

**MINNESOTA STATE BOARD
OF INVESTMENT
MEETING
September 19, 1990
&
INVESTMENT ADVISORY
COUNCIL MEETING
September 18, 1990**

AGENDA

**STATE BOARD OF INVESTMENT
MEETING**

**Wednesday, September 19, 1990
8:30 A.M. - Room 125
State Capitol
Saint Paul**

- TAB
1. Approval of Minutes of June 6, 1990 Meeting
 2. Report from the Executive Director (H. Bicker)
 - A. Quarterly Investment Review (April 1 - June 30, 1990) A
 - B. Portfolio Statistics (June 30, 1990) B
 - C. Administrative Report C
 1. Budget and Travel Reports
 2. Status Report on Police and Fire Fund Consolidation
 3. Resignations from the IAC
 4. Expiration of IAC Appointments
 5. Accounting System Contract Extension
 3. Reports from Investment Advisory Council Committees (J. Yeomans)
 - A. Equity Manager Committee D
 1. Review of Manager Performance
 2. Special Review of IAI
 3. Status Report on Implementation of Custom Tilted Index Fund
 - B. Fixed Income Manager Committee E
 1. Review of Manager Performance
 2. Special Review of Western Asset Management
 - C. Alternative Investment Committee F
 1. Report on Fund Manager Annual Reviews
 4. Proposed Resolution Concerning the Proxy Voting Committee (P. Sausen) G
 5. Proposed Resolution Concerning the Valdez Principles (J. Growe) H
 6. Status Report on the Executive Director's Evaluation (P. Sausen)

MEMBERS OF THE BOARD:
GOVERNOR RUDY PERPICH
STATE AUDITOR ARNE H. CARLSON
STATE TREASURER MICHAEL A. McGRATH
SECRETARY OF STATE JOAN ANDERSON GROWE
ATTORNEY GENERAL HUBERT H. HUMPHREY III



EXECUTIVE DIRECTOR
HOWARD J. BICKER

STATE OF MINNESOTA
STATE BOARD OF INVESTMENT

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St Paul, MN 55155
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MINUTES

STATE BOARD OF INVESTMENT

June 6, 1990

The State Board of Investment (SBI) met at 8:30 A.M. on Wednesday, June 6, 1990 in Room 125, State Capitol, Saint Paul, Minnesota. Secretary of State Joan Anderson Growe, Acting Chair; State Auditor Arne H. Carlson; State Treasurer Michael A. McGrath; and Attorney General Hubert H. Humphrey III were present. Governor Rudy Perpich was absent.

The minutes of the March 15, 1990 meeting were approved.

EXECUTIVE DIRECTOR'S INVESTMENT REPORT

Howard Bicker, Executive Director, referred Board members to the Quarterly Report on Objectives for the quarter ended March 31, 1990. He stated that the SBI equalled or exceeded each objective for the Basic Retirement Funds and the Post Retirement Fund. Mr. Bicker reported that the Basic Funds decreased in value by 1.1 percent due to weakness in the fixed income and equity markets. He stated that there were no significant changes in the asset mix during the quarter. He stated that for the year ended March 31, 1990, the total Basic Funds exceeded the composite index (13.4% Basics vs. 12.9% composite) and the Basic Funds excluding alternative investments exceeded the median balanced fund (14.9% Basics vs. 13.3% median fund). He then stated that returns for the stock and bond segments closely tracked the returns of the market.

Mr. Bicker stated that the Post Retirement Fund decreased in value by 3.2 percent due to weakness in the bond market and a decrease in net contributions into the Fund. He stated that the cash component of the asset mix temporarily increased due to the receipt of semi-annual coupon payments from the dedicated bond portfolio. He referred Board members to the chart in the meeting materials displaying the benefit increases provided by the Post Fund.

Mr. Bicker then referred Board members to the portfolio statistics and stated that as of March 31, 1990 the Board managed assets totalling \$15.3 billion.

EXECUTIVE DIRECTOR'S ADMINISTRATIVE REPORT

Mr. Bicker referred Board members to the budget and travel reports in the meeting materials.

Mr. Bicker reviewed the actions of the 1990 Legislative Session. He stated that the SBI's FY 91 administrative budget was reduced two percent, as were many other state agency budgets. He stated that the manner in which the SBI will absorb the \$34,000 reduction will be presented in detail in the Administrative Committee Report. He then stated that due to a change in statute, the SBI will bill back 100 percent of its administrative budget to every fund the SBI invested based on the number of dollars invested. Mr. Bicker explained that, historically, the billback procedure was applied only to the retirement assets managed by the SBI. Mr. Bicker then stated that legislation will transfer the investment responsibility for the Workers' Compensation Assigned Risk Plan from the Department of Commerce to the State Board effective May 1, 1991 when the Department of Commerce's contract with the current investment manager expires. He stated that staff will be developing an investment plan for the assets and will be reporting to the Board at future Board meetings. Mr. Bicker next stated that there were two statutory changes concerning the Environmental Trust Fund. He stated the proposed Constitutional amendment dedicating lottery money to the Trust Fund would not change the SBI's investment authority with respect to the Trust Fund. He stated that staff will be working with the Legislative Commission on Minnesota Resources to determine how much money will be flowing into the Trust Fund and to develop an investment program.

Mr. Bicker then highlighted the sections of the Omnibus Pension Bill that apply to the SBI. He stated that the legislation provides that the Supplemental Investment Fund, a mutual fund-type program offered by the SBI, will be the third investment option for the Individual Retirement Account Plan, a new defined contribution plan for faculty of the state university and community college systems. He also stated that the College Supplemental Plan, whose participants invest in the Supplemental Investment Fund, will be administered by the state university and community college systems beginning July 1, 1991, rather than by the Teachers Retirement Association. He stated that staff will be working with the higher education systems to ensure that they put in place the reporting mechanisms the SBI needs to administer the program's investment function. Mr. Bicker reported that the legislation expands the Ambulance Service Plan, created in 1988, to include county attorney and other locally elected officials. He stated that the defined contribution plan is renamed the Public Employees Defined Contribution Plan and will gain new

participants. Finally, Mr. Bicker stated that the legislation specifies how the interest will be paid on late transfers from the Basics to the Post Fund and clarifies some procedures related to the state deferred compensation plan.

Mr. Bicker then reported that the Program Evaluation Division of the Legislative Auditor will be conducting a review of the State Board of Investment. He stated that the exact nature of the evaluation is not yet clear, but that in the ten years since the Program Evaluation Division last reviewed the SBI, the SBI has instituted a number of changes in its investment program. He stated that he has met with Legislative Auditor staff and will continue to report to the Board as the evaluation progresses.

ADMINISTRATIVE COMMITTEE REPORT

Treasurer McGrath distributed a report from the Administrative Committee (see Exhibit A). He reported that the Administrative Committee met on May 29, 1990 to consider several administrative matters: the Executive Director's Work Plan for fiscal year 1991, the administrative budget plan for fiscal year 1991, a Continuing Fiduciary Education Plan, the travel allocation policy for Board members, the biennial budget request for fiscal years 1992 and 1993, and the process to be used to evaluate the Executive Director. He then moved approval of the Committee recommendations concerning these items. The motion was seconded by Attorney General Humphrey. The motion was approved.

REPORT FROM THE TASK FORCE ON MANAGER RETENTION

Ms. Mares provided the report from the Task Force. She referred to the Board's decision at its January 1990 meeting to reaffirm the use of active management. She stated that issues remaining for the Task Force were how to measure active manager performance and whether the equity manager program is structured so that the manager group covers the entire market. She stated that the Task Force wholeheartedly endorsed the continued use of benchmarks for evaluating active manager performance. She stated that the Task Force recognizes that the goal is to have the aggregate equity portfolio provide better than market performance. She stated that the Task Force is comfortable with the idea that an active manager may outperform its benchmark while the benchmark underperforms the market as long as the total manager configuration does not have an investment style bias relative to the market. She stated that the Basic Funds' aggregate equity portfolio may underperform the market index if it is significantly overexposed to small capitalization companies. She stated that small growth style bias evolved from the selection of managers when the SBI first hired external managers. She added that the Task Force discussed whether they

would deliberately institute a style bias were they to construct an equity manager program today. She stated that the Task Force overwhelmingly agreed that they would not. She stated that the Task Force does not believe it has information that could predict when a particular style bias would outperform others.

Ms. Mares then stated that the Task Force discussed at length when and how to eliminate the style bias. She stated that they concluded that in the absence of clear information to implement the change at some specified time they would recommend systematically reducing the bias over the next two years. She stated that the Task Force reviewed several ways to phase out the bias. She stated that they considered reallocating assets among existing managers or adding an investment manager, either active or passive, to offset the exposure to small capitalization stocks. She stated that the Task Force concluded that neither action would provide satisfactory results. She then stated that the Task Force considered the use of a completeness fund that would have characteristics that would offset the style bias. She stated that the Task Force concluded that tilting the index fund would be the most cost effective means to reduce the bias.

Ms. Mares then reported that the Task Force reviewed the procedures used to evaluate the active equity managers. She stated the Task Force was comfortable with the existing qualitative review procedures but had suggestions for certain modifications regarding quantitative review. She stated that the Task Force determined it preferred to have more frequent reviews of each manager's performance rather than relying on the current "probation line" to trigger a re-evaluation. She stated the Task Force recommends an in-depth review be conducted if a manager's performance lags its benchmark over the latest five-year period, and that an in-depth review of each manager be conducted at least every three years. Finally, she referred members to the specific recommendations of the Task Force in the meeting materials.

In response to a question from Mr. Carlson, Ms. Mares stated that after the recommendations are implemented, the Basic Funds equity portfolio will be designed from a risk standpoint to resemble the market. She stated that the portfolio structure will then allow the SBI to focus on the value added from active management, i.e., if active managers outperform their benchmarks, then the total equity portfolio should outperform the market. She added that if active managers are found not to add value to their benchmarks, then the IAC will work systematically toward indexing more of the fund. Mr. McGrath moved approval of the Task Force recommendations. Mr. Humphrey seconded. The motion was adopted.

INVESTMENT ADVISORY COUNCIL COMMITTEE REPORTS

EQUITY MANAGER COMMITTEE

Ms. Yeomans stated that the Committee reviewed the performance of the active equity managers and determined that the managers outperformed the aggregate benchmark and the Wilshire 5000 for the latest one year, three year, and five year periods. She stated that the Committee reviewed the investment manager guidelines and determined that there were no revisions needed at this time.

Ms. Yeomans then stated that the Committee recommends the Board renew the contracts of Alliance Capital Management, Forstmann Leff, IDS Advisory, Investment Advisers Inc., Lieber and Company, and Waddell and Reed. Mr. McGrath moved approval of the Committee recommendation. Mr. Humphrey seconded. The motion was approved.

FIXED INCOME MANAGER COMMITTEE

Ms. Yeomans reported that staff studied the feasibility of introducing performance based fees for the fixed income managers. She stated that staff and the Committee concluded that performance based fees were not appropriate at this time due to a lack of accurate pricing and disparities in return calculations. She then reported that the Committee reviewed the performance of the enhanced index managers and the active managers. She stated that staff performed an in-depth review of Morgan Stanley and that the Committee concurs with the recommendation that the Board terminate Morgan Stanley and transfer the assets to Western Asset Management. Mr. Carlson moved approval of the Committee recommendation. Mr. Humphrey seconded. The motion was approved.

Ms. Yeomans then stated that the Committee recommends contracts be renewed with Investment Advisers, Lehman Management, Miller Anderson Sherrerd, Western Asset Management, Fidelity Management, and Lincoln Capital. Mr. Carlson moved approval of the Committee recommendation. Mr. Humphrey seconded. The motion was approved.

ALTERNATIVE INVESTMENT COMMITTEE

Ms. Yeomans introduced Mr. Gudorf, Chair of the Alternative Investment Committee, and stated that Mr. Gudorf would provide the Committee report. Mr. Gudorf stated that the Committee had six recommendations for the Board to consider. He stated that the Committee recommends the Board renew the contract with its

oil and gas consultant, Gene Graham. He stated the contract calls for spending up to \$20,000 a year.

Mr. Gudorf then stated that the Committee recommends two real estate investments. He stated that the first is Copley Value Fund, which is a joint venture between Copley Real Estate Advisors, the Bass Brothers, and GE Capital. He stated that the fund, which will have a maximum value of \$1 billion, will seek out unusual value situations in large real estate transactions available in the current real estate market. He stated the Committee recommends the SBI invest up to \$75 million or 15 percent of the fund. He stated the second real estate investment is the LaSalle Income Parking Fund. He stated that the Committee is impressed with the ability of the real estate manager to make investments in this specialized area. He stated the Committee recommends the SBI invest the lesser of \$20 million or 20 percent of the fund.

Mr. Gudorf then stated that the Committee recommends three investments in venture capital. He stated the first is an investments of up to \$30 million in the Zell/Chilmark Fund. He stated the Fund will be between \$250 million and \$1 billion and will seek investments in corporate restructurings. He stated that the other two venture capital investments would be follow-on investments with current managers. He stated the Committee recommends the SBI invest \$20 million or 20 percent of the Brinson Partners Acquisition Fund II. He stated the SBI invested in the previous fund when the manager was known as First Chicago Venture Capital Group. He stated the group is unique in providing a secondary market for investments in venture capital limited partnerships. He then stated the Committee also recommends a follow-on investment with IAI Venture Capital Group. He stated that with the encouragement of the SBI, IAI Venture Capital created the Superior Ventures Fund in 1986 to invest primarily in venture capital opportunities in Minnesota. He stated that the current fund would direct 50 percent of total investments to Minnesota.

Mr. Carlson moved approval of the Committee's six recommendations. Mr. Humphrey seconded. The motion was approved.

The meeting was adjourned at 9:20 A.M.

Respectfully submitted,



Howard J. Bicker
Executive Director

Attachment



STATE OF MINNESOTA
OFFICE OF THE STATE TREASURER
ST. PAUL 55155

MICHAEL A. McGRATH
 Treasurer

303 State Administration Building
 50 Sherburne Avenue
 St. Paul, Minnesota 55155
 (612) 296-7091

May 30, 1990

TO: Members, State Board of Investment

FROM: Michael McGrath, Chair
 SBI Administrative Committee

SUBJECT: Committee Report

The SBI Administrative Committee met on May 29, 1990 and took action on the following items:

1) Executive Director's FY91 Workplan

Mr. Bicker presented his proposed workplan for FY91. Like the previous workplans, the FY91 plan follows the same category order found in the Executive Director's position description. The plan is a compilation of on-going responsibilities as well as the new initiatives the Executive Director will undertake during the next year.

A copy of the proposed plan is shown in Attachment A.

RECOMMENDATION:

The Committee recommends that the SBI approve the attached FY91 Executive Director's Workplan. Further, the Committee recommends that the workplan serve as the basis for the Executive Director's performance evaluation for FY91.

2) FY91 Administrative Budget

The Committee reviewed the proposed plan for the SBI's FY91 administrative budget. The 2% cut mandated by the 1990 Legislature will be taken in two areas:

- o \$20,000 will be reduced from personnel. Due to staff turnover, a vacancy will be filled at a lower salary level. This will provide permanent salary savings.
- o \$14,000 will be reduced from leases, contracts, supplies and equipment. A variety of items will be reduced or eliminated to accommodate the cut.

A summary of the proposed FY91 budget plan is included as Attachment B. The Committee noted that the amounts shown may be modified due the receipt of FY91 salary supplement allocation and allowance for carryforward dollars.

RECOMMENDATION:

The Committee recommends that the SBI approve the attached FY 91 Administrative Budget Plan subject to the potential modifications noted above.

3) Fiduciary Education Plan

In 1989, the Legislature enacted the Fiduciary Responsibility Act. The act requires each public pension plan to establish a continuing education plan for its fiduciaries. The proposed plan for the SBI is contained in Attachment C.

RECOMMENDATION:

The Committee recommends that the SBI approve the attached Continuing Fiduciary Education Plan.

