the primary source for data and information concerning the plan. Each quarter, PaineWebber provides the Board with a quarterly performance report, which PaineWebber explains at the Board's quarterly meeting. The master custodian sends all information to PaineWebber who then processes the information for their quarterly update reports. The Investment Board does not directly receive regularly scheduled information from any of the managers or the custodian. The Board meets once a month on average, including the quarterly meetings with PaineWebber.

The Division of Accounts is responsible for taking summarized investment information from the pension plan and booking entries into the General Ledger. They are also responsible for reconciling the detail of the custodial statements to summarized information provided by the master custodian.

The following are issues we found within the Current Structure and Reporting section, along with our recommendations.

Issue IIIA-1: The Investment Board is too reliant on the consultant for investment advice and analysis.

The Investment Board and PaineWebber hold primary responsibility for the management of the plan's investments, and the Board has used the Executive Secretary as an additional resource. The Executive Secretary, under the investment policy statement, is to perform investment functions as requested by the Board. In this capacity, the Executive Secretary has been the primary contact for PaineWebber and has been involved in performing various analytics for the Board. However, the position of Executive Secretary does not require candidates to be qualified to perform investment analysis, and the former Executive Secretary did not have the qualifications and experience to perform that function.

As a result, the Board has depended on the advice of PaineWebber almost exclusively for managing pension investments. In effect, the Board does not have any independent oversight over pension investments. As an example of the effect of not having adequate oversight over the consultant, the level of investment manager turnover has been excessive. Many of the PaineWebber selected managers have performed poorly over the years, which is the reason for so many terminations. Yet, the Board has never questioned PaineWebber's manager selection capabilities. The Board has simply terminated managers and rehired different managers based on PaineWebber's recommendations. The sale and purchase of securities both create transactions, which increase the commissions paid by the plan.

Recommendation: A Chief Investment Officer or similar position with appropriate qualifications should be assigned the responsibility to report to the Board and to manage all aspects of the investment function, including independently evaluating recommendations and analysis presented by the consultant.

Issue IIIA-2: Investment Board members are not required to sign a conflict of interest form.

Many employees of the government who hold key positions are required to fill out and sign a financial disclosure form and a conflict of interest statement. However, members of the Investment Board are not required to complete these forms. Board members, as fiduciaries to the plan with the responsibility for managing $1.3 billion of investments, may find themselves in situations where conflicts of interest may exist. Without the ability to review the financial interests of the Investment Board members and obtain their signed written representations that they do not have conflicts of interest with regard to plan investments, proper oversight is not in place.

Recommendation: Members of the Investment Board should be required to fill out and sign disclosure and conflict of interest forms every year.

Issue IIIA-3: The consultant had been given the authority to initiate investment transactions for the Metro account.

The assets for the Metro plan are safeguarded at a custodian bank that is responsible for ensuring that all transactions are accounted for on a daily basis. It is the custodian's responsibility to transfer funds from account to account within the fund as directed by individuals authorized to transfer funds by the Board. In most cases, the persons that can authorize the movement of funds work directly for the pension plan and may include certain members of the Board and key administrative personnel.

From 1994 through July of 1999, Metro used Northern Trust as the custodian. The Board approved the list of authorized personnel who could transfer funds, and the PaineWebber consultant was included on the list. Consultants are usually not authorized to transfer funds. An employee of Northern Trust stated that they were unaware of any other clients where the consultant was given the authority to transfer funds. In addition, there were several instances where managers would call PaineWebber to receive pre-approval on their trades, which is highly unusual. The Investment Board has the authority and the fiduciary responsibility to manage the assets of the plan. Since the improper transfer of assets can be a potential source of abuse, it is prudent to limit the number of people who can initiate transfers and to exclude the consultant from initiating transfers, given the consultant's conflict of interest surrounding such transactions, as discussed elsewhere in this report. Due to pressure from one Board member, the PaineWebber consultant was taken off of the authorized list by the Board; however, two weeks after the Board meeting, the consultant was improperly reinstated by a Benefit Board employee who was authorized to transfer funds.

Although the consultant had the authority to transfer assets of the plan from account to account, this report does not suggest that there were misappropriations in the movement of plan assets.

Recommendation: The consultant should never have the authority to transfer Metro funds or to pre-approve manager trades. Their sole involvement in transfers should be to advise the Board on transfers they are recommending. This will allow the Board greater control over the movement of funds and minimize the risk of the misuse of funds.

Issue IIIA-4: There were no procedures to ensure that investment balance totals reported on the general ledger, the State Street and Northern Trust reports, and the PaineWebber quarterly performance reports were in agreement.

The general ledger pension investment balances have not been updated since July, 1999. Additionally, there was a $9,054,669 unexplained difference at September 30, 1999 between the State Street reports, the Northern Trust reports and PaineWebber's quarterly performance reports. This difference was detected as part of the audit process, as there is no procedure in place to reconcile the quarterly performance reports. This difference appears to be an accounting error and does not suggest that there were any funds missing. The lack of general ledger controls can result in undetected errors in the custodian reports, and information reported to the Board

may not be accurate if the quarterly performance reports are not reconciled to the custodian records.

Recommendation: The pension investment general ledger balances and activity should be updated monthly based on the custodian reports. Drafts of quarterly performance reports should be reconciled to the custodian reports prior to the board meetings where investment performance is reviewed.

IV. Contracts and Agreements
A. Contract Language and Compliance

Overview of Industry Practices

The purpose of an investment management contract is to clearly state the objectives, services and fees that will be provided by the various parties (investment managers, consultants, custodians, etc.) who have been hired on behalf of the pension plan. In this regard, there should be clear communication between the plan and the various parties. One of the key components of the contract is the calculation of fees. The contract should explicitly state how fees are calculated and when those fees are payable. Fees are usually stated as a flat percentage or in a graduated scale format. The contract is signed by both of the parties involved, the plan and the provider of the services to the plan. As such, this document should be legally binding should any problems arise in the future. This document allows the plan to go back to the various parties if certain services were not provided or if fees were incorrectly calculated.

Metro's Investment Manager Contracts

As of September 30, 1999, Metro employed thirteen investment managers, with Nicholas Applegate managing two separate portfolios. One investment manager, Lazard Freres, has not signed their contract. Each of the other contracts currently in place was dated on June 7, 1999, with the exception of MBIA, which was hired by Metro after that date. It appears that all of the investment manager contracts were re-issued at the same time with terms of one year that will be automatically renewed for successive one-year terms unless prior notice is given. Either party can terminate the contracts by giving the respective party 30 days written notice.

One of the sections within the investment manager contract refers to investment guidelines that are detailed in the investment policy statement. It is the responsibility of the managers to follow these guidelines in the construction of their respective portfolios. If a violation occurs, the respective manager will be notified to determine the cause of the guideline violation. In some cases, the violation is temporary due to extenuating circumstances. As an example, a domestic equity manager may have recently received a large cash inflow due to asset allocation changes within the fund. The domestic stock market is currently declining and does not allow the manager to fully invest the cash very quickly. The manager will slowly enter the market at opportunistic times but may hold more cash than stated in the guidelines. If a guideline violation is serious, the violation will be reported to the Board by the Executive Secretary, and they will continue to monitor the portfolio to ascertain that the violation has been corrected.

The following are issues we found within the Contracts and Agreements process, along with our recommendations.

Issue IVA-1: The actions of the investment managers, in directing trades to PaineWebber and other brokers, do not match the language in their contracts or in PaineWebber's consulting contract.

Issue IVA-2: PaineWebber has not notified managers when their contracted compensation has been reached.

Within Section XI of the investment manager contracts (Consultant To Investment Board), *"the investment manager shall place all transactions through PaineWebber unless transactions can be placed through third parties at a lower rate than generated at PaineWebber"*. The section states that PaineWebber will execute trades at six cents per share as agreed upon by the Investment Board. In addition, the investment manager will allow PaineWebber to compete for all commissions generated by transactions but shall *"execute all transactions within the best interest of the fund"*.

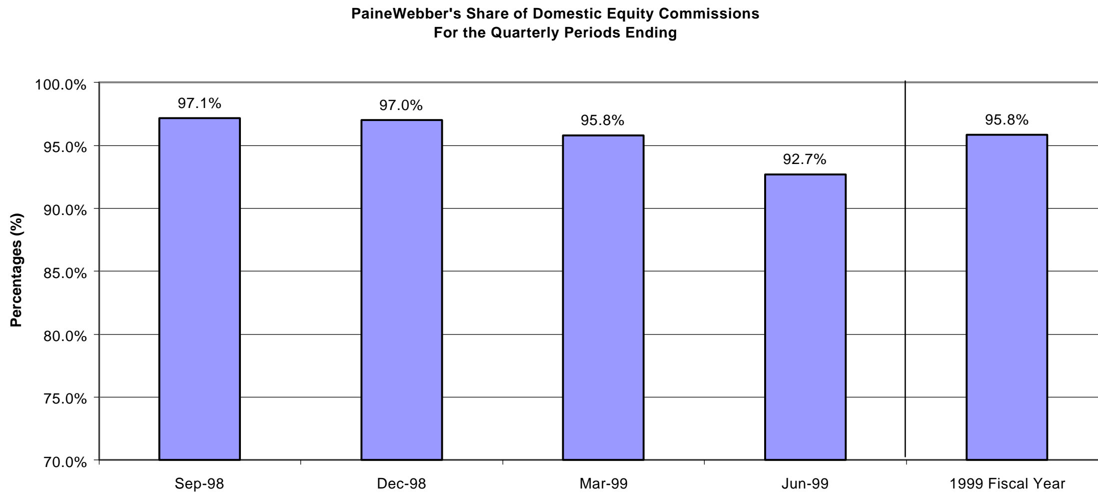
The consulting contract with PaineWebber has a section on compensation. In this section, the contract states that **only after** PaineWebber's contracted compensation has been earned will PaineWebber need to compete for transactions on a best execution basis. The exact language is as follows: "*After the cap is achieved, PaineWebber will be placed in a competitive situation on all listed transactions, and must match or beat the commission rates of the other security dealers.*" As stated in the previous section (Section IID- Role of the Consultant), the compensation as defined in the consultant contract is difficult to calculate, and different interpretations of the contract will lead to different fees.

From reviewing both the investment manager contracts and the consultant contract, it appears that all trades will be placed with PaineWebber at 6 cents per share until the contracted fee has been earned. The compensation is the minimum amount of commission dollars that are to be directed to PaineWebber in order for Metro to avoid paying PaineWebber's consulting fee by writing a check. Metro has always generated sufficient transactions to meet PaineWebber's compensation, because Metro has never had to cover the difference in fees with a hard dollar check. After the fee is reached, PaineWebber is supposed to be placed in a competitive situation, with all trades being transacted using best execution.

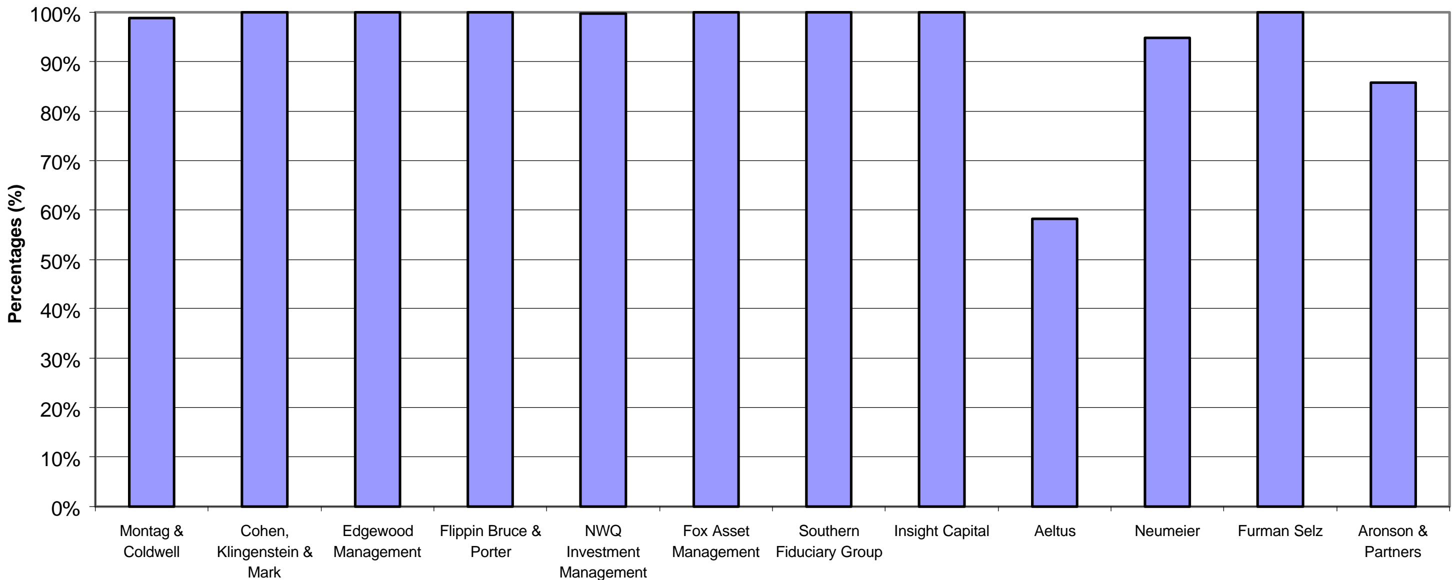
PaineWebber is able to calculate the contracted compensation, but the investment managers are not aware when the fee has been earned. It is the responsibility of PaineWebber to notify the managers that their compensation has been earned, and thereafter, PaineWebber must compete for all further transactions using best execution. However, PaineWebber representatives stated that the investment managers are obligated to seek best execution according to the language in their contracts and that there is no need for PaineWebber to notify managers when the fee has been earned.

In looking at transactions over the last year ending June 30, 1999, 95.8% of all domestic equity trades were executed through PaineWebber. In addition, according to the contracts, these trades would have been executed at six cents a share. It is highly likely that some of these trades could have been executed at other brokerage firms at a lower commission rate. For instance, several managers use the Instinet service where trades can be executed at 3.5 cents to 5.0 cents per share.

Yet, for most managers, the majority, if not all, of the trades were executed through PaineWebber. These trades might not be on a best execution basis. It is important to note that the commission rate is one factor, among many, that determines best execution. Equally important is the ability of the broker or service to execute the trade in a timely manner, and the ability to provide liquidity as needed while also receiving the best price possible on the purchase or sale of the security. There are many other brokers, besides PaineWebber, who have the ability to provide best execution.



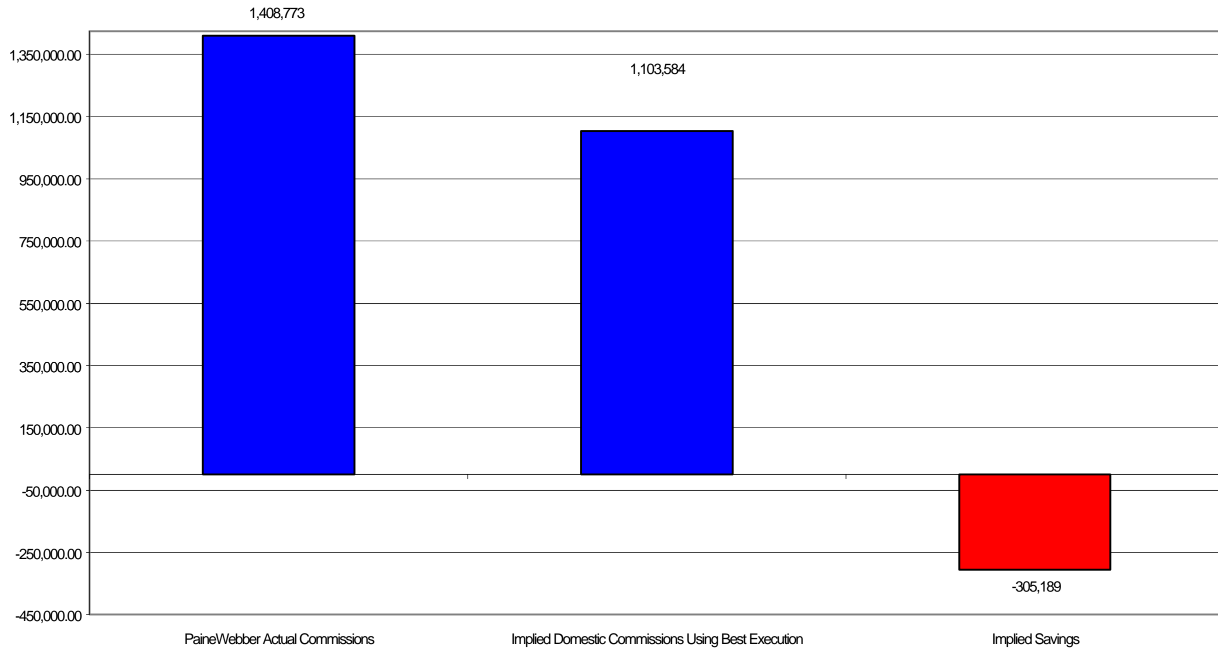
The majority of domestic equity managers transacted nearly all of their trades through PaineWebber. In most cases, the manager traded exclusively through PaineWebber. For the year ending June 30, 1999, only one manager traded less than 85% of all their trades through PaineWebber.



To gain a perspective on the costs associated with executing at predominately six cents per share, the following graph displays an implied savings to the fund had all investment managers traded using best execution. PaineWebber's commission revenue was $1.4 million for the year ending June 30, 1999, excluding revenue gained through fixed income trading.

The average actual commission rate for domestic equity transactions, excluding PaineWebber, was 3.8 cents per share. But in order to calculate a more conservative estimate of the savings, 4.7 cents per share was used, the average exchange traded commission rate charged by brokers according to the Plexus Group. Using 4.7 cents per share, commissions would have been $1,103,584 and Metro would have saved $305,189 in commissions during the year if all domestic equity transactions had been traded using best execution. Note that PaineWebber would have still earned their contracted fee of $788,747 had trades been made using best execution.

Commission Revenue Analysis
For the Year Ending June 30, 1999



Recommendation: Eliminate the soft dollar commission arrangement. This arrangement causes potential conflicts of interest and increases the actual cost of trade executions. Instruct the managers to seek best price and execution for each trade.

Issue IVA-3: The category of the investment manager's mandates (ex. Large Cap Growth) as defined in each investment manager contract does not always match the categories in the Statement of Objectives (Section VII).

Within each contract, there is a specific paragraph that outlines the objectives of the manager. In this paragraph, each manager is designated to manage a specific style mandate such as "Large Cap Growth". The paragraph states "*the Investment Manager shall manage the account in accordance with the "Statement of Investment Objectives" and acknowledges that all investments by the Investment Manager will be restricted to those investment areas specifically designated to the type manager designated above and as further set out under Section VII of the "Statement of Objectives""*.