4) Board Member Travel Allocation Policy

In FY90, each Board member was allocated up to \$2,000 from the SBI's administrative budget for travel by him or herself and their staff for purposes related to SBI matters. Actual travel expenditures have been reported to the Board as part of the regular quarterly travel reports.

RECOMMENDATION:

The Committee recommends that the SBI renew this policy for FY91. The Committee recommends that this policy be reviewed by the Board annually.

5) FY92-93 Biennial Budget Request

The SBI's administrative budget is funded by a legislative appropriation from the general fund. The entire budget is billed back to the various funds under management and the receipts are deposited in the general fund as non-dedicated revenue.

Mr. Bicker proposes that the SBI submit a "same level" budget request for FY92-93. The proposed request has been prepared using the budget guidelines issued by the Department of Finance (DOF) to date.

In order to ensure that the appropriate documents can be prepared and submitted to the DOF on a timely basis, the SBI needs to take action on the proposed budget request at its June 1990 meeting. If future directives from the DOF require significant changes to this proposal, the Committee will be reconvened to review them.

A summary of the proposed budget request is included as Attachment D.

RECOMMENDATION:

The Committee recommends that the SBI approve a "same level" budget request for FY92-93 as defined by the guidelines issued by the Department of Finance (DOF). Further, the Committee recommends that the Executive Director have the flexibility to make any adjustments to the proposed budget necessary to meet future directives from the DOF regarding submission of budget requests.

6) Executive Director's FY90 Evaluation

The Committee discussed the process that will be used by the Board to evaluate the executive director for FY90. The Committee members agreed that the performance review should be completed prior to the September 1990 meeting of the SBI.

RECOMMENDATION:

The Committee recommends that the SBI adopt the following process to assure the executive director's FY90 performance evaluation is completed in a timely manner:

- o The evaluation will be based on the executive director's position description and on the results of the executive director's workplan for FY90 (the workplan follows the format of the position description).
- o The SBI deputies/designees will develop an appropriate evaluation form for use by each Board member.
- o As the Governor's designee, the Commissioner of Finance will coordinate distribution and collection of the evaluation forms. In addition, he will meet with Mr. Bicker to review all evaluations prior to the September 1990 meeting of the SBI.

ATTACHMENT A

STATE BOARD OF INVESTMENT

Executive Director's Workplan

FY91

(Categories A, B, C, D, E correspond to the position description)

<u>A. DEVELOPMENT OF INVESTMENT POLICIES</u>	<u>Projected Time Frame</u>
1. Assist retirement systems in developing potential modifications to the retirement benefit increase formula.	Jul. - Jun.
2. Develop implementation plans for new investment authority or new investment vehicles, as needed. Possibilities for FY91 include international securities and short selling strategies.	Jul. - Jun.
3. Develop investment management plans for funds that receive lottery proceeds (Environmental Trust Fund, Greater Minnesota Corporation).	Jul. - Jun.
4. Review feasibility of market timing strategies.	Jul. - Dec.
5. Review existing investment management plan for the Assigned Risk Plan. Management will be transferred from Department of Commerce to the SBI in May 1991.	Jan. - Jun.

ATTACHMENT A (con't)

FY91 Workplan (con't)

<u>B. IMPLEMENTATION OF INVESTMENT POLICIES APPROVED BY THE SBI.</u>	<u>Projected Time Frame</u>
1. Meet or exceed the performance objectives established for the Basic Retirement Funds:	On-going, reported quarterly
o Obtain returns that are 3-5 percentage points over inflation over the last 10 years (FY82-FY91).	
o Outperform the median fund from the TUCS universe of public and private balanced funds over the last five years (FY87-FY91).	
o Outperform a composite of market indices over the last five years (FY87-FY91).	
2. Meet or exceed the performance objectives established for the Post Retirement Fund:	On-going, reported quarterly
o Generate 5% realized earnings in FY 91 to maintain current benefits.	
o Generate at least 3% additional realized earnings in FY91 to provide a benefit increase to current retirees on January 1, 1992.	
3. Implement the method(s) chosen to control style-bias or misfit in the active manager stock program.	Jul. - Dec.
4. Implement new/replacement manager search process for active stock and bond managers.	On-going
5. Consider additional investments with new/existing alternative investment managers.	On-going
6. Review opportunities for in-state investing with the Proxy Committee.	On-going

ATTACHMENT A (con't)

FY91 Workplan (con't)

<u>C. REVIEW AND CONTROL OF INVESTMENT POLICIES</u>	<u>Projected Time Frame</u>
1. Monitor and evaluate active stock and bond manager performance in accordance with the SBI's Manager Continuation Policy.	On-going
2. Monitor implementation of Northern Ireland mandate.	On-going
3. Monitor implementation of the Board's resolution on South Africa.	On-going
4. Monitor implementation of proxy voting procedures.	On-going
5. Review investment guidelines for active stock and bond managers on an annual basis.	Mar. - Jun.

ATTACHMENT A (con't)

FY91 Workplan (con't)

<u>D. ADMINISTRATION AND MANAGEMENT OF STAFF OPERATIONS</u>	<u>Projected Time Frame</u>
1. Cooperate in all respects with the annual audit of SBI operations by the Legislative Auditor.	Jul. - Dec.
2. Prepare FY92-93 administrative budget request and seek legislative approval.	Sep. - May
3. Prepare and seek approval of the SBI's legislative proposal for 1991 Legislative Session, if needed.	Sep. - May
4. Review need for RFP for the internal portfolio accounting system.	Jul. - Sep.
5. Formalize a disaster recovery plan for SBI staff operations.	Jan. - Jun.
6. Prepare FY 1992 Management and Budget Plan.	Mar. - Jun.
7. Cooperate in all respects with the proposed study to be conducted by the Program Evaluation Division of the Legislative Auditor.	Jul. - Dec.

ATTACHMENT A (con't)

FY91 Workplan (con't)

<u>E. COMMUNICATION AND REPORTING</u>	<u>Projected Time Frame</u>
1. Prepare reports on investment results.	Quarterly
2. Prepare status reports on the Executive Director's FY91 Workplan for review by the SBI, IAC and Consultant.	Semi-annually, or as requested
3. Meet with the SBI and IAC on a quarterly basis and at other times as required.	Quarterly, or as requested
4. Meet with the Board's designees on a monthly basis, as requested.	Monthly, or as requested
5. Review quarterly report format and recommend appropriate changes.	Jul. - Dec.
6. Prepare FY 1990 Annual Report.	Sep. - Feb.
7. Coordinate round table discussions with SBI's external managers.	Periodic, 2-4 per year
8. Conduct investment conference for SBI clientele.	Jan. - Mar.
9. Conduct information sessions for Supplemental Investment Fund user groups.	On-going

ATTACHMENT B

SBI ADMINISTRATIVE BUDGET
 FY91
 OVERVIEW

	<u>FY90 Budget</u>	<u>FY91 Budget*</u>	<u>Difference</u>
Personnel	\$1,339,580	\$1,319,580	-20,000
Contracts	311,000	306,000	-5,000
Operating Expenses	70,000	70,000	0
Supplies/Equipment	37,000	28,000	-9,000
	<u>\$1,757,580</u>	<u>\$1,723,580</u>	<u>-34,000</u>

* Subject to modifications due to receipt of salary supplement and carryforward allowed by the Department of Finance.

Personnel Costs: Salaries, retirement, insurance, FICA, Severance

This category will be reduced by \$20,000 over the original budget for the previous year. Personnel changes due to staff turnover will reduce overall salary costs.

Contractual Services: Rents, leases, printing, data processing

This category will be reduced by \$5,000.

Operating Expenses: Communications, travel, miscellaneous fees

The amount allocated to this category is unchanged from the previous year.

Supplies/Equipment: Office equipment, furnishings, and supplies

This category will be reduced by \$9,000 from the previous year.

ATTACHMENT C

CONTINUING FIDUCIARY EDUCATION PLAN

REQUIRED BY MS 356A.13

The State Board of Investment (SBI) undertakes the following activities related to fiduciary education. Taken as a group, these activities shall constitute the plan for continuing fiduciary education required by Minnesota Statutes 356A.13 (copy attached). In addition, pursuant to statutory requirements of qualification, the SBI executive director and many members of the Board's Investment Advisory Council (IAC) can be reasonably considered to be experts with respect to their duties as fiduciaries.

1. Briefing for New Board/IAC Members

Shortly after election to the Board or appointment to the IAC, each new member is briefed on SBI operations and policies. As part of the briefing, SBI's legal counsel will review the member's fiduciary obligations and responsibilities as specified in Minnesota Statutes Chapters 11A and 356A.

2. Development and Review of Investment Policies

The SBI adopts comprehensive investment policies for each fund under its control. The policies cover investment objectives, asset allocation, management structure and performance evaluation. Policy papers or reports on these topics are developed and written by SBI staff in conjunction with the IAC and consultant. Relevant research and analyses from the academic and professional investment fields are used to formulate these policy guidelines.

After they are formally adopted by the Board, these written policies guide the management of all assets under the SBI's control. The SBI intends to review its stated investment policies periodically. This review may occur within the framework of the SBI's regular quarterly meetings or may take place at special meetings or seminars specifically designated for this purpose.

3. Input from Board's Consultant

The SBI retains an outside investment consultant to advise the Board members on a wide variety of investment management issues. As part of its contract with the SBI, the consultant offers to meet with the Board members or their designees to discuss investment-related issues. These individual consultations occur throughout the year. In addition, the consultant is available at each meeting of the Board and IAC. These meetings are supplemented by quarterly reports on investment performance prepared by the consultant.

4. Manager "Round Tables"

The SBI intends to convene small groups of its external money managers to discuss issues related to investment management and the financial markets. These "round table" discussions will be held periodically throughout the year and will be open to Board members and their designees, IAC members and other interested parties. It is anticipated that 2-4 round tables will be held each year.

5. SBI Investment Conference

The SBI intends to host an annual one-day symposium on investment issues for Board and IAC members as well as the trustees of the retirement systems whose assets are managed by the SBI. Topics may include the outlook for the economy and the financial markets, investment strategy or special issues of current interest in the capital markets. Speakers will be drawn from the SBI's contacts in the financial community.

6. Travel Allocation

The SBI allocates \$2,000 annually to each Board member (or their designee) for costs associated with attendance at investment-related seminars and conferences. This allocation is used at the discretion of each Board member.

Date: May, 1990

Minnesota Statutes

356A.13. CONTINUING FIDUCIARY EDUCATION.

Subdivision 1. **Obligation of fiduciaries.** A fiduciary of a covered pension plan shall make reasonable effort to obtain knowledge and skills sufficient to enable the fiduciary to perform fiduciary activities adequately. At a minimum, a fiduciary of a covered pension plan shall comply with the program established in accordance with subdivision 2.

Subd. 2. **Continuing fiduciary education program.** The governing boards of covered pension plans shall each develop and periodically revise a program for the continuing education of any of their board members and any of their chief administrative officers who are not reasonably considered to be experts with respect to their activities as fiduciaries. The program must be designed to provide those persons with knowledge and skills sufficient to enable them to perform their fiduciary activities adequately.

ATTACHMENT D

ADMINISTRATIVE BUDGET
FISCAL YEAR 1992-93 REQUEST
OVERVIEW

The SBI's FY92-93 budget request reflects a "same level" budget. No "change level" items are anticipated.

	<u>FY91 Budget</u>	<u>FY92 Request*</u>	<u>FY93 Request*</u>
Personnel	\$1,319,580	\$1,319,580	\$1,319,580
Contracts	306,000	306,000	306,000
Operating Expenses	70,000	70,000	70,000
Supplies/Equipment	28,000	28,000	28,000
Total	<u>\$1,723,580</u>	<u>\$1,723,580</u>	<u>\$1,723,580</u>

* May be modified pending receipt of new budget guidelines or carryforward allowances made by the Department of Finance.

Personnel Costs

The figures above were prepared using the guidelines issued by the Department of Finance to date. As a result, no allowance for salary increases is shown for FY91, FY92 or FY93.

Salary increases are covered by a separate salary supplement appropriation. The SBI will not receive its portion of the salary supplement until the start of each year of the biennium.

Total complement request remains at 25 positions for FY92 and FY93.

Other Expense Categories

All other expense categories for FY92 and FY93 reflect the same amounts as those budgeted for FY91. No allowance for inflation has been made.

It should be noted that unforeseen increases in space rental, data processing costs and other necessary contractual services could require adjustments in the amounts allocated to various expenditures categories.

AGENDA

**INVESTMENT ADVISORY COUNCIL
MEETING**

**Tuesday, September 18, 1990
2:00 P.M.**

**MEA Building - Conference Rooms "A" & "B"
Saint Paul**

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 1. Report on Fund Manager Annual Reviews

MEMBERS OF THE BOARD.
GOVERNOR RUDY PERPICH
STATE AUDITOR ARNE H. CARLSON
STATE TREASURER MICHAEL A. McGRATH
SECRETARY OF STATE JOAN ANDERSON GROWE
ATTORNEY GENERAL HUBERT H. HUMPHREY III



EXECUTIVE DIRECTOR
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STATE OF MINNESOTA
STATE BOARD OF INVESTMENT

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MINUTES

INVESTMENT ADVISORY COUNCIL

June 5, 1990

The Investment Advisory Council met on Tuesday, June 5, 1990 at 2:00 P.M. in the MEA Building, Saint Paul, Minnesota.

MEMBERS PRESENT: Harry Adams, John Bohan, Elton Erdahl, Paul Groschen, Kenneth Gudorf, James Hacking, Peter Hutchinson, Vernell Jackels, Malcolm McDonald, Judith Mares, Gary Norstrem, Joseph Rukavina, Raymond Vecellio, Deborah Veverka, and Jan Yeomans.

MEMBERS ABSENT: James Eckmann and David Jeffery.

SBI STAFF: Howard Bicker, Beth Lehman, James Heidelberg, Harriet Balian, and Charlene Olson.

OTHERS ATTENDING: Edward Burek; Christie Eller; Richard Helgeson; John Manahan; O. M. Ousdigian; Peter Sausen; John Yunkers, Legislative Auditor's Office; Howard Buska and John Hagman, Retired Educators Association of Minnesota.

The minutes of the March 14, 1990 meeting were approved.

EXECUTIVE DIRECTOR'S INVESTMENT REPORT

Howard Bicker, Executive Director, referred members to the Quarterly Report on Objectives for the quarter ended March 31, 1990. He stated that the Basic Retirement Funds exceeded the real rate of return objective over the last ten years by 9.1 percentage points a year, equalled the composite index return over the last five years, and outperformed the median fund return over the past five years by 0.7 percentage points annually. Mr. Bicker reported that the Post Retirement Fund exceeded its objective of producing eight percent annual realized earnings by

generating sufficient earnings to provide a 4.0 percent benefit increase effective January 1990.

Mr. Bicker reported that the Basic Funds decreased in value by 1.1 percent due to weakness in the fixed income and equity markets. He stated that there were no significant changes in the asset mix during the quarter. He stated that the Basic Funds underperformed the total fund composite return during the quarter. He stated that the returns for the stock and bond segments closely tracked the returns of the market.

Mr. Bicker stated that the Post Retirement Fund decreased in value by 3.2 percent due to weakness in the bond market and a decrease in net contributions into the Fund. He stated that the cash component of the asset mix temporarily increased due to the receipt of semi-annual coupon payments from the dedicated bond portfolio. He referred members to the chart in the meeting materials displaying the benefit increases provided by the Post Fund.

Mr. Bicker then referred members to the portfolio statistics and stated that as of March 31, 1990 the Board managed assets totalling \$15.3 billion.

EXECUTIVE DIRECTOR'S ADMINISTRATIVE REPORT

Mr. Bicker referred members to the budget and travel reports in the meeting materials.

Mr. Bicker reviewed the actions of the 1990 Legislative Session. He stated that the SBI's FY 91 administrative budget was reduced two percent, as were many other state agency budgets. He stated that the manner in which the SBI will absorb the \$34,000 reduction will be presented in detail in the Administrative Committee Report. He then stated that due to a change in statute, the SBI will bill back 100 percent of its administrative budget to every fund the SBI invested based on the number of dollars invested. Mr. Bicker explained that, historically, the billback procedure was applied only to the retirement assets managed by the SBI. Mr. Bicker then stated that legislation will transfer the investment responsibility for the Workers' Compensation Assigned Risk Plan from the Department of Commerce to the State Board effective May 1, 1991 when the Department of Commerce's contract with the current investment manager expires. He stated that staff will be developing an investment plan for the assets and will be reporting to the Board at future Board meetings. Mr. Bicker next stated that there were two statutory changes concerning the Environmental Trust Fund. He stated the proposed constitutional amendment dedicating lottery money to the Trust Fund would not change the SBI's investment authority with respect to the Trust Fund. He stated that staff will be working with the Legislative Commission on Minnesota Resources to determine how much money will be flowing into the Trust Fund and to develop an investment program.

Mr. Bicker then highlighted the sections of the Omnibus Pension Bill that apply to the SBI. He stated that the legislation provides that the Supplemental Investment Fund will be the third investment option for the Individual Retirement Account Plan, a new defined contribution plan for faculty of the state university and community college systems. He also stated that the College Supplemental Plan, whose participants invest in the Supplemental Investment Fund, will be administered by the state university and community college systems beginning July 1, 1991, rather than by the Teachers Retirement Association. He stated that staff will be working with the higher education systems to ensure that they put in place the reporting mechanisms the SBI needs to administer the program's investment function. Mr. Bicker reported that the legislation expands the Ambulance Service Plan, created in 1988, to include county attorney and other locally elected officials. He stated that the defined contribution plan is renamed the Public Employees Defined Contribution Plan and will gain new participants. Finally, Mr. Bicker stated that the legislation specifies how the interest will be paid on late transfers from the Basics to the Post Fund and clarifies procedures related to the state deferred compensation plan. He explained that the SBI is responsible for investment options and the Minnesota State Retirement System is responsible for marketing efforts within the deferred compensation plan.

Mr. Bicker then reported that the Program Evaluation Division of the Legislative Auditor will be conducting a review of the State Board of Investment. He stated that the exact nature of the evaluation is not yet clear, but that in the ten years since the Program Evaluation Division last reviewed the SBI, the SBI has instituted a number of changes in its investment program. He stated that he has met with Legislative Auditor staff and will continue to report to the IAC and the Board as the evaluation progresses.

ADMINISTRATIVE COMMITTEE REPORT

Peter Sausen, Assistant Commissioner of Finance, gave the Administrative Committee report. He stated that the Committee approved the Executive Director's Work Plan with two changes. He stated that a plan for the Executive Director's evaluation would be in place by July and the evaluation would be based on the fiscal year 1990 work plan. He stated that the Committee reviewed the SBI administrative budget plan for fiscal year 1991 including the two percent budget reduction mandated by the Legislature, a Continuing Fiduciary Education Plan, the Board member travel allocation policy, and the biennial budget request for fiscal years 1992 and 1993. He reported that the Committee recommends that the Board approve all of these items.

REPORT FROM THE TASK FORCE ON MANAGER RETENTION

Ms. Mares stated that the Task Force affirmed the use of benchmarks to evaluate manager performance. She reported that the Task Force was comfortable with the idea that an active manager may outperform its benchmark while the benchmark underperforms the market as long as the total manager configuration does not have an investment style bias relative to the market. She stated that the objective of the SBI as plan sponsor is to maintain a neutral position with respect to the market. She then stated that the question before the Task Force was how to eliminate the current style bias in the Basic Funds equity manager program.

Ms. Mares stated that the Task Force held a series of discussions on the issue. She stated the Task Force discussed whether they would deliberately institute a style bias were they to construct an equity manager program today. She stated that the Task Force agreed that they would not because they do not believe they have information that they could consistently bring to the Board concerning when a particular style bias was appropriate. She stated that the Task Force then determined they needed to decide how to eliminate the bias over time. She stated the Task Force reviewed several options, including constructing a completeness fund and tilting the characteristics of the index fund to offset the effect of the current style bias. She stated the Task Force concluded that the most efficient and cost effective solution would be to tilt the index fund and do so over a two year period.

Ms. Mares then reported that the Task Force reviewed the procedures used to evaluate the active managers. She stated the Task Force determined they preferred to have more frequent reviews of each manager's performance rather than use the current "probation line" as a quantitative evaluation measure. She stated the Task Force recommends each manager be reviewed at least every three years. Finally, she referred members to the specific recommendations of the Task Force in the meeting materials.

Ms. Veverka stated that Task Force members concluded that if small stock returns increase relative to the market, then the phase-out of the style bias would be accelerated. In response to a question from Mr. Bohan, Mr. Bicker stated that a tilted index fund would be evaluated by tracking its performance against a specified target just as the index fund currently is evaluated. In response to questions from Mr. Bohan and Mr. Gudorf, Ms. Mares stated the Task Force concluded that none of the current managers would be appropriate as a manager of a special portfolio designed to offset the current style bias. Ms. Veverka stated that she believed there are few managers who specialize in large capitalization stocks that would be available to manage such a portfolio. In response to a question from Mr. McDonald, Ms. Mares stated that the Task Force concluded that tilting the index

fund would provide a portfolio that would be very similar to the results one would achieve by using a special portfolio to correct for the style bias. Mr. Bicker added that the SBI could achieve its objective more efficiently and cost effectively by tilting the index fund.

After further discussion, Mr. McDonald moved acceptance of the Task Force recommendations. Mr. Gudorf seconded. The motion was approved.

INVESTMENT ADVISORY COUNCIL COMMITTEE REPORTS

EQUITY MANAGER COMMITTEE

Ms. Veverka reported that the Equity Manager Committee agreed that it would conduct an in-depth review of Investment Advisers, Inc. She stated that the Committee reviewed the managers' performance and observed that for the quarter the aggregate benchmark exceeded the market. She stated that the Committee reviewed the investment manager guidelines and concluded no changes were needed at this time. She then stated that the Committee recommends contracts be renewed with Alliance Capital Management, Forstmann Leff Associates, IDS Advisory, Investment Advisers, Inc., Lieber and Company, and Waddell and Reed. Mr. Hutchinson moved approval of the Committee recommendation. Mr. McDonald seconded. The motion was approved.

FIXED INCOME MANAGER COMMITTEE

Mr. Norstrom reported that the Fixed Income Manager Committee considered the feasibility of adopting performance based fees for the active managers. He stated that the Committee concurred with the staff conclusion that performance based fees were not appropriate at this time due to a lack of adequate pricing and an absence of third party verification. He stated that the Committee reviewed the performance of the enhanced index managers and was satisfied with their performance to date. He stated that the Committee reviewed the performance of the active managers and reported that the active managers underperformed the aggregate benchmark for the quarter and for the year but outperformed the aggregate benchmark for the last five years and since inception. He stated that, accordingly, the Committee had no recommendations concerning the active managers at this time.

Mr. Norstrom stated that the Committee had two items requiring approval. He stated that the Committee supports staff's conclusion that the Board terminate Morgan Stanley as an active fixed income manager. Mr. Norstrom stated that staff recommends Morgan Stanley's portfolio be placed with Western Asset. Mr. Norstrom then stated that the Committee recommends contracts be renewed with each of the six remaining managers: Investment Advisers; Lehman Management; Miller Anderson, Sherrerd; Western Asset Management; Fidelity Management; and

Lincoln Capital. In response to a question from Ms. Yeomans, Mr. Bicker stated that the enhanced index managers were expected to provide returns of 15 to 30 basis points in excess of the market, but that their performance has been affected by costs associated with the initial portfolio investment and a \$150 million add-on investment. Mr. Norstrem moved adoption of the Committee recommendations. Mr. Hutchinson seconded. The motion was approved.

ALTERNATIVE INVESTMENT COMMITTEE

Mr. Gudorf gave the Alternative Investment Committee report. He stated that staff and the Committee held annual review sessions with four real estate managers. He stated that Trust Company of the West (TCW) and Heitman and performed well and Rosenberg Real Estate Equity Funds (RREEF) and Aldrich, Eastman and Waltch (AEW) performed less well. He stated that the managers responded to a staff inquiry that there are no major property write-downs anticipated. Mr. Gudorf then reported that the real estate manager "roundtable" discussion conducted in late May 1990 was productive and informative.

Mr. Gudorf stated that staff and the Committee recommend renewal of the contract with the oil and gas consultant, Gene Graham. He then stated that the Committee has several specialty investments in real estate and venture capital to recommend. He stated that the Committee recommends an investment up to \$75 million or 15 percent of the Copley Value Fund. He explained that the Copley Value Fund is a joint venture with Copley Real Estate, the Bass Brothers and GE Capital to raise between \$500 million and \$1 billion targeted for large investments in the currently soft real estate market. He stated that the Committee was impressed with the people involved in the Fund. He stated the Committee also recommends investing 20 percent or up to \$20 million in the LaSalle Income Parking Fund. He stated the Fund is different from other investments the SBI has made in real estate. He stated that the Committee was impressed with the LaSalle people and their knowledge of the particular market niche.

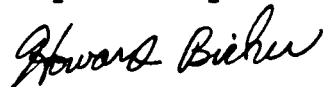
Mr. Gudorf then stated that the Committee recommends an investment up to \$30 million or 20 percent, whichever is less, in the Zell/Chilmark Fund. He stated that the venture capital partnership will raise up to \$1 billion to invest in corporate restructurings. He stated the principals are Sam Zell and Dave Schulte, who directs Chilmark and has extensive experience in financial restructuring deals. In response to a question from Ms. Mares, Mr. Gudorf stated that Mr. Zell will contribute a great amount of time to the project at the beginning of a deal and that the Zell organization has sufficient resources to make the project succeed. Mr. Bohan stated that Mr. Schulte will be devoting his entire time to the project, and agreed with Mr. Gudorf that the Zell organization has sufficient resources to bring to the project. In response to another question from Ms.

Mares, Mr. Gudorf stated that the Zell/Chilmark Fund appears to be the first fund to be successful in raising large sums to pursue corporate restructuring opportunities. He stated that the management fee is being negotiated.

Mr. Gudorf then reported that the Committee recommends two follow-on venture capital investments. He stated that the first is with Brinson Partners, formerly First Chicago Venture Capital Group. He stated that Brinson Partners acquires secondary interests in venture capital limited partnerships. In response to a question from Ms. Veverka regarding the current level of venture capital commitments, Mr. Bicker stated that staff completed a study on commitments vs. drawdowns and the Board agreed with the recommendation to continue to invest in new venture capital on an ongoing basis. Mr. Gudorf then stated that the Committee recommends investing 20 percent or up to \$10 million in IAI Venture Partners II. He stated that the SBI invested in Superior Ventures in 1986 and that the new investment is considered to be a follow-on to the Superior Ventures Fund. He stated that half of the fund would be invested in Minnesota and half outside Minnesota in order to ensure participation of other venture capital investors in Minnesota projects. Mr. Hutchinson then moved approval of the Committee recommendations concerning the oil and gas consultant and the five real estate and venture capital investments. Mr. Bohan seconded. The motion was approved.

The meeting was adjourned at 3:35 P.M.

Respectfully submitted,



Howard J. Bicker
Executive Director

Tab A

QUARTERLY REPORT ON OBJECTIVES

BASIC RETIREMENT FUNDS	Status as of June 30, 1990
Market Value	\$7.1 billion
Total Return (Annualized)	
<ul style="list-style-type: none"> ■ Real (10 years) 3 to 5 percentage points over inflation ■ Relative (5 years) for the Total Fund Above composite index return ■ Relative (5 years) for Stocks, Bonds and Cash Above median fund return 	<ul style="list-style-type: none"> 13.0% (nominal) 8.4 percentage points over 13.0% (nominal) equaled the composite index 14.0% (nominal) 1.2 percentage points above
Liquidity	
<ul style="list-style-type: none"> ■ Minimal cash 	<ul style="list-style-type: none"> 0.8% of total fund

POST RETIREMENT FUND	Status as of June 30, 1990
Market Value	\$5.3 billion
Realized Earnings	\$458 million in FY 1990
<ul style="list-style-type: none"> ■ Above 8% per year 	<ul style="list-style-type: none"> nearly 10% in FY 1990
Liquidity	
<ul style="list-style-type: none"> ■ Minimal cash 	<ul style="list-style-type: none"> 5.9% of total fund

FUNDING (Basic + Post Funds)*	Status as of June 30, 1989
Achieve full funding by 2020	
<ul style="list-style-type: none"> ■ Actuarial accrued liability ■ Actuarial value of assets ■ Percent funded 	<ul style="list-style-type: none"> \$12.9 billion \$9.4 billion 73%

* TRA, MSRS, PERA General Plans only. Based on FY89 valuation by State's actuary.
Includes impact of legislation passed during the 1989 Legislative Session.

The executive summary highlights the asset mix, performance standards and investment results for the Basic Retirement Funds and the Post Retirement Fund.

Additional detail on these funds as well as information on other funds managed by the Board can be found in the body of the Quarterly Investment Report.

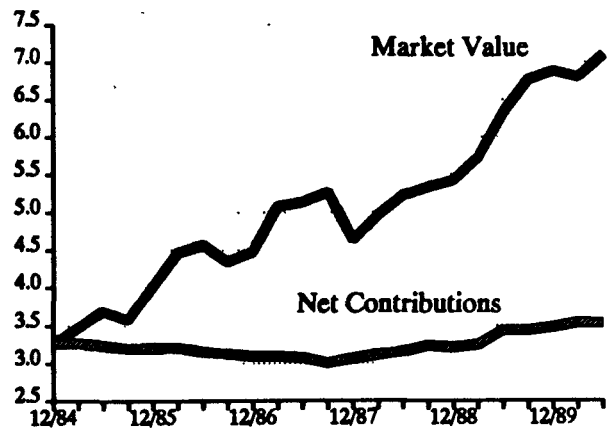
EXECUTIVE SUMMARY

Basic Retirement Funds

Asset Growth

The market value of the Basic Funds increased 4.3% during the second quarter of 1990. The increase was due to fixed income and equity appreciation.

\$ Billions



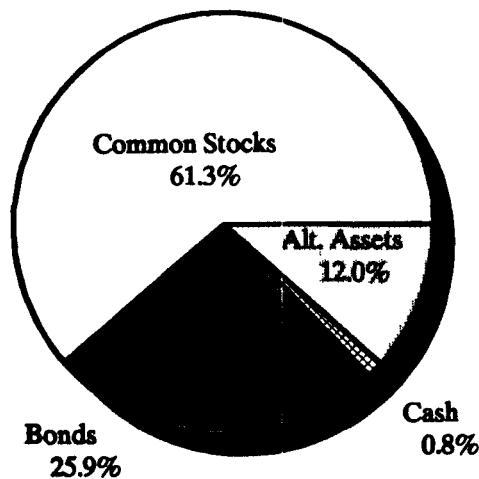
**Asset Growth
During Second Quarter 1990
(Millions)**

Beginning Value	\$6,798
Net Contributions	-5
Investment Return	313
Ending Value	\$7,106

Asset Mix

The asset mix of the Basic Funds is chosen to maximize long term rate of return. This requires a large commitment to common stocks. Other asset classes are used to limit short-run return volatility and to diversify portfolio holdings.

During the quarter there were no significant changes to the asset mix.