The mandate in the investment manager contract does not always exactly match the mandate as stated in the guideline section of the Statement of Objectives. For example, Montag & Caldwell is defined as a Large Cap Growth manager in their contract. Under the contract provisions, they should follow the guidelines of a Large Cap Growth manager in Section VII of the Statement of Objectives. However, there is no mandate called Large Cap Growth. The only heading in the investment policy that applies to Montag & Caldwell is under Core Equity – Active. There are similar instances where a manager's mandate in the contract does not match the wording in the investment policy statement.

Although there is a slight mismatch between the wording of the contract and the investment policy statement, the correct guidelines should be apparent to each manager.

One case that is not apparent is with the investment manager MBIA Capital. MBIA was originally hired as a cash manager. Under the headings in the policy, they fall under the Fixed Income-Short and Intermediate Duration heading. However, some of the guidelines under this heading are more aggressive than is necessary for a cash manager mandate: the maximum maturity could be as high as ten years, and a maximum of 20% of the portfolio could be rated BBB. If MBIA used these guidelines, they could conceivably take substantially more risk than is warranted.

Recommendation: Change the wording in the contracts to clearly state which guideline category a manager should follow. For instance, Montag & Caldwell can still be classified as a Large Cap Growth manager but would use the Core Equity-Active guidelines. The classification of MBIA should be clearly defined. Metro should establish another guideline section for Cash Management in the investment policy statement. In addition, the language in the contract for MBIA should state that MBIA will follow the guidelines for a Cash Management mandate. Investment manager fees for MBIA as a cash manager should be lower.

Issue IVA-4: The section on the "Consultant to the Investment Board" in the investment manager contracts clearly states that the consultant is the Phillips Group of PaineWebber.

Although this can be considered a minor issue to the overall scope of the project, each investment manager contract explicitly states that the consultant is PaineWebber. If the Investment Board ever decided to switch to a new consultant, this section within each contract would need to be modified, creating an unnecessary administrative burden.

Recommendation: Replace the name of the consultant in future investment manager contracts with a generalized reference to the consultant.

Issue IVA-5: The address in the section on the "Custodial Bank" of the investment manager contract is incorrect.

In the section on the relationship between the investment manager and the custodian, the first paragraph lists the name of the custodian and the contact for all correspondence as Northern Trust in all investment manager contracts except the MBIA Capital contract. State Street has recently replaced Northern Trust as the custodian. Further, this section does state that the Investment Board will notify the managers of a change in the custodian in writing. Explicit use of the custodian's name and contact could potentially cause problems in communication.

Recommendation: Remove the name of the custodian and the contact from investment manager contracts and have a generic reference to the custodian. In addition, the Investment Board should notify managers in the event of a custodian or custodian contact change.

Issue IVA-6: Some specific manager fees are ambiguous.

Edgewood's management fee was originally typed in the contract as 58 basis points. It was changed in handwriting to 85 basis points and initialed by "DD". Most probably, the individual "DD" is employed by Edgewood and noticed the discrepancy in the fee. However, the identity of the individual is not clear, and the initials are not dated in the contract. It is possible that the fee for Edgewood could have been changed after the Board signed and approved the contract. In this case, the Board might be unaware of the change in fees and might be overpaying Edgewood.

Recommendation: Clarify the investment manager fee, and identify the individual who initialed the fee change. Confirm with the Board that the fee of 85 basis points is correct.

ARM Capital has two stated management fees in the contract. Under Point B, the annual fee is 90 basis points. Under Point C, fees are based on a sliding scale. Based on the payment of fees to the manager, Metro is paying ARM Capital using the sliding scale fee arrangement. This happens to be the correct fee arrangement between Metro and ARM Capital, and the other fee is not necessary.

Recommendation: **Remove Point B showing an annual fee of 90 basis points, and have the contracts resigned by both parties, as amended.**

In the Nicholas Applegate investment contract for International Equity, there is a paragraph on the discounting of fees. If Nicholas Applegate manages aggregate assets greater than $75 million for Metro, fees for the International account will be the same as the structure for its Small to Mid Cap Growth portfolio. Nicholas Applegate managed a Small to Mid Cap Growth portfolio for the Metro account from December of 1990 through June of 1996 before being terminated. Presently, fees for the International account are based on the fees from the International contract, not the Small to Mid Cap Growth contract. This calculation is correct since the Small to Mid Cap Growth portfolio no longer exists. However, Nicholas Applegate also manages an Emerging Markets portfolio valued at approximately $60 million. If a discount were to be applied to the account, the potential annual savings in fees for the International account would be approximately $60,000 dollars.

Recommendation: **The aggregate total of assets managed by Nicholas Applegate is approximately $223 million dollars. Given the original discount language, it would be appropriate for Metro to ask for a similar discount due to the large amount of assets managed by Nicholas Applegate.**

IV. Contracts and Agreements
B. Fee Arrangements

Metro Fee Arrangement Process

Metro pays investment manager fees under a "most favored nation clause" as discussed in issue IIC-3 under the Investment Manager Selection section. The following chart displays the manager fee arrangements, and their fees in dollars and in basis points.

Investment Manager Fees
By Asset Class
One Year Ending September 30, 1999

	Manager Name	Assets Under Management	Type of Fee Arrangement	Fee (In Basis Points)	Fee (In Dollars)	Average Fee (In Basis Points)
Large Cap Growth						
	Montag & Caldwell	77,064,080	Scale	44.63	343,937	
	Cohen, Klingstein	93,144,951	Flat	50.00	465,725	
	Edgewood	75,841,917	Flat	85.00	644,656	
	TOTAL	246,050,948			1,454,318	
Large Cap Value						
	Flippin Bruce	190,721,451	Scale	50.26	958,566	
	NWQ	50,987,653	Scale	72.26	368,437	
	TOTAL	241,709,104			1,327,003	
Small Cap Growth						
	Insight	117,559,673	Flat	75.00	881,698	
	Aeltus	26,075,538	Scale	81.92	213,611	
	TOTAL	143,635,211			1,095,308	
Small Cap Value						
	Aronson	43,909,998	Flat	90.00	395,190	
	TOTAL	43,909,998			395,190	
	TOTAL DOMESTIC	675,305,261			4,271,819	63.26
International Equity						
	Nicholas Applegate	163,143,887	Scale	63.33	1,033,190	
	Lazard	68,848,998	Flat	75.00	516,367	
	TOTAL	231,992,885			1,549,558	66.79
Emerging Markets Equity						
	Nicholas Applegate	60,413,698	Flat	125.00	755,171	
	TOTAL	60,413,698			755,171	125.00
U.S. Fixed Income						
	ARM	157,278,406	Scale	28.58	449,502	
	Companion Capital	119,754,249	Flat	30.00	359,263	
	TOTAL	277,032,655			808,764	29.19
	GRAND TOTAL	1,244,744,499			7,385,313	

IV. Contracts and Agreements
C. Fee Comparison – Industry Standards

Comparison of fees to industry standards

Based upon data from other public pension plans, it appears that Metro's fee structure is higher than other similar plans, especially within the Domestic Equity and Emerging Markets asset classes. Metro may be hiring managers that have a higher fee structure than other managers in the industry.

Public Fund Investment Manager Fees
Mean Fees by Asset Class
Data Reported: As of 1998

Asset Class	Metro – 1999 FY (In Basis Points)	Public Funds (In Basis Points)	Difference in Fees
Domestic Equity	63.2	39.6	23.6
International Equity	66.8	55.4	11.4
Emerging Markets	125.0	72.8	52.2
Domestic Fixed Income	29.2	27.3	1.9

Source: Greenwich Associates, 1998 Investment Consultants – Market Dynamics Report
Note: The data reported by public funds includes passively managed assets

If Metro's investment strategies and manager fees were in line with the average public fund, **Metro could potentially save approximately $2.2 million dollars annually** in fees. This savings could result from more aggressive fee negotiations and from passively managing some large cap equity assets similar to other public funds.

Issue IVC-1: The use of some flat fee arrangements in the plan may cause Metro to pay higher fees than otherwise necessary.

Further impacting fees is the fact that Metro pays some investment managers through a flat percentage fee arrangement. Fee arrangements are manager specific; some offer a flat fee arrangement while others offer the graduated scale arrangement. Depending upon the negotiation process, it may be preferable to pay a manager on a graduated scale arrangement, where the fees paid to the manager decrease in basis points as the market value of the account increases.

As an example, assume two investment managers are managing the same mandate and receive $100 million dollars apiece. Manager A is charging a flat fee of 50 basis points. Manager B is charging fees based on the following graduated scale: the first $100 million of assets are charged 50 basis points, the next $50 million in assets are charged 40 basis points and assets over $150 million are charge 35 basis points. In year two, if the market value of the account rises to $150 million for each manager the fees would be as follows:

		Annual Fee	Annual Fee
		Year 1	Year 2
Manager A	Flat Fee	$500,000	$750,000
Manager B	Graduated Scale	$500,000	$700,000
Difference		$0	$50,000

Investment manager fees would be $50,000 less under the graduated fee scale arrangement. As assets continue to grow, the gap between the two managers' fees would continue to grow.

Recommendation: **Metro should re-evaluate fee arrangements with investment managers, specifically where managers charge a flat fee. In addition, Metro should consider passive investing, consolidating mandates by asset class and aggressively negotiating to reduce investment manager fees.**

V. Performance Reporting
A. Adequacy of Performance Reporting

Overview of Industry Standards

After a pension plan has set its asset allocation policy and selected its investment managers, the last step is the evaluation of performance. The plan will focus not only on the total fund but also on an analysis of the underlying asset classes and managers that comprise the total plan. One of the first steps is a comparison of returns, both at the total fund level and manager level, versus the appropriate benchmark. In many cases, the evaluation of performance is compared versus multiple benchmarks. This is especially relevant when a plan chooses style specific managers for its plan rather than adopting a core approach. For instance, the primary benchmark for a large cap growth manager is probably the S&P 500. In addition, the manager could be compared versus a growth index such as the S&P/BARRA large cap growth index. Comparing performance versus benchmarks is one method of analyzing performance. It is also important to compare performance versus a universe of peers. If an investment manager outperforms their benchmark but fails to outperform the majority of similarly managed funds, then there could be a performance issue with the manager.

Although return is a key component in analyzing fund performance, equally important is the measurement of risk. It is critical for a plan to understand how much risk the plan is taking and the type of risk. Is the plan being properly compensated for the amount of risk taken? The term "properly compensated" refers to the return of the plan. In general terms, a plan that takes more risk than another similarly structured plan should earn a higher return, all other items being equal. In its basic form, risk is defined as standard deviation. Usually the risk of the plan is displayed in a risk-return diagram shown over various time periods.

The type of the risk within the plan is dependent on the type of managers selected for the plan and the manager's stock selection process. For instance, the plan may have a large concentration of growth managers. If each of these managers holds a large quantity of technology stocks, the plan would then have a large overall concentration in the technology sector. The risk to the plan is a downturn in the technology sector, which would have an adverse impact on the plan's overall return.

In order to help a Board understand the dynamics of their plan, performance reports will usually chart the portfolio's asset allocation structure over time. In addition, a comparison will be shown between the plan and the average of other pension plans within a similar universe. The plan will be able to gauge how their asset allocation decisions have changed over time and how their structure differs from similarly managed plans.

Metro's performance report

The Investment Board receives four quarterly performance reports from their consultant, PaineWebber. The reports include performance analytics on the total fund and for each manager employed by Metro. Performance is compared against a series of benchmarks in addition to a peer group universe. On a total fund level, the report includes growth of assets charts and a one

page summary of the plan's current asset allocation structure. The report also displays each manager's historical return and market value on a monthly basis and an attribution analysis of returns. Once a year, the report is expanded to include detailed analytics on each manager, such as portfolio holdings and portfolio characteristics.

In creating the performance reports, PaineWebber has included information that has been requested by the Board over the years instead of taking a proactive approach and recommending what types of analysis the Board should be considering to fulfill their fiduciary responsibilities. Unless the Board has requested that a specific type of analysis be included in the performance reports, the reports have remained essentially the same without any enhanced analytics.

The following are issues we found within the Performance Reporting section, along with our recommendations.

Issue VA-1: The quarterly performance report does not include any analysis of risk.

The quarterly performance reports do not include any mention of risk at the total fund, asset class, or manager level. For each asset class, including the total fund, the report displays a "floating bar" performance chart which compares performance relative to a benchmark and a universe. The report does not include a standard risk-return scatter diagram to display each manager's risk profile. A risk-return scatter diagram would help the Board understand the level of risk each manager is taking in order to achieve performance returns. Is the manager a high return, high risk type of manager? Or does the manager take less risk but is still able to earn comparably high returns? The inclusion of scatter diagrams over multiple times frames would allow the Board to gain insight into manager risk profiles over time. Equally important, this would allow the Board to compare managers within the same asset class.

Recommendation: Include risk-return analysis for all managers.

Issue VA-2: The quarterly performance report does not display Metro's historical asset allocation over time and does not compare the plan's current asset allocation to other similarly managed plans.

The performance report includes a page detailing the plan's asset class and manager allocation weights. However, the report does not compare the current asset allocation to the plan's historical allocation or to allocation weights of similarly managed plans, making it difficult for the Investment Board to maintain an awareness of the changes to its asset allocation policy and equity exposure over time. In addition, the Board should be aware of the allocation strategies of similarly managed plans, specifically public funds. Is the Metro plan more aggressive than other plans?

Recommendation: Include a comparison of Metro's current asset allocation to previous allocation policies and to other similarly managed plans. These

comparisons should be included in the quarterly performance reports to the Board.

Issue VA-3: Metro's total fund performance does not include real estate, venture capital or alternative asset classes.

The total fund performance, as reported in the quarterly performance reports, does not include real estate, venture capital or alternative asset classes. Since these asset classes are excluded from the total fund calculation, the fund's overall performance is unknown. As of September 30, 1999, Metro had invested 3.8% of its assets in these alternative asset classes. Although it can be extremely difficult to calculate a correct rate of return for these asset classes, some indication of the returns should be presented in order for the Investment Board members to monitor the plan's performance in accordance with their fiduciary responsibilities.

Recommendation: The total fund return should include all investments within the plan.

Issue VA-4: PaineWebber's quarterly performance reports only display five years of performance data.

Returns for the pension fund can be traced back to December of 1984, but the quarterly reports only include performance going back five years. This does not allow the Board to fully analyze the fund's performance over longer time periods. In addition, PaineWebber has been the sole consultant to the Metro plan for approximately nine years, and the inclusion of longer time periods in the report would allow the Board to more fully evaluate PaineWebber's asset allocation and manager selection recommendations.

Recommendation: Expand the performance comparisons to include longer time periods.

Issue VA-5: The calculation of the dynamic index, as shown in PaineWebber's performance reports, is incorrect.

For the quarter ending September 1998, PaineWebber calculated a return of –9.98% for the dynamic index. However, based upon the methodology employed by PaineWebber that was explained in a memo to the Board, the actual return for the index should have been –7.76%. The revised value was verified by PaineWebber in a memo to Metro after they were asked for the detail behind the original calculation. The incorrect value not only affected that particular quarter but also affects the annualized numbers for the index going forward. The following table illustrates the affect of changing the index value from –9.98% to –7.76%.

Net Dynamic Index Revision
As of September 30, 1999

	One Year	Two Years	Three Years	Five Years
Reported Dynamic Index	18.84	7.32	12.31	12.96
Correct Dynamic Index	18.84	8.64	13.33	13.51
Difference	0.00	1.32	1.02	0.55

Not only did the correction to the index affect the annualized returns of the index, it also affected the comparison to Metro performance results. For the two and three year periods ending September 30, 1999, Metro underperformed the dynamic index instead of outperforming the index. For five years, Metro still outperformed the index, but the margin of outperformance is much less.

Metro Performance versus Dynamic Index
As of September 30, 1999

	One Year	Two Years	Three Years	Five Years
Reported Dynamic Index	18.84	7.32	12.31	12.96
Metro Returns	24.72	8.37	13.11	14.18
Difference	5.88	1.05	0.80	1.22
Correct Dynamic Index	18.84	8.64	13.33	13.51
Metro Returns	24.72	8.37	13.11	14.18
Difference	5.88	-0.27	-0.22	0.67

Recommendation: Correct the quarterly return in the performance reports.

V. Performance Report
B. Assessment of Performance

The following charts illustrate the performance of Metro's domestic equity and international equity segments versus their appropriate benchmarks. To facilitate this type of analysis while also being able to compare returns to other public plans, the quarterly performance reports should include performance results at both total domestic equity and total international equity segments. Presently, the reports calculate returns separately for large and small cap equity but do not consolidate the results. Similarly, the reports calculate returns for international equity and emerging markets separately but do not consolidate returns.

On a percentile rank basis for the five years ending September 30, 1999**,** the portfolio's domestic equity return ranked in the 60th percentile, and its risk ranked in the 72nd percentile, with 99 being the worst percentile. The portfolio's international equity return ranked in the 25th percentile, and its risk ranked in the 79th percentile.

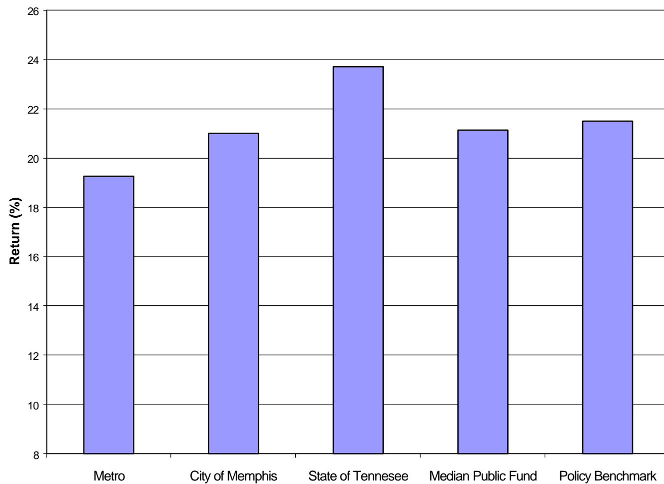
For the five years ending December 31, 1999, the domestic equity portfolio's return ranked in the 58th percentile and its risk ranked in the 71st percentile. The international equity portfolio's return ranked in the 14th percentile while its risk ranked in the 85th percentile. The fund's overall five year return of 18.47% was higher than the 17.35% static index and the 16.44% median public fund return. On a total fund basis over the last five years, the portfolio ranked in the 17th percentile of the total public fund universe**, but ranked in the 99th percentile in terms of risk.**

In analyzing data from both the September and December quarters, the domestic equity portfolio had a return less than other similar funds while taking more risk. The international equity portfolio had a return greater than other similar funds while also taking additional risk. In comparing the two portfolios, it is possible that the payment of soft dollar commissions to PaineWebber contributed to the underperformance of the domestic equity portfolio relative to other similar plans.