**Actual Asset Mix
6/30/90**

	Policy Asset Mix	Actual Mix 6/30/90	Actual Market Value (Millions)
Stocks	60.0%	61.3%	\$4,358
Bonds	24.0	25.9	1,840
Alternative Assets	15.0	12.0	850
Unallocated Cash	1.0	0.8	58
	100.0%	100.0%	\$7,106

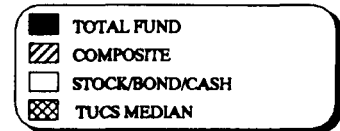
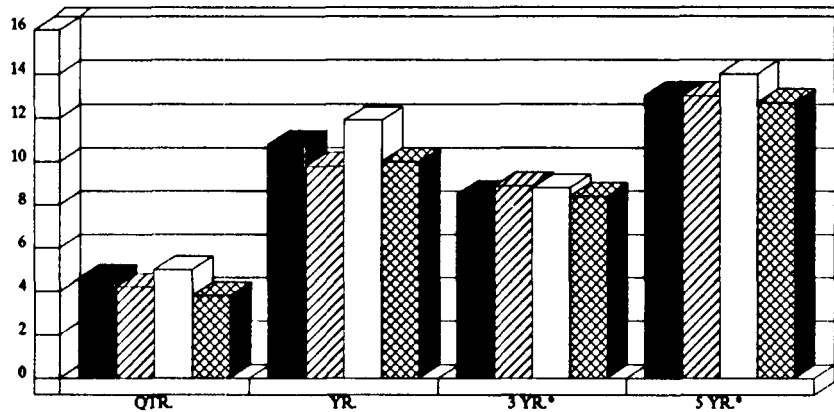
Basic Funds (Con't.)

Total Fund Performance

Both the total fund and total fund without alternative assets exceeded the return on the median fund and the composite index for the quarter and year.

Given its large commitment to common stocks, the Basic Funds can be expected to outperform other balanced pension portfolios during periods of positive stock performance and underperform during periods of negative stock performance.

PERCENT



Period Ending 6/30/90

	Qtr.	Yr.	*(Annualized)	
			3 Yr.	5 Yr.
Total Fund	4.6%	10.8%	8.5%	13.0%
Composite Index **	4.2	9.8	8.9	13.0
Stocks, Bonds and Cash Only	5.0	11.9	8.7	13.9
TUCS Median Balanced Fund***	3.8	10.0	8.4	12.7

** Composite Index is weighted in a manner that reflects the policy asset mix of the Basic Funds.

*** Trust Universe Comparison Service (TUCS) includes returns of over 800 public and private tax-exempt investors

Stock Segment Performance

The Basic Funds' common stock segment exceeded the performance of its target for the latest quarter and year. Details on individual manager stock performance can be found on page 7 of the report.

	Qtr.	Yr.	(Annualized)	
			3 Yr.	5 Yr.
Stock Segment	5.6%	13.0%	8.1%	15.1%
Wilshire 5000	5.5	12.7	8.2	15.5

Bond Segment Performance

The bond segment of the Basic Funds equaled the performance of its target for the latest quarter but trailed for the latest year. Details on individual bond manager performance can be found on page 8 of the report.

	Qtr.	Yr.	(Annualized)	
			3 Yr.	5 Yr.
Bond Segment	3.6%	7.5%	9.1%	10.5%
Salomon Broad Index	3.6	7.7	9.3	10.6

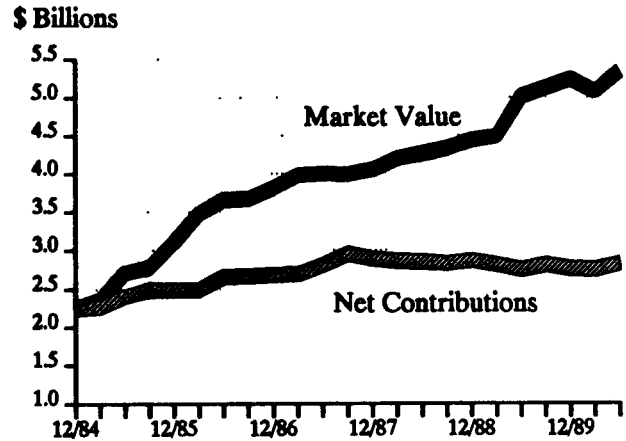
EXECUTIVE SUMMARY

Post Retirement Fund

Asset Growth

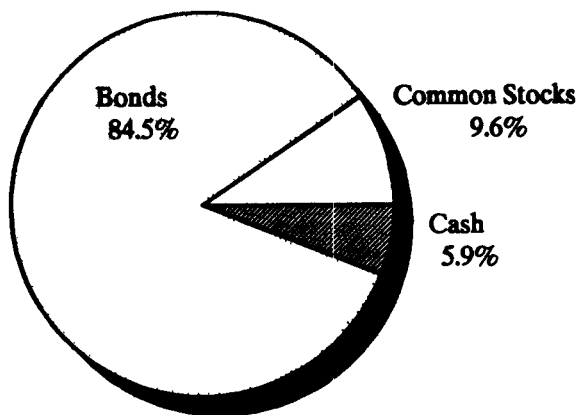
The market value of the Post Fund increased by 5.2% during the second quarter of 1990.

	Asset Growth During Second Quarter 1990 (Millions)
Beginning Value	\$5,073
Net Contributions	77
Investment Return	189
Ending Value	\$5,339



Asset Mix

The asset mix of the Post Retirement fund is chosen to create a sizable, steady stream of income sufficient to pay currently promised benefits. This income stream is created by a large commitment to bonds, primarily through a dedicated bond portfolio. Assets not committed to bonds are invested in cash equivalents or common stocks.



Cash holdings rose during the quarter due to the receipt of semi-annual coupon payments from the dedicated bond portfolio and the receipt of large transfers on the last day of the quarter.

	Actual Market Value (Millions)	Asset Mix 6/30/90
Common Stocks	\$514	9.6%
Bonds	4,512	84.5
Unallocated Cash	313	5.9
	\$5,339	100.0%

Actual Asset Mix
6/30/90

Post Fund (Con't.)

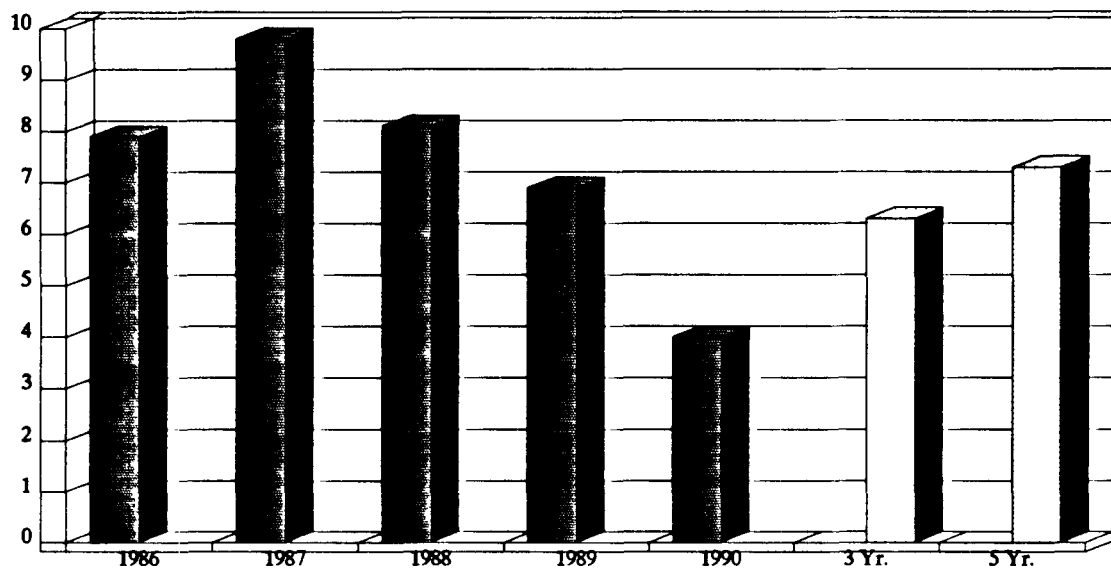
Total Fund Performance

Assets committed to the dedicated bond portfolio ensure that all existing promised benefits will be paid to current retirees. Excess investment earnings on Post Fund assets are used to finance permanent lifetime benefit increases for retirees.

Benefit increases are based upon earnings during a fiscal year and are effective at the start of the following calendar year. Benefit increases generated for the last five years are shown below.

Benefit Increases

Percent



Calendar Year

	1986	1987	1988	1989	1990	(Annualized)	
Benefit Increases	7.9%	9.8%	8.1%	6.9%	4.0%	3 Yrs.	5 Yrs.
						6.3%	7.3%

Benefit increases are intended to compensate, to some degree, for the effect of inflation.

As measured by the Consumer Price Index (CPI), inflation increased by 3.7% on an annualized basis over the last five years (calendar 1985-1989).

Stock Segment Performance

The stock segment of the Post Fund trailed its benchmark for the latest quarter and year.

	Period Ending 6/30/90			
	Qtr.	Yr.	(Annualized)	
			3 Yr.	5 Yr.
Stock Segment	1.2%	2.9%	6.5%	10.8%
Post Fund Benchmark	2.6	5.7	6.5	N.A.

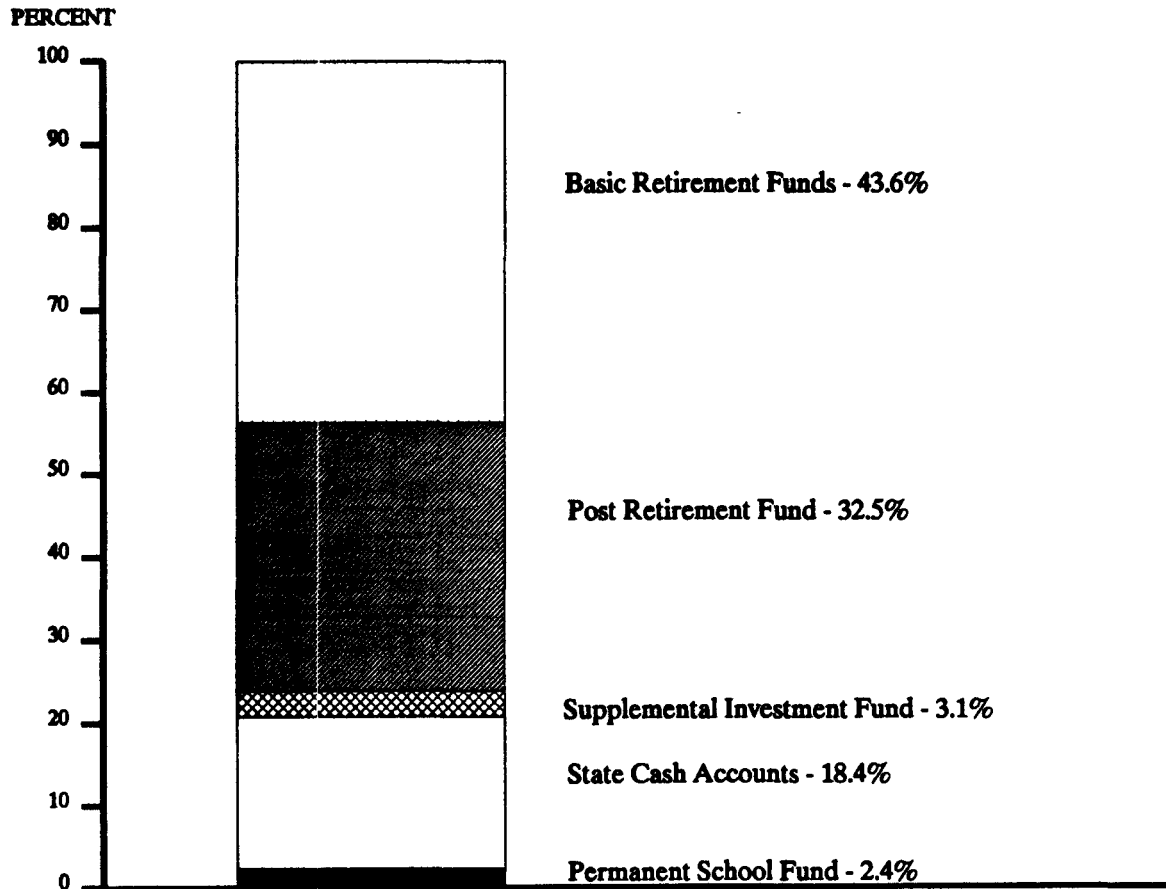
Bond Segment Performance

At the close of the quarter, the dedicated bond portfolio had a current yield of 7.83% and average duration of 7.75 years. The market value of the dedicated bond portfolio was \$4.4 billion at the end of the quarter.

The dedicated bond portfolio is designed such that cash inflows from portfolio income and principal payments match required cash outflows to retirees. Thus, total return is not a relevant performance measure for the portfolio. Nevertheless, the bond segment provided a 4.1% return for the quarter and a 5.4% return for the year. This is consistent with the design of the dedicated bond portfolio.

EXECUTIVE SUMMARY

Funds Under Management



	6/30/90 Market Value (Billions)
Basic Retirement Funds	\$7.1
Post Retirement Fund	5.3
Supplemental Investment Fund	0.5
State Cash Accounts	3.0
Permanent School Fund	0.4
Total	\$16.3

MINNESOTA STATE BOARD OF INVESTMENT

QUARTERLY INVESTMENT REPORT

Second Quarter 1990

(April 1, 1990 - June 30, 1990)

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FINANCIAL MARKETS REVIEW

STOCK MARKET

Overall, stock prices increased during the second quarter, however, the market was fairly volatile. In April, the market declined due to the S&L crisis and poor housing and car sales. During May, the market rose substantially due to improving economic indicators and an anticipated easing by the Federal Reserve of its monetary policy. During June, the market remained relatively flat as it assimilated the rapid gains that occurred in May.

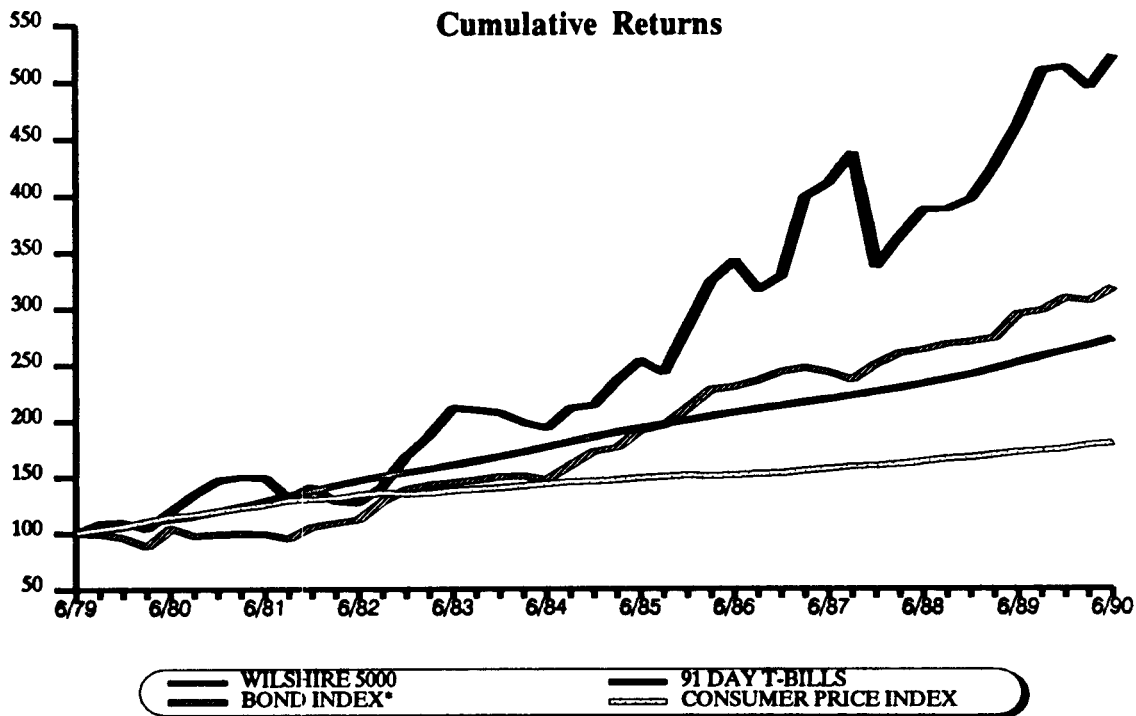
The Wilshire 5000 increased 5.5% for the quarter. Price performance among the different sectors varied widely during the quarter. Consumer non-durables and technology were the best performing sectors with a return of 13.2% and 9.2% respectively. The worst performing sectors were the transportation and utility sectors with a return of -1.9% and -0.8% respectively. The Wilshire 5000 gained 12.7% during the latest year.