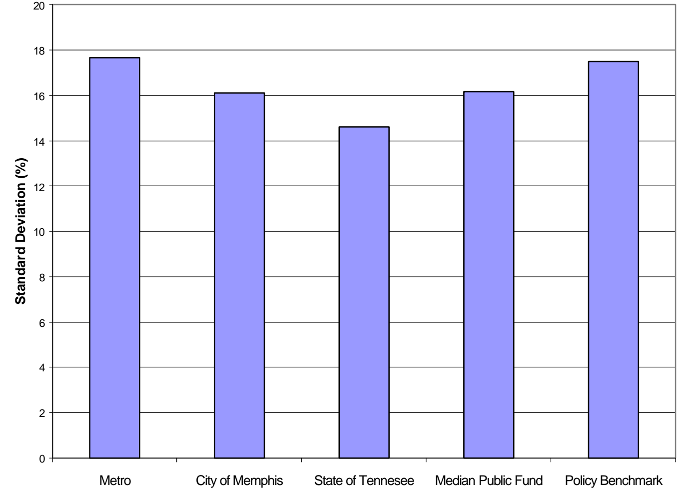
The following series of graphs displays Metro's return and risk for the five years ending September 30, 1999 versus its peers. The first series of graphs compares Metro's return and risk for its total domestic equity segment. Note that Metro's returns are the lowest and Metro's risk is the highest as compared to the City of Memphis, the State of Tennessee, the median from the public fund database, and the policy benchmark.

Total Domestic Equity

Return Comparison



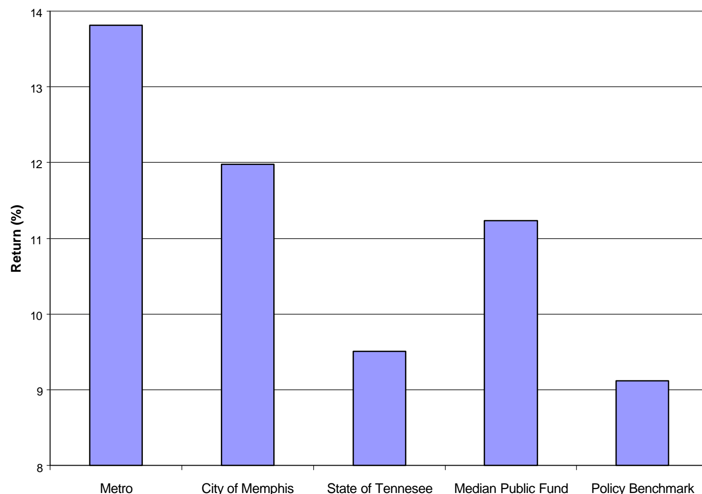
Risk Comparison



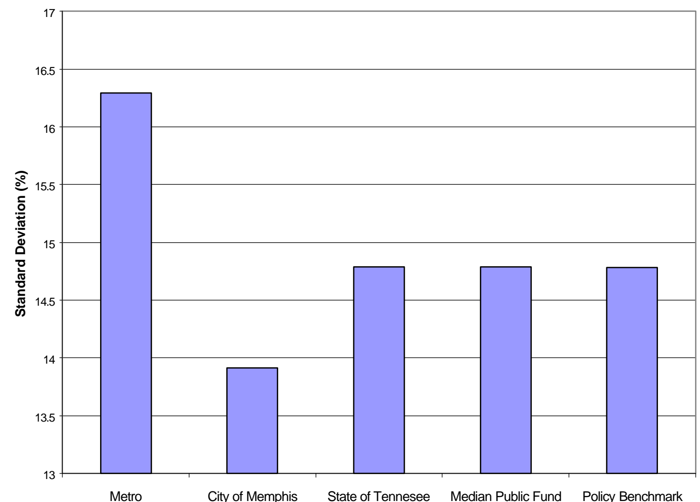
The next series of graphs compares Metro's return and risk for its total international equity segment.

Total International Equity

Return Comparison



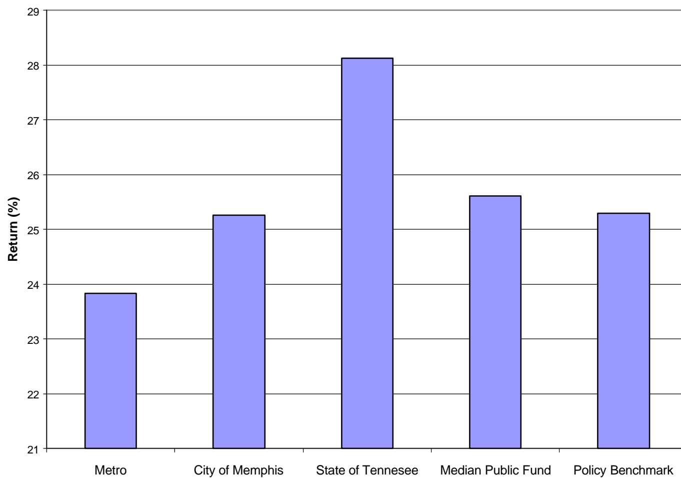
Risk Comparison



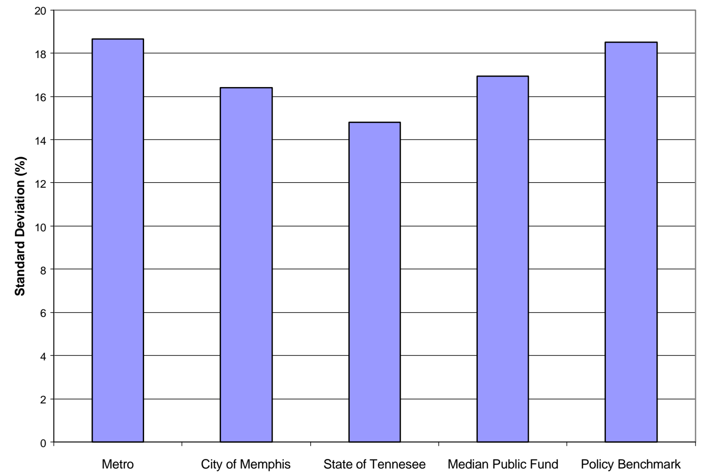
The following series of graphs display Metro's return and risk for the five years ending December 31, 1999 versus its peers. The first series of graphs compares Metro's return and risk for its total domestic equity segment. Note that, as for the previous quarter, Metro's returns are the lowest and Metro's risk is the highest as compared to the City of Memphis, the State of Tennessee, the median from the public fund database, and the policy benchmark.

Total Domestic Equity

Return Comparison



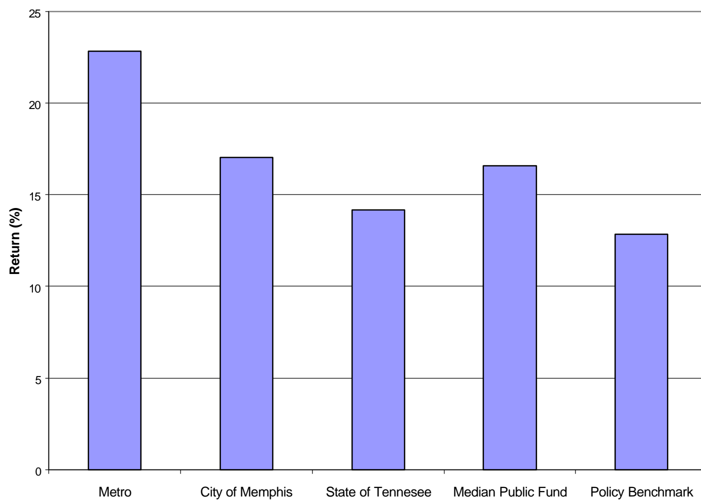
Risk Comparison



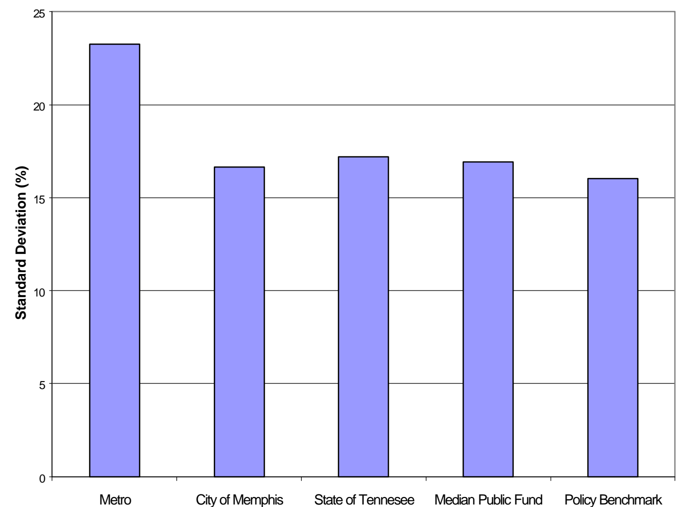
The next series of graphs compares Metro's return and risk for its total international equity segment.

Total International Equity

Return Comparison



Risk Comparison



VI. Real Estate/Venture Capital

Summary of Industry Standards

The use of real estate, venture capital and alternative investments is predominately found in large pension plans that have both a sufficient asset base and a specialized staff or consultant to analyze and monitor these complicated asset classes. Usually, real estate, venture capital and alternative investments are a small portion of a plan's overall asset allocation strategy, due to their inherent risk. In order for these asset classes to generate a material impact on a plan's overall rate of return, a plan has to have a sufficient amount of assets to invest.

For a plan to properly invest in these asset classes, a plan's decision makers must have a level of sophistication that would allow them to thoroughly analyze each investment and to monitor ongoing developments. As stated in previous sections of this report, real estate, venture capital and alternative investments require a higher degree of analysis than any other asset class. These investments can be very complex and illiquid. Just as important as the initial investment decision is the ongoing monitoring of the investments. Once a plan has approved its initial investment, the plan must be able to calculate the rate of return on an ongoing basis to compare the performance to objectives and to any pre-determined benchmarks. In many cases it is difficult to calculate a rate of return due to the investments' objectives and lack of liquidity. Yet, there needs to be some accountability for each investment. The plan's decision makers must know how each investment is doing and whether it meets objectives.

Metro's Real Estate Investments

The Investment Board has made several investments over the years in real estate, predominately by purchasing individual properties rather than purchasing commingled vehicles. The properties were purchased by the Board in the late 1980's and in 1990, and included office buildings and undeveloped land. Of the six real estate investments that Metro purchased, one individual property and one real estate fund are still held.

In evaluating the purchase of real estate investments, the Board did not use an independent third party consultant. In order to help the Board manage their investments in real estate properties, the Board hired an outside law firm, O'Hare, Sherrard, and Roe in 1990 to address legal issues surrounding the sale and restructuring of various real estate investments. The outside attorney's services have expanded to include limited financial analysis on Metro's real estate holdings.

Metro's Venture Capital Investments

Over the years, the Board has also invested in a number of venture capital deals by investing with firms that are based in the Nashville area. Similar to real estate, the Board does not use an independent third party consultant to advise them in the evaluation of venture capital deals. Over the last couple of years, the Board has continued to invest in venture capital based upon their personal knowledge of and relationships with venture capital managers, making decisions based on the venture capital managers' reputations for being able to make money.

The following table highlights Metro's venture capital/alternative investments and the party who referred the initial business to Metro. This information was obtained through telephone conversations with each of the investment managers.

	Placement Fee Amount	**Party who received placement fee**	**Party who referred the business**
Lawrence, Tyrrell, Ortale & Smith	None	None	Keith Phillips
Massey Burch	None	None	Unknown
FCA II	None	None	Keith Phillips
Richland Ventures	None	None	Keith Phillips
Southern Venture	Did not answer	Did not answer	Did not answer
Southvest Fund III	$52,500	Wiley Brothers	Unknown
Southvest IV	$62,500	Wiley Brothers	Unknown
Southvest LBO	$38,750	Wiley Brothers	Unknown
DC Investment	None	None	Keith Phillips
Sewanee Partners II	None	None	Keith Phillips
Brazos Fund	Unknown	Unknown	Unknown
Tennesee Valley	Unknown	Wiley Brothers	Dan Van Zant

The following table displays the internal rate of return, supplied by the various managers, for each fund as of December 31, 1999. Unlike traditional investments such as equities, venture investment returns are much more difficult to calculate due to their lack of liquidity and the absence of pricing information for the underlying investments.

Venture Capital Fund	**Internal Rate of Return**	**Amount Invested By Metro**
Lawrence, Tyrrell, Ortale & Smith	21.3%	$2,850,000
Massey Burch	5.6%	$2,000,000
FCA II	149.0%	$7,500,000
Southern Venture	-2.4%	$4,000,000
Southvest Fund III	24.2%	$2,500,000
Southvest IV	N/A	$2,000,000
Southvest LBO	16.7%	$1,500,000
Richland Ventures	21.1%	$4,350,000
Richland Ventures II	17.6%	$5,400,000
Richland Ventures III	-8.6%	$1,000,000
DC Investment	-6.0%	$7,500,000
Sewanee Partners II	42.1%	$10,000,000
Tennesee Valley	N/A	$1,750,000

For funds that are listed as N/A, the fund is in the early stages of investing capital, and the calculation of an internal rate of return is not available at this point in time. For the Massey Burch fund, an estimated value was used since the actual commitment to the fund was not available from the Metro records.

Using a weighted average methodology to estimate returns, Metro's venture capital investments' return is approximately 36%. However, if the FCA II fund is excluded, the return on venture capital is only 14%.

The following are issues we found within the Real Estate, Venture Capital section, along with our recommendations.

Issue VIA-1: The last bullet labeled number 9 under Section II B, Consultants(s) in the investment policy statement, assumes that the Investment Board has the necessary experience to make investment decisions on real estate, venture capital and other alternative investments.

In this last bullet, the consultant can "*provide opinions, but not necessarily recommendations or supporting data, on real estate, venture capital, and other alternative investments for consideration by the Board, as requested by the Board"*. The Board is taking primary responsibility for making investment decisions. The consultant is used as a secondary source for providing opinions but not investment recommendations. Although the Board has the authority to hire multiple consultants, this last bullet seems to rule out relying on a consultant to provide advice on real estate, venture capital and alternative investments. The Board members generally lack the necessary expertise to make investment decisions. It is highly unusual for a Board to handle these complicated investment decisions by itself. More than any other asset class, real estate, venture capital and alternative investments require a high degree of investment expertise to analyze potential investments. Beyond the original purchase decision, a great deal of time is spent by organizations monitoring ongoing developments within these asset classes. Information and pricing is not readily available, which greatly complicates analyzing positions in the portfolio. Most organizations will have an investment analyst, usually a senior analyst, making recommendations and closely monitoring the plan's alternative investments.

In addition, without a true objective third party advising the Board, the Board opens itself to criticism of potential conflicts of interest. Many of Metro's alternative investments were from managers, mostly located in Nashville, who knew members of the Board. The managers contacted acquaintances on the Board to market their property or funds. Usually the manager was granted an opportunity to present their investment opportunity before the full Investment Board. In many cases, the Board - without any due diligence process - then hired the manager.

Recommendation: There are four options available:

1. **Have the general consultant handle all of the asset classes in the plan including real estate, venture capital and alternative investments.**
2. **Hire a specialist consultant just to handle real estate, venture capital and alternatives.**
3. **Hire a senior investment analyst whose sole responsibility is to recommend and monitor real estate, venture capital and alternatives.**
4. **Remove real estate, venture capital and alternatives from the plan over time, subject to liquidity constraints on the investments.**

If properly implemented, any of these recommendations would serve to ensure the Board is acting prudently in exercising their fiduciary responsibilities.

Issue VIA-2: The statement on the location of real estate purchases (Section V, Bullet 2), creates a potential conflict of interest.

Under the guidelines for the alternative asset classes, the Board will "*seek diversification by geographic location, type of property or industry, general partner, and technological risk*". In addition, there is a section devoted to selecting individual investment properties. Real estate property may be purchased anywhere in the continental United States. However, "*preference is given to Tennessee projects of equal or higher investment merit*". This last statement appears to contradict previous statements concerning diversification. Although properties could be partially diversified within the State of Tennessee, the Board's strong preference to purchase real estate

locally does not diversify the real estate portfolio. In fact, nearly all of the purchases of real estate properties owned by the Board are located in Nashville.

In addition and more problematic, purchasing property locally or within the state can lead to potential conflicts of interest. The interconnection between many groups, whether political figures, local businesspeople or other state residents, may cause the Board to be less than completely objective. The pension plan for the State of Tennessee does not allow real estate investments within the state in order to avoid any conflicts of interest. Under the guidelines for selecting individual properties, Point #3 states that the Board shall obtain an opinion from a qualified consultant prior to making a commitment to any proposed real estate investment. Currently, the Board does not use a real estate consultant. The Board currently uses an outside attorney to help them with their real estate purchases. The Board entered into real estate investments when people who had an acquaintance with one of the Board members brought the deals to the Board's attention. The Board would then invite the people responsible for the deal to make a presentation before the full Board at one of their meetings. The Board would then decide if they should pursue the deal offered to them, followed by a formal Board vote on the issue without appropriate analysis.

Recommendation:

1. **Include a statement in the investment policy which restricts the Metro fund from purchasing properties located in Davidson and surrounding counties to avoid any potential conflicts of interest.**
2. **Include a statement in the investment policy that outlines the process involved in purchasing real estate. All recommendations concerning the purchase and the sale of real estate should be through an independent third party. This independent third party organization could be the general consultant or a consultant whose expertise is real estate.**
3. **Conduct a study on the merits of using real estate within the portfolio.**

Issue VIA-3: The Investment Board has purchased and/or considered the purchase of real estate, venture capital and alternative investments without sufficient due diligence.

As discussed in previous sections of this report, evaluating and monitoring real estate investments is complex and requires sufficient expertise and analysis before a sound investment decision can be made. The Investment Board does not use an independent third party to advise them and instead reviews opportunities arising from each member's personal expertise and contacts within the community. Certain Board members, through their business experience, have developed knowledge that they feel is sufficient to analyze real estate investments. One member of the Board initiated a discussion to determine if real estate investments were prudent, and, if so, whether purchasing local real estate was prudent, given the potential conflicts of interest. On December 14, 1998, the Board voted to pursue investments in real estate that were locally based in order to leverage the Board's knowledge of local business conditions. The only third party advice the Board has relied upon has been the limited financial analysis done by the Board's outside attorney.

This outside attorney has brought to the Board's attention their need for an asset manager to manage these investments and to advise the Board. However, the Board has ignored this advice and has continued to rely on their own expertise in analyzing real estate investments.

There are several examples where the Board has purchased property without adequately examining the financial ramifications of their decisions.