BOND MARKET

Similar to the stock market, the bond market increased during the second quarter. As with the stock market, the bond market decreased in April due to the S&L crisis and poor housing and car sales. However, unlike the stock market, the bond market had material increases in both May and June. Improving inflationary indicators and an anticipated easing by the Federal Reserve of its monetary policy caused the steady increase over the last two months.

Overall, the Salomon Brothers Broad Investment Grade (BIG) Index increased 3.6% for the quarter. Corporate securities were the best performing sector with a gain of 3.8% and Treasury issues provided the lowest return of 3.4%. The Salomon BIG Index gained 7.7% for the latest year.

PERFORMANCE OF CAPITAL MARKETS



* Merrill Lynch Master Index through 12/79; Salomon Broad Investment Grade Bond Index thereafter

FINANCIAL MARKETS REVIEW**REAL ESTATE**

Currently, the real estate market faces oversupply and slow demand. These factors are most apparent in second tier office properties, small shopping centers and properties located in the Southwest. The stronger sectors of the real estate market include warehouse and distribution facilities and larger retail centers. In the near term, a significant reduction in real estate lending, resulting from savings and loans and banks reducing real estate lending, will slow the pace of new development and existing project refinancings.

VENTURE CAPITAL

There continues to be a heavy flow of venture capital offerings. However, these funds are taking longer to raise less money than in the past.

A combination of factors has contributed to the decline in funding levels. First, funds initiated within the last five years have provided somewhat disappointing returns to date. Second, strong performance from stocks and bonds has made venture capital returns less competitive. Finally, funding has been influenced by the conditions of the public market, which, up until a flurry of activity earlier this year, has not generally been receptive to new issues.

RESOURCE FUNDS

Following the invasion of Kuwait by Iraq after the close of the quarter, spot prices of West Texas Intermediate oil jumped to as high as \$29.00 per barrel in August. Spot prices for West Texas Intermediate oil traded as low as \$15.06 in June.

The current tensions in the Middle East come at a time when U.S. dependency on foreign crude is at an all time high. In the first six months of this year, U.S. dependence on crude imports accounted for almost half of the nation's oil supply. The previous high mark for a six-month span occurred in the first half of 1977.

BASIC RETIREMENT FUNDS

Investment Objectives

The Basic Retirement Funds are composed of the retirement assets for currently working participants in the statewide retirement funds.

Based upon the Basic Funds' adequate funding levels and participant demographics, its investment time horizon is quite long. This extended time horizon permits the Board to take an aggressive, high expected return investment policy which incorporates a sizable equity component.

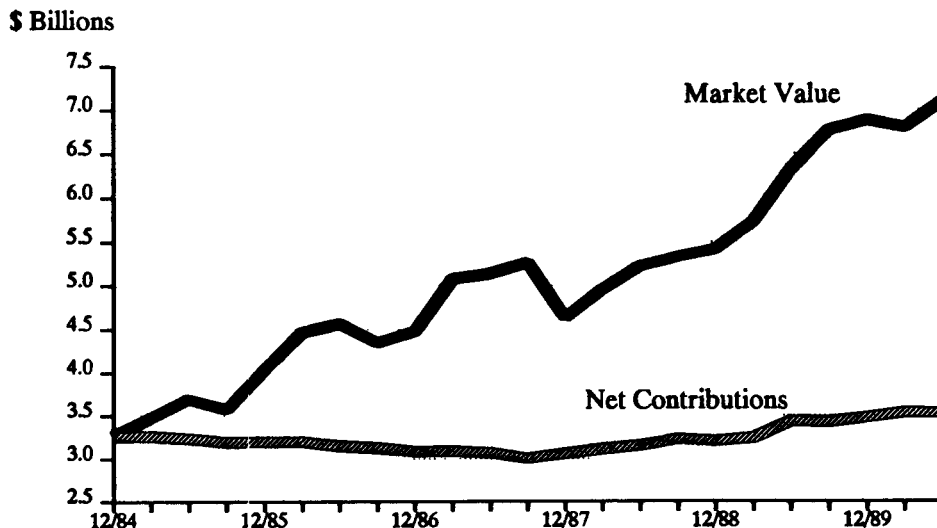
The Board has established three return objectives for the Basic Funds:

- The total fund should provide real rates of return that are 3-5 percentage points greater than the rate of inflation over moving 10 year periods.
- Stocks, bonds and cash should outperform the median fund from a universe of public and private funds with a balanced asset mix over moving 5 year periods.
- The total fund should outperform a composite index weighted in a manner that reflects the long term asset allocation of the Basic Funds over moving 5 year periods.

Asset Growth

The market value of the Basic Retirement Funds' assets increased 4.3% during the second quarter of 1990. The increase was due to fixed income and equity appreciation.

Alternative assets also had a positive return for the quarter.



	In Millions						
	12/85	12/86	12/87	12/88	12/89	3/90	6/90
Beginning Value	\$3,265	\$4,030	\$4,474	\$4,628	\$5,420	\$6,875	\$6,798
Net Contributions	-62	-113	-26	146	269	55	-5
Investment Return	827	557	180	646	1,186	-132	313
Ending Value	\$4,030	\$4,474	\$4,628	\$5,420	\$6,875	\$6,798	\$7,106

BASIC RETIREMENT FUNDS

Total Fund Performance vs. Standards

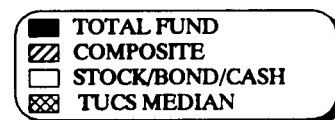
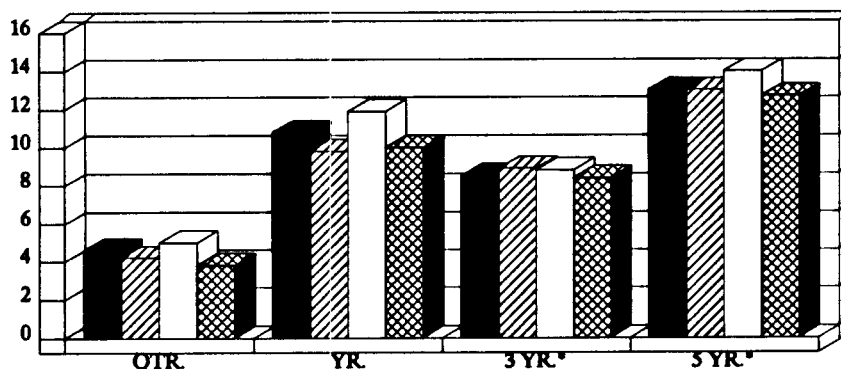
The Basic Funds' long-term rate of return performance is evaluated relative to two specific benchmarks:

- **Composite Index.** The returns provided by the total portfolio are expected to exceed those derived from a composite of market indices, weighted in the same proportion as the Basic Funds' policy asset allocation. As of 7/1/89, the composite index is weighted: 60% Wilshire 5000 Stock Index, 24% Salomon Broad Bond Index, 10% Real Estate Funds, 2.5% Venture Capital Funds, 2.5% Resource Funds, and 1% 91 Day T-Bills.
- **Median Tax-Exempt Fund.** Stock, bond and cash assets are expected to outperform the median return produced by a representative sample of other public and private tax-exempt balanced funds. The sample universe used by the Board is the Wilshire Associates Trust Universe Comparison Service (TUCS).

The long term asset allocation of the Basic Funds is based on the superior performance of common stocks over the history of the capital markets. The asset mix is designed to add value to the Basic Funds' over their long-term investment time horizon. In the short-run, the Basic Funds can be expected to outperform the median balanced portfolio during periods of positive relative stock performance and underperform during periods of negative stock performance.

The Basic Funds total portfolio exceeded its composite index for the latest quarter and year. Because of the Basic Funds sizable stock allocation and relatively good performance of the stock market, the Basic Funds' exceeded the median balanced fund for the year. Excluding alternative assets, the Basic Funds ranked in the upper third (29th percentile) of the TUCS universe for the quarter. In addition, it ranked in the top third (31st percentile) for the latest year and the last five years (33rd percentile).

PERCENT



	Period Ending 6/30/90			
	Qtr.	Yr.	3 Yr.	5 Yr.
Total Fund	4.6%	10.8%	8.5%	13.0%
Composite Index	4.2	9.8	8.9	13.0
Stocks, Bonds and Cash Only	5.0	11.9	8.7	13.9
TUCS Median Balanced Fund	3.8	10.0	8.4	12.7

BASIC RETIREMENT FUNDS

Segment Performance vs. Standards

Stock Segment

The Basic Funds' common stock segment exceeded its performance target for the latest quarter and year.

	Qtr.	Yr.	Annualized	
			3 Yrs.	5 Yrs.
Stock Segment	5.6%	13.0%	8.1%	15.1%
Wilshire 5000	5.5	12.7	8.2	15.5

Bond Segment

The bond segment of the Basic Funds equaled the performance of its target for the latest quarter but trailed for the latest year.

	Qtr.	Yr.	Annualized	
			3 Yrs.	5 Yrs.
Bond Segment	3.6%	7.5%	9.1%	10.5%
Salomon Bond Index	3.6	7.7	9.3	10.6

Real Estate Segment

The real estate segment of the Basic Funds exceeded its target for the latest quarter and year.

The Wilshire Real Estate Index contains returns of 30 commingled funds. The index does not include returns from funds that are less than 3 years old or are not fully invested.

	Qtr.	Yr.	Annualized	
			3 Yrs.	5 Yrs.
Real Estate Segment	1.6%	5.9%	7.2%	7.4%
Real Estate Index	1.3	3.3	6.3	7.1
Inflation	0.9	4.7	4.6	3.8

Venture Capital and Resource Funds

Comprehensive data on returns provided by the resource and venture capital markets are not available at this time. Actual returns from these assets are shown in the table.

The SBI began its venture capital and resource programs in the mid-1980's. Current returns reflect the relative immaturity of the investments.

	Qtr.	Yr.	Annualized	
			3 Yrs.	5 Yrs.
Venture Capital Segment	-0.2%	1.4%	11.2%	7.2%
Resource Fund Segment	-2.2	-13.7	1.2	-2.3

BASIC RETIREMENT FUNDS

Stock Manager Performance vs. Benchmarks

Common stock manager returns are evaluated against the performance of customized indices constructed to represent the managers' specific investment approaches. These custom indices are commonly referred to as "benchmark portfolios." The benchmark portfolios take into account the equity market forces that at times favorably or unfavorably impact certain investment styles. Thus, benchmark portfolios are the appropriate targets against which to judge the managers' performances.

As a group, the active and passive common stock managers exceeded the performance of their aggregate benchmark for the latest quarter and year.

Individually, six out of the eleven managers met or exceeded their benchmark. A comprehensive analysis of the individual managers' performance is included in this quarter's Equity Manager Committee Report.

Manager performance relative to benchmarks is evaluated on a quarterly basis by the Equity Manager Committee of the Investment Advisory Council.

	Percent of Segment 6/30/90	Market Value 6/30/90 (Thousands)	Quarter Ending 6/30/90		Year Ending 6/30/90		(Annualized) 5 Yrs. Ending 6/30/90	
			Actual	Bmrk	Actual	Bmrk	Actual	Bmrk
Active Managers								
Alliance	9.8%	\$429,832	9.7%	8.5%	23.6%	14.8%	21.1%	13.2%
Concord	2.6	111,982	5.8	3.7	9.4	7.2		
Forstmann	4.5	194,863	2.9	5.0	7.6	10.5	13.7	12.6
Franklin	2.6	113,025	2.4	4.1	7.5	5.4		
GeoCapital	1.4	61,258	6.0	6.1				
IDS	4.3	186,522	7.6	5.5	24.2	11.3	16.7	15.3
IAI	2.2	94,835	5.8	5.8	15.7	14.5	14.1	15.8
Lieber & Co.	3.2	138,195	6.2	2.1	5.2	2.2	12.1	10.6
Rosenberg	2.6	116,107	3.7	4.9	11.4	11.3		
Sasco	2.4	106,585	-1.4	1.3	3.4	6.4		
Waddell & Reed	4.2	182,052	5.8	3.9	15.0	8.9	14.5	12.8
Aggregate Active	39.8%	\$1,735,256	5.8%		14.2%		15.7%	
Passive Manager								
Wilshire Associates	60.2%	\$2,622,664	5.4%	5.4%	12.3%	12.7%	15.4	15.5
Aggregate Passive	60.2%	\$2,622,664	5.4%		12.3%		15.4%	
Total Stock Segment	100.0%	\$4,357,920	5.6%	5.4%	13.0%	11.7%	15.1%	15.0%
Wilshire 5000 Index			5.5%		12.7%		15.5	

Notes: Total segment and aggregate active performance numbers include returns of any managers retained during the time periods shown but subsequently terminated by the Board.

GeoCapital retained effective 4/90. Concord, Franklin, Rosenberg, Sasco retained 4/89.

BASIC RETIREMENT FUNDS

Bond Manager Performance vs. Benchmarks

Bond manager returns are evaluated against the performance of customized indices constructed to represent the managers' specific investment approaches. These custom indices are commonly referred to as "benchmark portfolios." The benchmark portfolios take into account the bond market forces that at times favorably or unfavorably impact certain investment styles. Thus, benchmark portfolios are the appropriate targets against which to judge the managers' performances.

As a group, the active and passive bond managers equaled the performance of their aggregate benchmark for the latest quarter but trailed for the latest year.

Individually, four out of the seven bond managers equaled or exceeded their benchmark. A comprehensive analysis of the individual managers' performance is included in this quarter's Fixed Income Manager Committee Report.

Manager performance relative to benchmarks is evaluated on a quarterly basis by the Fixed Income Manager Committee of the Investment Advisory Council.

	Percent of Segment 6/30/90	Market Value 6/30/90 (Thousands)	Quarter Ending 6/30/90 Actual Bmrk		Year Ending 6/30/90 Actual Bmrk		(Annualized) 5 Yrs. Ending 6/30/90 Actual Bmrk	
Active Managers								
IAI	6.1%	\$112,039	4.0%	3.7%	6.0%	7.3%	9.7%	10.6%
Lehman	6.8	124,660	3.3	3.4	7.2	7.8	9.8	10.1
Miller Anderson	9.8	180,773	3.8	3.6	7.0	7.7	11.3	10.6
Morgan Stanley	6.4	118,496	3.4	3.6	6.7	8.5	9.9	10.2
Western Asset	15.1	278,015	3.7	3.7	7.8	8.1	11.5	10.6
Aggregate Active	44.2%	\$813,983	3.7%		7.1%		10.7%	
Semi-Passive Managers								
Fidelity Management	27.9%	\$513,552	3.6%	3.6%	7.9%	7.7%		
Lincoln Capital	27.9	512,861	3.5	3.6	7.6	7.7		
Aggregate Passive	55.8%	\$1,026,413	3.5%		7.8%			
Total Bond Segment	100.0%	\$1,840,396	3.6%	3.6%	7.5%	7.7%	10.5%	
Salomon Broad Index			3.6%		7.7%		10.6%	

Notes: Total segment and aggregate active performance numbers include returns of any managers retained during the time periods shown but subsequently terminated by the Board.

Fidelity, Lincoln retained 7/88. Morgan terminated 6/90.

POST RETIREMENT FUND

Investment Objectives

The Post Retirement Investment Fund contains the pension assets of retired public employees covered by statewide retirement plans.

Upon the employees' retirement, sums of money sufficient to finance fixed monthly annuities are transferred from accumulation pools in the Basic Funds to the Post Fund. In order to support promised benefits, the Post Fund must "earn" at least 5% on its invested assets each year. If the Post Fund exceeds this earnings rate, excess earnings are used to finance permanent benefit increases for eligible retirees.

Unrealized capital gains (or losses) are excluded from the statutory definition of earnings. For this reason the Post Fund is not designed to maximize long-term total rates of return.