One example is the Board's decisions surrounding the Financial Plaza building in which the Board became a limited partner in the late 1980's. According to the July 22, 1991 minutes, the Board considered buying out the general partner and becoming both the general and limited partner. The building was essentially a one tenant building, with FISI of Madison leasing approximately 75% of the space. During the meeting, a question came up as to whether the Board could own 100% of the building. It was determined by the Board's outside law firm that the first mortgage on the property (50%) met the state statue and that owning the remaining 50% of the building needed to only meet the Prudent Investor Rule. The Board approved the measure to buy out the general partner and own 100% of the building. The minutes indicated no concern about owning 100% of a building that had only one major tenant. Based on the available data which excludes cash flow information, the Board purchased the property for $2,048,625 in 1988 and received $2,746,994 in net proceeds in 1997.
In another real estate deal, the Board purchased the Recorp Percy Priest property in 1987 to develop raw land into a planned unit development. In 1991, the general partner, Recorp Inc., encountered financial difficulties, and the Board and Morgan Keegan, who had marketed the limited partnership, purchased the first mortgage from the general partner. Interestingly, the owner of Recorp Inc. had personally guaranteed the limited partners a 10% return on their investment. However, due to problems with the land, construction on the property was not begun. The Board recently sold the property, but only received 41 to 46 cents on the dollar. In purchasing the property with pension assets, the Board took for granted a **personal guarantee** from the owner of Recorp. In addition, the purchase of raw land for development is a risky venture in and of itself, and using public pension assets for such a venture is inappropriate. The fact that the property was locally based only seems to have created the issues resulting in this unprofitable investment, which contradicts the Board's position about investing in local real estate.

As a third example, the recent attempt by the Board to purchase the Parkway Towers property illustrates the Board's continuing preference to purchase local property without sufficient analysis and without regard for potential conflicts of interest. The Parkway Towers property was brought to the Board's attention by one of its members. Although the Board was interested in the property as an investment, there was also a great deal of discussion about sub-leasing space in the building to the Benefit Board. In pursuing this property, the Board ignored a letter from the previous Mayor expressing his deep concern over the direct ownership of local real estate due to potential conflicts of interest and due to the lack of Board member accountability for such investments. The Board seemed determined to purchase the property, again without a clear systematic approach to analyzing all aspects of the purchase decision. The purchase of the property was suspended only after a new Board member strenuously objected to the purchase.

In the area of venture capital, the Board also relies upon their own judgement and personal contacts in reviewing potential investments. The decision to invest $10 million in the FCA II fund and $7.5 in the DC Capital Hedge fund illustrates the lack of a formal, systematic approach in valuing potential venture capital investments. The partners of the FCA II and DC Capital Hedge funds were referred to Metro. Both companies presented their credentials at a Board meeting and were hired by the Board at the same meeting. Other than the presentation by the managers, there was no additional analysis by the Board prior to recommending these investments. Based on a Board member inquiry, the Executive Secretary notified the Board that they would need to clarify the investment guidelines, since it appeared that FCA II did not meet the minimum requirement for experience, which was not less than three years proven successful experience as an organization, association, partnership, etc. The later discussion by the Board centered around the interpretation of the guidelines, that is, did the three year experience minimum refer to the individuals within the organization or to the organization itself? After a lengthy meeting, the Board re-interpreted the guidelines to refer to either an individual or an organization, with one Board member voting against the new interpretation. The investment in FCA II was allowed to proceed over the objections of that Board member. Although the Board re-interpreted the guidelines to apply to the experience of the individuals, the Board never formally changed their guidelines in the investment policy.

Recommendation: Develop a clear systematic approach to evaluating potential real estate, venture capital and alternative investments with recommendations from an independent third party.

Issue VIA-4: The Investment Board has not sufficiently monitored real estate, venture capital and alternative investments.

After entering into alternative investments, the Board has not maintained the necessary data to properly monitor Metro's investments in real estate, venture capital and other alternative investments. Occasionally these investment managers and/or property managers have reviewed their portfolios at Board meetings; however, these meetings can not replace a comprehensive monthly or quarterly analysis of investment performance. Certain data that should be readily available does not exist. For example, the Board can not readily produce a report detailing the purchase and sales data for each property that was recently sold by the fund or any other type of analysis of the final profit or loss on each property. For each venture capital fund, the Board does not have a report of Metro's initial investment commitment, the dollar amount given to the fund, the dates for future capital calls, and the fund's returns.

Recommendation: Develop a series of reports, produced on a comprehensive and consistent basis, which allows the Board to analyze the performance of each of Metro's alternative investments at least quarterly.

VII. Deferred Compensation

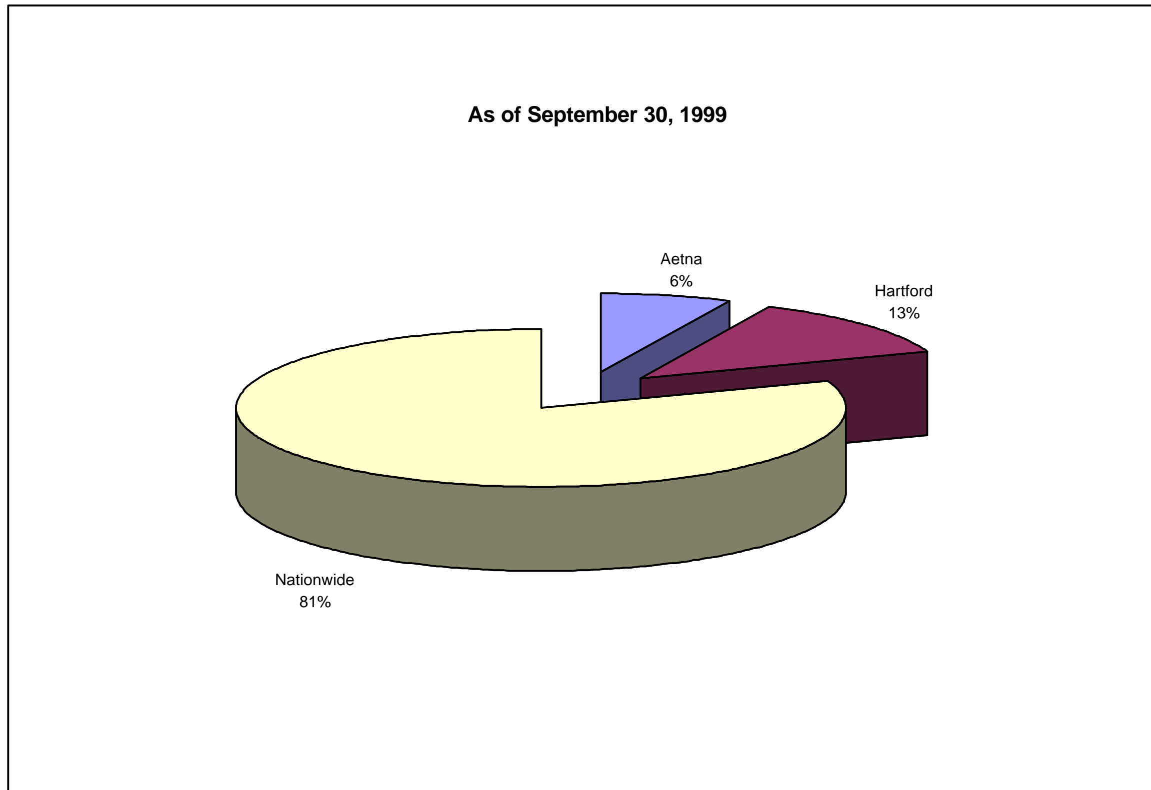
Summary of Industry Standards

Defined contribution plans for state or local governmental entities are governed by federal law under Section 457 of the Internal Revenue Service ("IRS") code. In order to defer taxes on participant assets, which are subject to the rules and regulation as defined in the IRS code, insurance companies created an annuity component in conjunction with the investment portion of the retirement funds. This allowed participants to defer taxes on their contributions until they became eligible to liquidate their assets in the form of an annuity. The advent of this type of arrangement precedes the introduction of 401(k) plans, which allows participants in the private sector to defer taxes without using annuities to comply with IRS regulations.

Metro's Plans

Metro's 457 plan was initially offered to participants in 1973 with Aetna as the sole provider. The oversight of the plan was the responsibility of the full Employee Benefit Board. In 1979, an RFP was issued for another provider, and Hartford Life, using Dean Witter funds, was chosen. Metro decided to keep the Aetna accounts open for existing participants but close the accounts to new participants. Approximately six months later, the Aetna accounts were re-opened to new participants, since the Dean Witter performance results were unsatisfactory. Due to Dean Witter's performance problems, another RFP was issued, and a contract was awarded to Nationwide (PEPSCO at that time). The accounts for both Aetna and Hartford were kept open for existing clients but closed to new participants; however, both providers later became available for new participants. There are presently three providers available to employees participating in the Metro 457 plan.

The following graph and table display the allocation of participant assets among the three Metro 457 plan providers.



Aetna	$6,296,302
Hartford	$12,767,121
Nationwide	$78,431,908
Total	$97,495,331

The following set of tables display the top five funds, in terms of participant assets, invested with each of the three providers. For each provider, the top five funds represent over 75% of total assets.

Aetna	
Aetna Fixed Account	$ 2,192,000
Aetna Growth and Income VP	$ 2,037,365
Janus Aspen Worldwide Gowth	$ 474,845
Fidelity VIP II Contrafund	$ 256,034
Janus Aspen Aggressive Growth	$ 197,548
Total Top 5 Funds	$ 5,157,792

Hartford	
Hartford General Declared Int. Rate	$ 4,286,294
Hartford Stock	$ 4,100,700
Janus Twenty	$ 740,778
Hartford Advisors	$ 546,897
Hartford Capital Appreciation	$ 535,218
Total Top 5 Funds	$ 10,209,887

Nationwide	
Nationwide Fixed Account	$ 29,723,827
American Century Ultra	$ 10,575,732
Fidelity Contrafund	$ 8,097,002
Fidelity Magellan	$ 6,179,876
Fidelity Equity Income	$ 5,727,660
Total Top 5 Funds	$ 60,304,097

The following tables display performance returns for the top five funds for each provider. Funds were segregated based on Morningstar's categories to provide a valid comparison between the funds and their appropriate benchmarks, as indicated by 1, 2, or 3.