The Board has established two earnings objectives for the Post Fund:

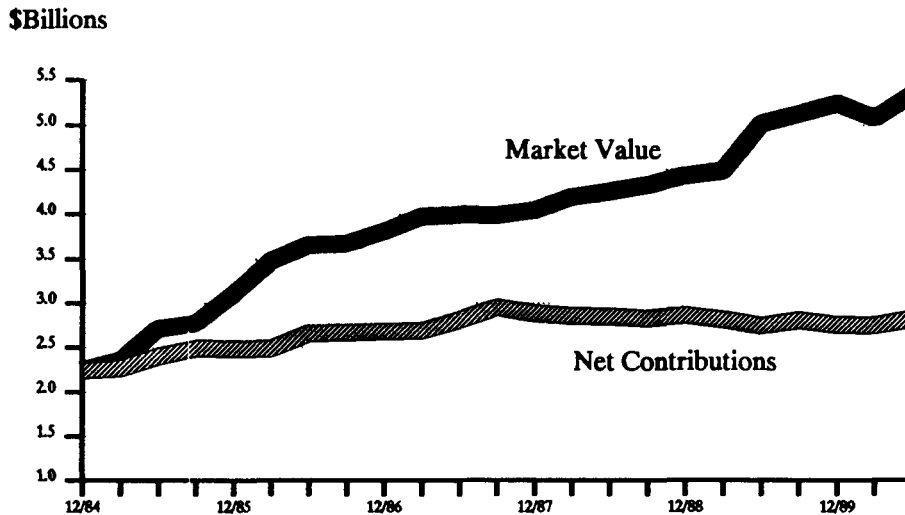
- generate 5% realized earnings to maintain current benefits.
- generate at least 3% additional realized earnings to provide benefit increases.

The Post Fund is not oriented toward maximizing long-term total rate of return. Rather, the SBI attempts to generate a high, consistent stream of earnings for the Post Fund that will maintain current benefits, as well as produce benefit increases over time.

Asset Growth

The market value of the Post Fund increased by 5.2% during the second quarter of 1990. Asset growth increased

due to positive investment returns for both the fixed income and equity portfolios.



	In Millions						
	12/85	12/86	12/87	12/88	12/89	3/90	6/90
Beginning Value	\$2,246	\$3,107	\$3,808	\$4,047	\$4,434	\$5,238	\$5,073
Net Contributions		239	199	207	25	-11	77
Investment Return	622	502	32	414	779	-154	189
Ending Value	\$3,107	\$3,808	\$4,047	\$4,434	\$5,238	\$5,073	\$5,339

POST RETIREMENT FUND

Asset Mix

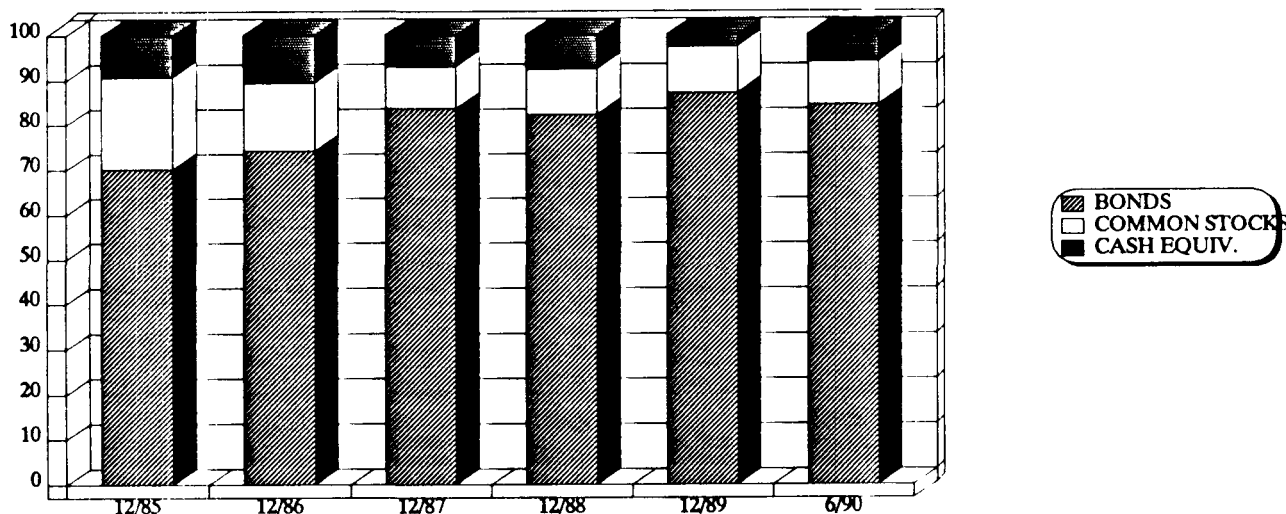
The Board has designed the asset mix of the Post Fund to generate the sizable stable earnings stream necessary to finance monthly payments to retirees.

Assets not committed to the dedicated bond portfolio generally are invested in common stocks and cash equivalents.

The SBI invests the majority of the Post Fund's assets in a dedicated bond portfolio. A dedicated bond portfolio is a collection of various maturity, high-quality bonds which generate cash flows from income and principal payments that match a specific stream of liabilities.

During the quarter there were no significant changes to the asset mix. Cash holdings are higher than normal due to receipt of semi-annual coupon payments and large contribution inflow on the last day of the quarter.

PERCENT



	Last Five Years					Latest Qtrs.	
	12/85	12/86	12/87	12/88	12/89	3/90	6/90
Bonds	70.2%	74.2%	83.7%	82.3%	87.1%	84.8%	84.5%
Stocks	20.5	15.1	9.3	10.1	10.2	10.1	9.6
Unallocated Cash	9.3	10.7	7.0	7.6	2.7	5.1	5.9
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

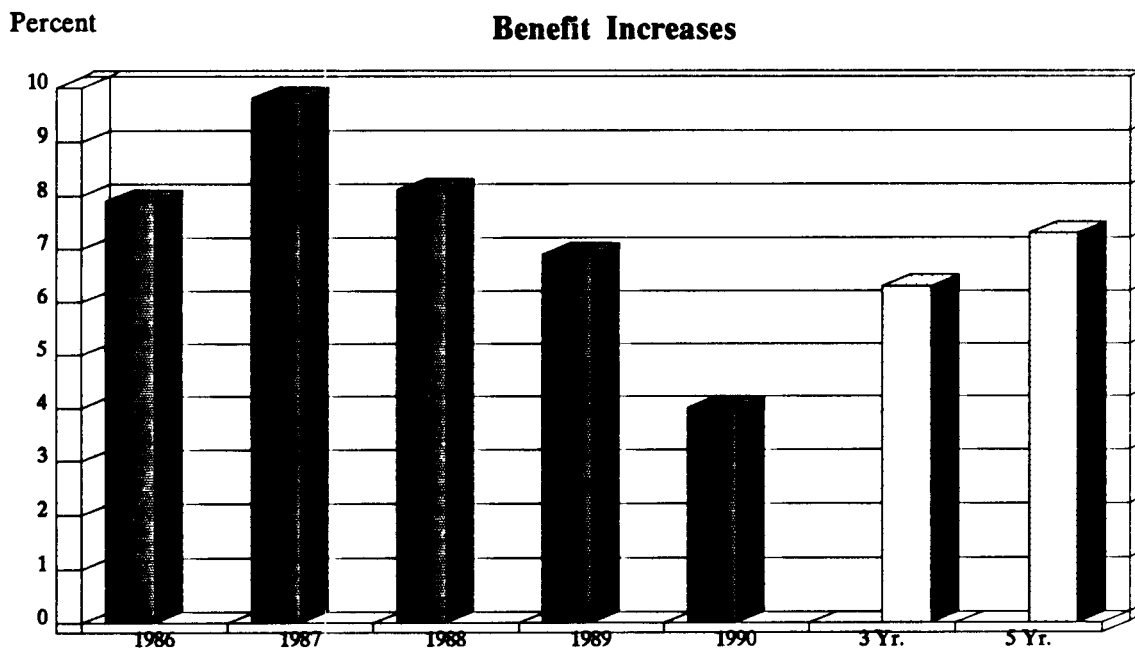
POST RETIREMENT FUND

Total Fund Performance

The ability of the Post Fund to maintain current benefit levels and provide future benefit increases depends upon its earnings. State statutes define earnings for the Post Fund as interest and dividend income as well as realized equity and fixed income capital gains (or losses). Unrealized capital gains (or losses) have no direct impact on the benefits paid out to retirees. Unrealized capital gains (or losses) are excluded from defined earnings in order to make benefit payments largely insensitive to near-term fluctuations in the capital markets.

Assets committed to the dedicated bond portfolio ensure that all existing promised benefits will be paid to current retirees. Excess investment earnings on the Post Fund assets are used to finance permanent lifetime benefit increases for retirees.

Benefit increases are based upon earnings during a fiscal year and are effective at the start of the following calendar year. Benefit increases generated over the last five years are shown below.



	1986	1987	1988	1989	1990	(Annualized)	
Benefit Increases	7.9%	9.8%	8.1%	6.9%	4.0%	3 Yrs. 6.3%	5 Yrs. 7.3%

Benefit increases are intended to compensate, to some degree, for the effect of inflation.

As measured by the Consumer Price Index (CPI), inflation increased by 3.7% on an annualized basis over the last five years (calendar 1985-1989).

POST RETIREMENT FUND

Segment Performance

Stock Segment Performance

The stock segment of the Post Fund trailed its benchmark for the latest quarter and year.

	Period Ending 6/30/90			
	Qtr.	Yr.	(Annualized)	
			3 Yrs.	5 Yrs.
Stock Segment	1.2%	2.9%	6.5%	10.8%
Post Fund Benchmark	2.6	5.7	6.5	N.A.

Bond Segment Performance

The composition of the Post Retirement Investment Fund's dedicated bond portfolio remained essentially unchanged during the first quarter.

The Post Fund's bond portfolio provided a 4.1% total rate of return for the quarter and a 5.4% return for the year. This performance is consistent with the bond portfolio's design. The Post Fund's dedicated bond portfolio is structured so that portfolio income and maturities match the Fund's liability stream. As a result, the duration of the dedicated bond portfolio exceeds that of the bond market. Consequently, on a total return basis, the portfolio can be expected to underperform the bond market in down periods and outperform the market in up periods.

Dedicated Bond Portfolio Statistics 6/30/90

Value at Market	\$ 4,425,192,260
Value at Cost	4,135,028,828
Average Coupon	5.58%
Current Yield	7.83
Yield to Maturity	8.92
Current Yield at Cost	8.38
Time to Maturity	15.36 Years
Average Duration	7.75 Years
Average Quality Rating	AAA
Number of Issues	436

SUPPLEMENTAL INVESTMENT FUND

The Minnesota Supplemental Investment Fund is a multi-purpose investment program that offers a range of investment options to state and local public employees. The different participating groups use the Fund for a variety of purposes:

- It functions as the investment manager for all assets of the Unclassified Employees Retirement Plan and the Public Employees Defined Contribution Plan.
- It acts as the investment manager for all assets of the supplemental retirement programs for state university and community college teachers and for Hennepin County Employees.
- It is one investment vehicle offered to public employees as part of the state's Deferred Compensation Plan.
- It serves as an external money manager for a portion of some local police and firefighter retirement plans.

A wide diversity of investment goals exists among the Fund's participants. In order to meet those needs, the Fund has been structured much like a "family of mutual funds." Participants may allocate their investments among one or more accounts that are appropriate for their needs, within the statutory requirements and rules established by the participating organizations. Participation in the Fund is accomplished through the purchase or sale of shares in each account.

The investment returns shown in this report are calculated using a time-weighted rate of return formula. These returns may differ slightly from calculations based on share values, due to the movement of cash flows in and out of the accounts.

On June 30, 1990 the market value of the entire fund was \$477 million.

Investment Options

Income Share Account - an actively managed, balanced portfolio utilizing both common stocks and bonds.

Growth Share Account - an actively managed, all common stock portfolio.

Common Stock Index Account - a passively managed, all common stock portfolio designed to track the performance of the entire stock market.

Bond Market Account - an actively managed, all bond portfolio.

Money Market Account - a portfolio utilizing short term, liquid debt securities.

Guaranteed Return Account - an option utilizing guaranteed investment contracts (GIC's), which offer a fixed rate of return for a specified period of time.

SUPPLEMENTAL INVESTMENT FUND

Income Share Account

Investment Objective

The primary investment objective of the Income Share Account is similar to that of the Basic Retirement Funds. The Account seeks to maximize long-term real rates of return, while limiting short-run portfolio return volatility.

Asset Mix

The Income Share Account is invested in a balanced portfolio of common stocks and bonds. Common stocks provide the potential for significant capital appreciation, while bonds act as a deflation hedge and provide portfolio diversification.

Investment Management

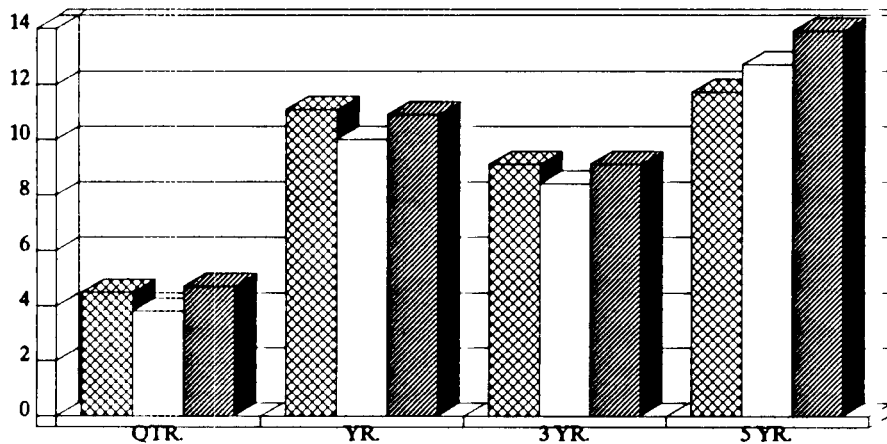
The Account combines internal and external management. Internal investment staff manage the entire fixed income segment. Currently, the entire stock segment is managed by Wilshire Associates as part of a passively managed index fund designed to track the Wilshire 5000. Prior to April, 1988, a significant portion of the stock segment was actively managed.

Market Value

On June 30, 1990 the market value of the Income Share Account was \$245 million.

	Target	Actual
Stocks	60.0%	58.9%
Bonds	35.0	32.3
Unallocated Cash	5.0	8.8
	<u>100.0%</u>	<u>100.0%</u>

PERCENT



Period Ending 6/30/90

	Annualized			
	Qtr.	Yr.	3 Yr.	5 Yr.
Total Account	4.5%	11.1%	9.1%	11.7%
Median Fund*	3.8	10.0	8.4	12.7
Composite**	4.7	11.0	9.1	13.8
Equity Segment	5.4	12.3	8.1	12.4
Wilshire 5000	5.5	12.7	8.2	15.5
Bond Segment	3.6	7.8	9.6	10.5
Salomon Bond Index	3.6	7.7	9.3	10.6

* TUCS Median Balanced Portfolio

** 60/35/5 Wilshire 5000/Salomon Broad Bond Index/T-Bills Composite

SUPPLEMENTAL INVESTMENT FUND

Growth Share Account

Investment Objective

The Growth Share Account's investment objective is to generate above-average returns from capital appreciation on common stocks.

Asset Mix

The Growth Share Account is invested almost entirely in common stocks. Generally, the small cash equivalents component represents the normal cash reserves held by the Account as a result of net contributions not yet allocated to stocks.

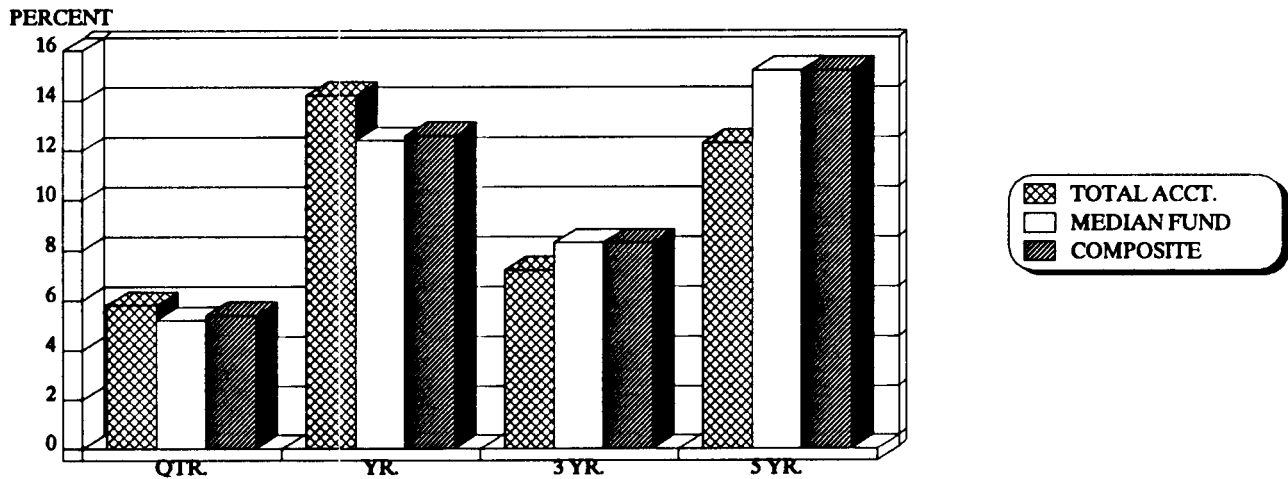
Investment Management

Currently, the entire Account is managed by the same group of active external stock managers utilized by the Basic Retirement Funds. (See page 7 for performance results for these managers.) Prior to April, 1988, other active managers controlled a substantial portion of the account.

Market Value

On June 30, 1990 the market value of the Growth Share Account was \$74 million.

	Target	Actual
Stocks	95.0%	100.0%
Unallocated Cash	5.0	0.0
	100.0%	100.0%



	Period Ending 6/30/90			
	Qtr.	Yr.	3 Yr.	5 Yr.
Total Account	5.8%	14.2%	7.2%	12.3%
Median Fund*	5.2	12.4	8.3	15.2
Composite**	5.3	12.6	8.3	15.2
Equity Segment	5.8	13.9	7.2	12.4
Wilshire 5000	5.5	12.7	8.2	15.5

Dec 10/90

* TUCS Median Managed Equity Portfolio

** 95/5 Wilshire 5000/T-Bills Composite

SUPPLEMENTAL INVESTMENT FUND

Common Stock Index Account

Investment Objective and Asset Mix

The investment objective of the Common Stock Index Account is to generate returns that match those of the common stock market. The Account is designed to track the performance of the Wilshire 5000, a broad-based equity market indicator.

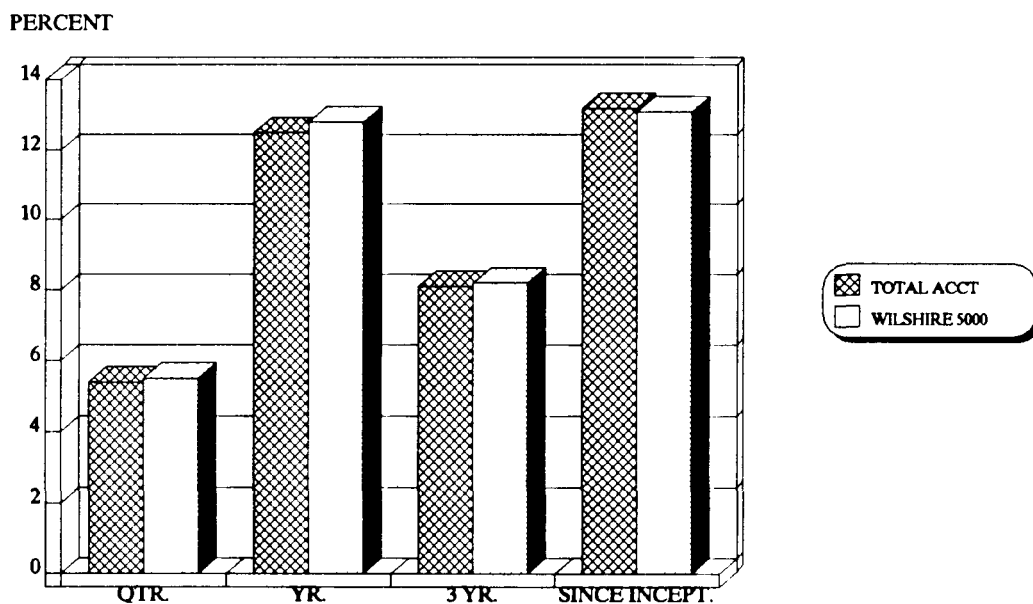
The Account is invested 100% in common stocks.

Investment Management

The entire Account is managed by Wilshire Associates as part of a passively managed index fund.

Market Value

On June 30, 1990 the market value of the Common Stock Index Account was \$10 million.



Period Ending 6/30/90

	Qtr.	Yr.	3 Yrs. Annualized	Since Inception Annualized*
Total Account	5.4%	12.5%	8.1%	13.2%
Wilshire 5000	5.5	12.7	8.2	13.1

* The Common Stock Index Account was added to the Supplemental Fund in July 1986.

SUPPLEMENTAL INVESTMENT FUND

Bond Market Account

Investment Objective

The investment objective of the Bond Market Account is to earn a high rate of return by investing in fixed income securities.

Investment Management

The entire Account is managed by the same group of active external bond managers utilized by the Basic Retirement Funds. (See page 8 for performance results for these managers.)

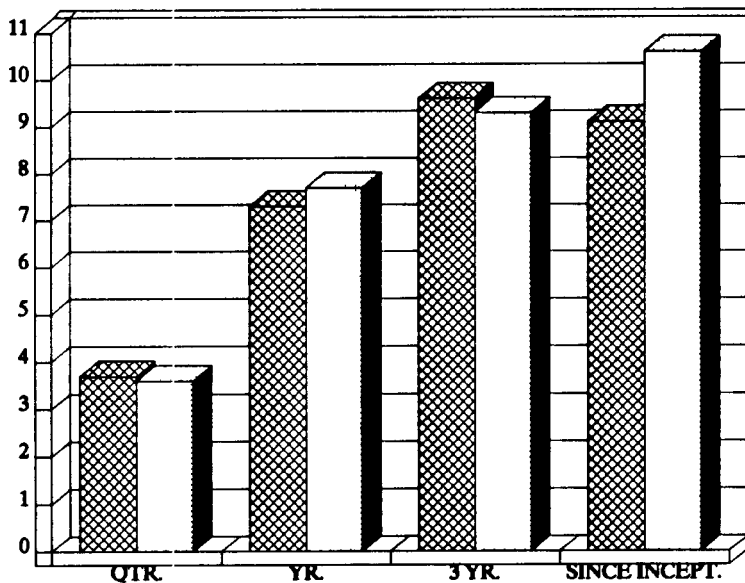
Asset Mix

The Bond Market Account invests primarily in high-quality, government and corporate bonds that have intermediate to long-term maturities, usually 3 to 20 years.

Market Value

On June 30, 1990 the market value of the Bond Market Account was \$6 million.

PERCENT



Period Ending 6/30/90

	Qtr.	Yr.	3 Yrs. Annualized	Since Inception Annualized*
Total Account	3.7%	7.3%	9.6%	9.1%
Salomon Broad	3.6	7.7	9.3	10.6

* The Bond Market Account was added to the Supplemental Fund in July 1986.

SUPPLEMENTAL INVESTMENT FUND

Money Market Account

Investment Objective

The investment objective of the Money Market Account is to purchase short-term, liquid fixed income investments that pay interest at rates competitive with those available in the money markets.

Asset Mix

The Money Market Account is invested entirely in high quality short-term investments such as U.S. Treasury Bills, bank certificates of deposit, repurchase agreements, and high grade commercial paper. The average maturity of these investments is 30 to 60 days.

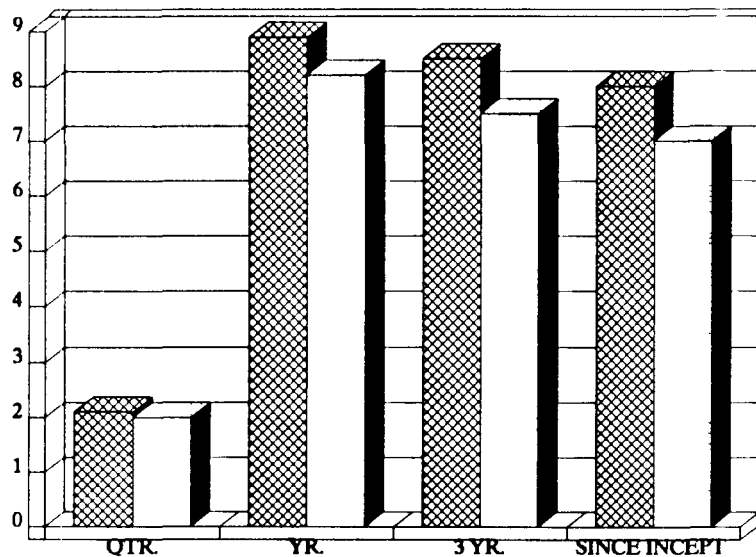
Investment Management

The Money Market Account is managed solely by State Street Bank and Trust Company. State Street manages a major portion of the Board's cash reserves.

Market Value

On June 30, 1990 the market value of the Money Market Account was \$82 million.

PERCENT



Period Ending 6/30/90

	Qtr.	Yr.	3 Yrs. Annualized	Since Inception Annualized*
Total Account	2.1%	8.9%	8.5%	8.0%
91 Day T-Bills	2.0	8.2	7.5	7.0

* The Money Market Account was added to the Supplemental Fund in July 1986.

SUPPLEMENTAL INVESTMENT FUND**Guaranteed Return Account****Investment Objectives**

The investment objectives of the Guaranteed Return Account are to protect investors from any loss of their original investment and to provide a fixed rate of return over a three year period.

Asset Mix

The Guaranteed Return Account is invested in guaranteed investment contracts (GIC's) offered by major U.S. insurance companies and banks.

Investment Management

Annually, the Board accepts bids from banks and insurance companies that meet the financial quality criteria defined by State statute. Generally, the insurance company or bank offering the highest three year GIC interest rate is awarded the contract. That interest rate is then offered to participants who make contributions to the Guaranteed Return Account over the following twelve months.

Market Value

On June 30, 1990 the market value of the Guaranteed Return Account was \$60 million.

Contract Period	Annual Effective Interest Rate	Manager
Nov. 1, 1987 - Oct. 31, 1990	8.45%	Principal Mutual Life
Nov. 1, 1988 - Oct. 31, 1991	9.01%	Mutual of America
Nov. 1, 1989 - Oct. 31, 1992	8.40%	John Hancock

PERMANENT SCHOOL FUND

Investment Objectives

The SBI invests the Permanent School Fund to produce a high, consistent level of income that will assist in offsetting state expenditures on school aids.

The Permanent School fund's investment objectives are influenced by the restrictive legal provisions under which its investments must be managed. These provisions require that the Permanent School Fund's principal remain inviolate. Further, any net realized equity and fixed income capital gains must be added to principal. Moreover, if the Permanent School Fund realizes net capital losses, these losses must be offset against interest and dividend income before such income can be distributed. Finally, all interest and dividend income must be distributed in the year in which it is earned.

These legal provisions limit the investment time horizon over which the Permanent School Fund is managed. Long-run growth in its assets is difficult to achieve without seriously reducing current spendable income and exposing the spendable income stream to unacceptable volatility. The SBI, therefore, invests the Permanent School Fund's assets to produce the maximum amount of current income, within the constraint of maintaining adequate portfolio quality.

Asset Mix

The asset mix of the Permanent School Fund was essentially unchanged during the second quarter. The Permanent School fund continues to hold only fixed income securities. Under current legal limitations, common stocks are not appropriate vehicles for the Fund.

	Target	Actual
Bonds	95.0%	95.2%
Unallocated Cash	5.0	4.8
Total	100.0%	100.0%

Investment Management

The entire fund is managed by the SBI investment staff.

Asset Growth

The market value of the Permanent School Fund's assets increased 4.3% during the second quarter. The increase in assets was due primarily to an increase in bond prices.

**Asset Growth
During Second Quarter 1990
(Millions)**

Beginning Value	\$361.7
Net Contributions	1.7
Investment Return	13.8
Ending Value	\$377.2

Bond Segment Performance

The composition of the Permanent School Fund's bond portfolio was essentially unchanged during the quarter. The bond portfolio is structured with a laddered distribution of maturities to minimize the Fund's exposure to re-investment rate risk. At the quarter's-end, the portfolio had a current yield of 9.00%, an average life of 7.22 years, and a AAA quality rating. The portfolio remains concentrated in Treasury and Agency issues and has a significant mortgage component as well.

**Bond Portfolio Statistics
6/30/90**

Value at Market	\$352,166,521
Value at Cost	343,574,060
Average Coupon	9.00%
Current Yield	9.00
Yield to Maturity	8.96
Current Yield at Cost	9.22
Time to Maturity	15.11 Years
Average Duration	7.22 Years
Average Quality Rating	AAA
Number of Issues	132

STATE CASH ACCOUNTS

Description

State Cash Accounts represent the cash balances in more than 200 separate accounts that flow through the Minnesota State Treasury. These accounts range in size from \$5,000 to over \$400 million.

Most accounts are invested by SBI staff through two short-term pooled funds:

- **Trust Fund Pool** contains the cash balances of retirement-related accounts managed internally and cash balances in the Permanent School Fund.
- **Treasurer's Cash Pool** contains the cash balances of special or dedicated accounts necessary for the operation of certain State agencies and the balance of the Invested Treasurer's Cash.

In addition, each State of Minnesota bond sale requires two additional pools; one for bond proceeds and one for the debt reserve transfer.

Because of special legal restrictions, a small number of cash accounts cannot be commingled. These accounts are invested separately.

Investment Objectives

- **Safety of Principal.** To preserve capital.
- **Competitive Rate of Return.** To provide a high level of current income.
- **Liquidity.** To meet cash needs without the forced sale of securities at a loss.

Asset Mix

The SBI maximizes current income while preserving capital by investing all cash accounts in high quality, liquid short term investments. These include U.S. Treasury and Agency issues, repurchase agreements, bankers acceptances, commercial paper, and certificates of deposit.

Investment Management

All state cash accounts are managed by the SBI investment staff. As noted above, most of the assets of the cash accounts are invested through two large commingled investment pools.

Performance

Both the Trust Fund Pool and the Treasurer's Cash Pool outperformed their target for the latest quarter and year.