Top Five Funds
Return and Risk
As of September 30, 1999

	Return				Risk
	Quarter	1 Year	3 Years	5 Years	5 Years
AETNA					
Aetna Fixed Account *	N/A	N/A	N/A	N/A	N/A
Aetna Growth and Income VP[1]	-5.22	24.36	18.09	19.63	16.91
Janus Aspen Worldwide Growth[3]	2.28	38.36	22.97	23.03	20.12
Fidelity VIP II Contrafund [1]	-5.07	29.53	21.65	N/A	N/A
Janus Aspen Aggressive Growth[2]	7.93	88.58	26.39	24.21	31.49
HARTFORD					
Hartford General Declared Int. Rate *	N/A	N/A	N/A	N/A	N/A
Hartford Stock [1]	-6.67	28.06	24.72	23.73	17.20
Janus Twenty[1]	0.96	53.25	40.38	34.40	25.90
Hartford Advisors[1]	-4.22	14.77	18.08	17.62	11.25
Hartford Capital Appreciation [2]	-5.08	36.84	16.78	18.08	20.50
NATIONWIDE					
Nationwide Fixed Account *	N/A	N/A	N/A	N/A	N/A
American Century Ultra[1]	-4.92	30.88	20.80	22.34	25.88
Fidelity Contrafund[1]	-4.80	30.82	22.37	22.37	18.13
Fidelity Magellan[1]	-6.13	35.20	23.77	21.54	18.83
Fidelity Equity Income[1]	-8.93	19.22	17.10	17.90	15.76
1. S&P 500 Index	*-6.24*	*27.81*	*25.11*	*25.03*	*17.36*
2. Russell 2000 Index	*-6.32*	*19.07*	*8.70*	*12.38*	*19.71*
3. MSCI World Index	*-1.40*	*29.91*	*17.62*	*16.40*	*14.74*

Note: Fund performance is shown net of fees, including investment management and variable annuity fees
** These funds are guaranteed investment contracts (GIC) which offer a fixed rate of return which was not supplied by the 457 providers at the time of this report.*

KPMG

The following table highlights a comparison between each fund and its relevant benchmark. The table assumes a participant invested $1,000 five years ago and earned the fund's annualized return over the last five years, which is then compared against what $1,000 would have earned had the fund's return been the same as the fund's benchmark return. Because five year returns for the Fidelity VIP II Contrafund are not available, three year returns are included. The last column in the table displays the difference between the two investments, on an absolute basis. To the right of the table, the difference between each fund's standard deviation percentage and that of the benchmark's is indicated. A positive relative risk indicates that the fund is taking more risk than the benchmark, while a negative relative risk indicates that the fund is taking less risk than the benchmark.

Top Five Funds
5 Year Returns
As of September 30, 1999

	Comparative Benchmark	5-Year Investment Values 9/30/99* [A]	5-Year Index Values 9/30/99* [B]	5-Year Gain/(Loss) Relative to Index [B] – [A]	5-Year Risk Relative to Index
AETNA					
Aetna Fixed Account	N/A	N/A	N/A	N/A	**N/A**
Aetna Growth and Income VP	S&P 500	$2,450	$3,055	**($-605)**	**-0.45**
Janus Aspen Worldwide Growth	MSCI World	$2,819	$2,137	**$682**	**5.38**
Fidelity VIP II Contrafund	S&P 500	$1,834	$1,958	**($-124)**	**-0.16**
Janus Aspen Aggressive Growth	Russell 2000	$2,957	$1,792	**$1,165**	**11.78**
HARTFORD					
Hartford General Declared Int. Rate	N/A	N/A	N/A	N/A	
Hartford Stock	S&P 500	$2,900	$3,055	**($-156)**	**-0.16**
Janus Twenty	S&P 500	$4,385	$3,055	**$1,330**	**8.54**
Hartford Advisors	S&P 500	$2,251	$3,055	**($-804)**	**-6.11**
Hartford Capital Appreciation	Russell 2000	$2,296	$1,792	**$504**	**3.14**
NATIONWIDE					
Nationwide Fixed Account	N/A	N/A	N/A	N/A	
American Century Ultra	S&P 500	$2,741	$3,055	**($-314)**	**8.52**
Fidelity Contrafund	S&P 500	$2,744	$3,055	**($-311)**	**0.77**
Fidelity Magellan	S&P 500	$2,652	$3,055	**($-403)**	**1.47**
Fidelity Equity Income	S&P 500	$2,278	$3,055	**($-777)**	**-1.60**

Note: The ending market value after five years does not include the effect of any cash flows

The following table highlights the expenses of each of the top five fund options versus an industry average for each asset class. The expense ratio of the fund is the fund's total annual operating expenses as a percentage of the fund's assets. This includes management fees, marketing fees (if any), the cost of shareholder mailings and other administrative expenses. The total expense ratio for 457 plan funds is higher than other mutual funds due to the mortality and expense charge, which is unique to 457 plans. Under the provisions of 457 laws, the insurance company guaranteed a minimum death benefit along with paying monthly annuity benefits. Due to this provision in the contracts, insurance companies added a charge to a fund's expense ratio to help pay for these death benefits. As a result of a change in laws governing 457 plans, the use of a mortality expense is no longer necessary, and a comparison to mutual fund expenses highlights the impact of these unnecessary expenses to participants under the existing plan's structure.

Fee Comparison

	Investment Expense Ratio	Mortality & Expense Ratio	Total Expense Ratio	Mutual Fund* Industry Average	Expense Ratio Over/(Under) Industry Average
AETNA					
Aetna Fixed Account	N/A	N/A	N/A	N/A	N/A
Aetna Growth and Income VP	0.58	0.85	1.43	0.98	0.45
Janus Aspen Worldwide Growth	0.72	1.00	1.72	1.43	0.29
Fidelity VIP II Contrafund	0.66	1.00	1.66	0.98	0.68
Janus Aspen Aggressive Growth	0.75	1.00	1.75	1.22	0.53
HARTFORD					
Hartford General Declared Interest Rate	N/A	N/A	N/A	N/A	N/A
Hartford Stock	0.46	0.90	1.36	0.98	0.38
Janus Twenty	0.91	0.85	1.76	0.98	0.78
Hartford Advisors	0.91	0.62	1.53	0.98	0.55
Hartford Capital Appreciation	0.64	0.90	1.54	1.22	0.32
NATIONWIDE					
Nationwide Fixed Account	N/A	N/A	N/A	N/A	N/A
American Century Ultra	1.00	0.65	1.65	0.98	0.68
Fidelity Contrafund	0.61	0.65	1.26	0.98	0.28
Fidelity Magellan	0.59	0.65	1.24	0.98	0.26
Fidelity Equity Income	0.57	0.65	1.22	0.98	0.24

*Note: Data derived from the Morningstar database using benchmark funds that are no-load, no deferred charges

The following are issues we found within the Deferred Compensation section, along with our recommendations.

Issue VIIA-1: Neither the Employee Benefit Board nor the Investment Board has been overseeing the 457 plan.

The full Employee Benefit Board had the original responsibility for overseeing the plan, including choosing providers and monitoring the plan on behalf of the participants. Since the inception of the plan, the Employee Benefit Board has not fulfilled its fiduciary responsibility by properly overseeing the plan. The Board has added new providers to the plan due to the poor performance of fund options offered by the plan's other providers. After new providers were hired, the Board re-opened poorly performing funds to new participants. This allowed plan participants to make investment decisions that were not optimal. The plan, as it stands today, has three providers with too many fund options that have poor or mediocre performance, excessive fees and restrictive transfer arrangements. In analyzing the returns and risk associated with the top five funds for each provider, which represents $75.7 million, $37.5 million of Metro employee's investments are earning returns below benchmarks. Additionally, $24.9 million of the assets in poorly performing funds have risk exceeding benchmarks.

Recommendation: Formally move the responsibility for overseeing the 457 plan to the Investment Board. Re-evaluate the entire plan by analyzing fund options, performance, fees, and other components of the plan.

Issue VIIA-2: There are too many fund options available to participants.

Metro's plan currently forces participants to choose between 121 funds spread among various asset classes. While it is desirable to offer participants a variety of fund options covering the major asset classes, the sheer number of fund options is detrimental to both the participants and to Metro. Most participants in the plan have limited investment knowledge, and offering too many options likely confuses and frustrates participants. Instead of making knowledgeable decisions based on financial information supplied by the plan, participants may choose options that are not in their best interests. As a fiduciary, the plan sponsor has the responsibility to monitor and analyze the fund's options. However, a proper analysis of each of the 121 funds would create an administrative burden for Metro.

Deferred Compensation Plan
Number of Funds
As of September 30, 1999

	Aetna	Hartford	Nationwide	Total
U.S. Equity Funds	**24**	**14**	**36**	**74**
Large Cap Growth	*11*	*3*	*11*	*25*
Large Cap Blend	*7*	*4*	*9*	*20*
Large Cap Value	*1*	*3*	*6*	*10*
Mid/Small Cap-Growth	*3*	*1*	*7*	*11*
Mid/Small Cap Blend	*2*	*1*	*2*	*5*
Mid/Small Cap Value	*0*	*2*	*1*	*3*
Global/Int'l Equity Funds	**6**	**4**	**5**	**15**
Balanced Funds	**6**	**4**	**6**	**16**
Fixed Income Funds	**4**	**3**	**5**	**12**
Money Market Funds	**1**	**1**	**1**	**3**
Real Estate Funds	**1**	**0**	**0**	**1**
Total	**42**	**26**	**53**	**121**

Recommendation: Reduce the number of options for each asset class. Eliminate duplicate funds, funds that have similar mandates, and funds that have minimal assets.