	Period Ending 6/30/90		
	Market Value		
	(Millions)	Qtr.	Yr.
Treasurer's Cash Pool	\$2,655	2.2%	9.0%
Trust Fund Cash Pool	333	2.1	8.8
91-Day T-Bills		2.0	8.2

Tab B

PORTFOLIO STATISTICS

	PAGE
I. Composition of State Investment Portfolios 6/30/90	1
II. Cash Flow Available for Investment 4/01/90 - 6/30/90	3
III. Monthly Transactions and Asset Summary - Retirement Funds	4

STATE OF MINNESOTA
STATE BOARD OF INVESTMENT
COMPOSITION OF STATE INVESTMENT PORTFOLIOS BY TYPE OF INVESTMENT
MARKET VALUE JUNE 30, 1990
(in 000's)

	CASH AND SHORT TERM SECURITIES	BONDS		STOCKS		ALTERNATIVE ASSETS	TOTAL
		INTERNAL	EXTERNAL	INTERNAL	EXTERNAL		
BASIC RETIREMENT FUNDS:							
TEACHERS RETIREMENT FUND	\$ 24,043 0.74%	\$ -0-	\$ 847,864 25.95%	\$ -0-	\$2,006,959 61.41%	\$389,050 11.90%	\$ 3,267,916 100%
PUBLIC EMPLOYEES RETIRE. FUND	13,720 0.85%	-0-	416,666 25.91%	-0-	986,536 61.35%	191,221 11.89%	1,608,143 100%
STATE EMPLOYEES RETIRE. FUND	12,016 0.85%	-0-	364,924 25.91%	-0-	864,026 61.35%	167,475 11.89%	1,408,441 100%
PUBLIC EMP. POLICE & FIRE FUND	5,078 0.85%	-0-	154,201 25.91%	-0-	365,101 61.35%	70,768 11.89%	595,148 100%
HIGHWAY PATROL RETIRE. FUND	802 .76%	-0-	27,318 25.94%	-0-	64,679 61.40%	12,537 11.90%	105,336 100%
JUDGES RETIREMENT FUND	1 0.03%	-0-	817 24.56%	-0-	2,122 63.78%	387 11.63%	3,327 100%
PUBLIC EMP. P.F. CONSOLIDATED	356 0.83%	-0-	10,954 25.42%	-0-	26,705 61.98%	5,070 11.77%	43,086 100%
CORRECTIONAL EMPLOYEES RETIREMENT	1,367 1.98%	-0-	17,651 25.61%	-0-	41,792 60.65%	8,101 11.76%	68,911 100%
POST RETIREMENT FUND	312,337 5.85%	4,512,159 84.52%	-0-	514,033 9.63%	-0-	-0-	5,338,529 100%
MINNESOTA SUPPLEMENTAL FUNDS:							
INCOME SHARE ACCOUNT	21,480 8.78%	79,144 32.35%	-0-	-0-	144,020 58.87%	-0-	244,644 100%
GROWTH SHARE ACCOUNT	3	-0-	-0-	-0-	74,070 100%	-0-	74,073 100%
MONEY MARKET ACCOUNT	81,930 100%	-0-	-0-	-0-	-0-	-0-	81,930 100%
COMMON STOCK INDEX ACCOUNT	-0-	-0-	-0-	-0-	9,539 100%	-0-	9,539 100%
BOND MARKET ACCOUNT	-0-	-0-	6,597 100%	-0-	-0-	-0-	6,597 100%
GUARANTEED RETURN ACCOUNT	-0-	-0-	59,898 100%	-0-	-0-	-0-	59,898 100%

	CASH AND SHORT TERM SECURITIES	BONDS		STOCKS		ALTERNATIVE ASSETS	TOTAL
		INTERNAL	EXTERNAL	INTERNAL	EXTERNAL		
TOTAL RETIREMENT FUNDS	\$ 473,133 3.66%	\$4,591,303 35.55%	\$1,906,890 14.76%	\$514,033 3.98%	\$ 4,585,549 35.51%	\$844,609 6.54%	\$12,915,517 100%
PERMANENT SCHOOL FUND	18,229 4.83%	358,957 95.17%	-0-	-0-	-0-	-0-	377,186 100%
TREASURERS CASH	2,655,290 100%	-0-	-0-	-0-	-0-	-0-	2,655,290 100%
HOUSING FINANCE AGENCY	183,283 100%	-0-	-0-	-0-	-0-	-0-	183,283 100%
MINNESOTA DEBT SERVICE FUND	25,253 100%	-0-	-0-	-0-	-0-	-0-	25,253 100%
MISCELLANEOUS ACCOUNTS	142,952 100%	-0-	-0-	-0-	-0-	-0-	142,952 100%
GRAND TOTAL	\$3,498,140 21.46%	\$4,950,260 30.37%	\$1,906,890 11.70%	\$514,033 3.15%	\$4,585,549 28.14%	\$844,609 5.18%	\$16,299,481 100%

STATE OF MINNESOTA
STATE BOARD OF INVESTMENT
NET CASH FLOW AVAILABLE FOR INVESTMENT

For period of
April 1, 1990 - June 30, 1990

Teachers Retirement Fund	\$	-0-
Public Employees Retirement Fund		-0-
State Employees Retirement Fund		-0-
Public Employees Police & Fire		-0-
Highway Patrol Retirement Fund		(97,000.00)
Judges Retirement Fund		(2,421,000.00)
Public Emp. P & F Consolidated		(2,810,910.95)
Correctional Employees Retirement Fund		785,000.00
Post Retirement Fund		76,517,514.60
Supplemental Retirement Fund - Income		(3,677,621.98)
Supplemental Retirement Fund - Growth		(842,086.60)
Supplemental Retirement Fund - Money Market		754,493.83
Supplemental Retirement Fund - Index		779,240.17
Supplemental Retirement Fund - Bond Mkt.		332,200.84
Supplemental Retirement Fund - Guaranteed		322,586.59
 Total Retirement Funds Net Cash Flow	 \$	 69,642,416.50
 Permanent School Fund		 <u>1,695,290.95</u>
 Total Net Cash Flow	 \$	 <u><u>71,337,707.45</u></u>

STATE OF MINNESOTA
STATE BOARD OF INVESTMENT

TRANSACTION AND ASSET SUMMARY
RETIREMENT FUNDS

	Net Transactions			Asset Summary (at market)				Total (000,000) (at market)
	Bonds (000,000)	Stocks (000,000)	Total	Cash Flow	Short-term % of Fund	Bonds % of Fund	Equity % of Fund	
January 1988	(5)	118	113	57	5.9	50.0	44.1	9572
February	102	1	103	47	5.2	49.8	45.0	9841
March	25	(10)	15	6	5.2	49.8	45.0	9686
April	(9)	16	7	11	5.2	49.1	45.7	9667
May	(2)	(2)	(4)	41	5.7	48.3	46.0	9633
June	(3)	18	15	75	6.1	47.5	46.4	10045
July	91	(5)	86	56	5.8	48.1	46.1	10003
August	(3)	14	11	55	6.3	48.2	45.5	9920
September	(7)	(3)	(10)	19	6.4	48.0	45.6	10208
October	(7)	0	(7)	(27)	6.2	48.2	45.6	10329
November	129	1	130	88	5.8	48.6	45.6	10217
December	(1)	2	1	83	6.5	47.8	45.7	10414
January 1989	88	(10)	78	3	5.6	47.7	46.7	10760
February	60	18	78	38	5.3	47.9	46.8	10633
March	150	5	155	12	3.9	48.8	47.3	10783
April	(16)	188	172	16	2.3	48.1	49.6	11113
May	(2)	4	2	43	2.6	47.6	49.8	11461
June	119	10	129	119	2.5	49.2	48.3	11768
July	121	(100)	21	44	2.6	49.0	48.4	12287
August	275	(205)	70	51	2.4	49.8	47.8	12311
September	47	11	58	32	2.2	50.2	47.6	12344
October	113	(154)	(41)	8	2.6	52.5	44.9	12342
November	45	0	45	78	2.8	52.1	45.1	12494
December	14	6	20	24	2.8	51.8	45.4	12581
January 1990	(37)	6	(31)	85	3.9	52.0	44.1	12126
February	(12)	115	103	48	3.4	51.1	45.5	12232
March	(3)	7	4	8	3.4	50.5	46.1	12334
April	105	3	108	8	2.7	51.4	45.9	12070
May	(6)	27	21	52	2.8	50.0	47.2	12721
June	23	(22)	1	122	3.7	50.3	46.0	12916

Tab C

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MEMBERS OF THE BOARD.
GOVERNOR RUDY PERPICH
STATE AUDITOR ARNE H. CARLSON
STATE TREASURER MICHAEL A. McGRATH
SECRETARY OF STATE JOAN ANDERSON GROWE
ATTORNEY GENERAL HUBERT H. HUMPHREY III



EXECUTIVE DIRECTOR
HOWARD J. BICKER

STATE OF MINNESOTA
STATE BOARD OF INVESTMENT

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St Paul, MN 55155
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September 7, 1990

TO: Members, State Board of Investment
Members, Investment Advisory Council

FROM: Howard Bicker

SUBJECT: Executive Director's Administrative Report

1. Budget and Travel Reports

A final budget-to-actual report for FY 90 is in Attachment A. Overall, expenditures were approximately \$17,000 less than budgeted.

A travel report for the period from June 16 - August 15, 1990 is included as Attachment B.

2. Status Report on Police and Fire Fund Consolidation

In 1987, legislation was enacted that established procedures for voluntary consolidation of local police and fire plans with PERA (Minnesota Statutes Chapter 353A).

When a merger takes place, assets are transferred from the local plan to the Basic and Post Funds. SBI staff work with each plan to ensure that the securities being transferred are acceptable. Under M.S. 353A, the SBI executive director has authority to accept assets in-kind or to require that individual holdings be converted to cash prior to the transfer.

From 1987 through 1989, eleven plans with assets totalling \$68.0 million merged.

Consolidation activity has continued in 1990:

- o On March 31, 1990, Red Wing Police with assets totalling \$5.0 million merged.

- o On September 30, 1990, three plans with assets totalling \$4.0 million will merge:
 - Mankato Fire
 - Chisholm Fire
 - Chisholm Police

- o The memberships of five other plans with assets totalling \$37.2 million have approved consolidation. If their respective city councils provide final approval, the plans could merge on December 31, 1990:
 - Crookston Fire
 - Faribault Fire
 - Rochester Fire
 - St. Louis Park Police
 - Winona Police

In addition, the membership of St. Paul Fire approved consolidation and could consolidate December 31, 1990 if final approval is given by the St. Paul city council.

3. IAC Member Resignations

Two members of the Investment Advisory Council (IAC) resigned during the last quarter.

- o Jim Hacking has left his post as Executive Director of the Public Employees Retirement Association (PERA), in order to join the Minneapolis Employees Retirement System.

Mary Most Vanek has been appointed as PERA's Acting Executive Director. She will fill PERA's seat on the IAC until Mr. Hacking's permanent replacement is selected by the PERA Board.

- o Judy Mares also resigned her IAC seat during the quarter. She has left the Twin Cities area to assume management of the Ameritech pension fund in Chicago, Illinois.

Ms. Mares was a Board appointee to the IAC. Since her current term was set to expire in January 1991, I suggest that the Board seek her replacement through the process described below.

4. Expiration of IAC Appointments

The 3-year terms of the following Board member appointees to the IAC will expire in January 1991:

- o John Bohan
- o David Jeffery
- o Judy Mares (resigned, see above)
- o Malcolm McDonald
- o Gary Norstrem
- o Jan Yeomans

In the past, the Board has utilized the Open Appointments Process to announce IAC vacancies and expirations. A committee of Board member designees has then been convened to screen all applications, interview candidates and make recommendations to the Board. I suggest that this process be used again.

RECOMMENDATION:

I recommend that each board member appoint one designee to an IAC Appointment Review Committee. The Committee will make recommendations to the Board concerning the six IAC appointments which expire in January 1991.

5. Accounting System Contract Extension

The SBI's contract for a computerized accounting and portfolio management system will expire on June 30, 1991. The current contract was approved for a four year period (July 1, 1987 - June 30, 1991). The vendor was selected through a request for proposal (RFP) in the fall of 1987.

The system provides several important functions in the current SBI management structure:

- o It is used to process and account for transactions on the internally managed portfolios.
- o It provides an internal audit function for the externally managed portfolios.
- o It is used to compile the information necessary to generate and verify performance data.

As you know, the retirement systems are considering proposals which may alter the Post Retirement Fund's benefit increase mechanism. If changes are adopted, it is likely that the SBI's accounting needs would be affected significantly. The disposition of these proposals will not be known for several months. As a result, it is not possible to assess the SBI's future needs at this time.

Given these circumstances, I believe it is prudent to extend the current contract for one year and to conduct a full RFP process in late calendar 1991. The current vendor, Compensation and Capital, is willing to extend the contract under the current fee arrangement (\$162,000 per year).

RECOMMENDATION:

I recommend that the SBI authorize me, with assistance from SBI legal counsel, to negotiate and execute a one-year contract extension with Compensation and Capital for the SBI's accounting and portfolio management system.

ATTACHMENT A

STATE BOARD OF INVESTMENT
 FISCAL YEAR 1990 ADMINISTRATIVE BUDGET REPORT
 GENERAL FUND APPROPRIATION
 FISCAL YEAR ENDED JUNE 30, 1990

ITEM	FISCAL YEAR 1990 BUDGET	FISCAL YEAR 1990 EXPENDITURES
PERSONAL SERVICES		
CLASSIFIED EMPLOYEES	\$ 263,080	\$ 230,351
UNCLASSIFIED EMPLOYEES	1,094,000	1,087,632
PART-TIME EMPLOYEES	0	605
SEVERENCE PAY	0	16,729
MISCELLANEOUS PAYROLL	0	333
SUBTOTAL	\$ 1,357,080	\$ 1,335,650
EXPENSES & CONTRACTUAL SERVICES		
RENTS & LEASES	92,000	91,308
REPAIRS/ALTERATIONS/MAINTENANCE	8,000	8,122
PRINTING & BINDING	16,500	13,996
PROFESSIONAL/TECHNICAL SERVICES	10,000	7,210
DATA PROCESSING & SYSTEM SERVIC	162,000	162,000
PURCHASED SERVICES	20,000	29,024
SUBTOTAL	\$ 308,500	\$ 311,660
MISCELLANEOUS OPERATING EXPENSES		
COMMUNICATIONS	18,000	22,651
TRAVEL, IN-STATE	1,000	2,204
TRAVEL, OUT-STATE	34,000	38,407
FEES & OTHER FIXED CHARGES	7,000	4,237
SUBTOTAL	\$ 60,000	\$ 67,499
SUPPLIES/MATERIALS/PARTS	15,000	19,700
CAPITAL EQUIPMENT	17,000	6,098
TOTAL GENERAL FUND	\$ 1,757,580	\$ 1,740,607

ATTACHMENT B

STATE BOARD OF INVESTMENT

Travel Summary by Date
May 16, 1990 - August 15, 1990

<u>Purpose</u>	<u>Name(s)</u>	<u>Destination and Date</u>	<u>Total Cost</u>
Manager Monitoring Venture Capital Manager KKR Annual Meeting	J. Griebenow	New York 5/19-22	\$ 607.96
Staff Education "Performance Measurement" sponsored by Institute for Int'l Research Manager Search Active Equity Managers Bolsch Hardy, Scheinman, Cornerstone	M. Menssen	New York 5/21-23	\$1,087.96
Miscellaneous SIF Presentation Firefighters Conference	J. Heidelberg	Bemidji MN 6/7-8	\$ 164.72
Staff Education Richards & Tierney Client Conference	H. Bicker D. Gorence B. Lehman	Chicago 6/10-13	\$2,428.26
Board Member Travel National Association of Public Pension Attorneys Conference	C. Eller	Williamsburg VA 6/20-22	\$1,459.21
Miscellaneous Council of Instit. Inv. Executive Committee Mtg.	H. Bicker	San Francisco 7/8-9	\$1,148.70
Staff Conference Nat'l Assoc. of State Treasurers Annual Mtg.	H. Bicker	Lake Geneva WI 7/22-26	\$1,060.22
Manager Monitoring Active Bond Managers Lincoln, Lehman, Miller Manager Search Active Bond Managers Goldman, Salomon, Weiss Peck, BEA, Hyperion, Deltec, Equitable	H. Bicker D. Gorence J. Lukens	Chicago Philadelphia New York 7/30-8/3	\$4,412.93
Board Member Travel "States in a Changing World Economy" sponsored by Women Executives in State Government	J. Growe	New York 8/9-10	\$ 886.75

Tab D

MEMBERS OF THE BOARD
GOVERNOR RUDY PERPICH
STATE AUDITOR ARNE H. CARLSON
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September 7, 1990

TO: Members, State Board of Investment
Members, Investment Advisory Council

FROM: Equity Manager Committee

SUBJECT: Committee Report

The IAC Equity manager Committee met on August 20, 1990, to review the following agenda:

- o Review of Active Manager Performance
- o In-depth Review of Investment Advisers, Inc.
- o Status Report on Tilted Index Fund Implementation

None of the items require action by the Board at this time.

INFORMATION ITEMS:

1) Review of Active Manager Performance

For the quarter ending June 30, 1990, the active manager group outperformed both the Wilshire 5000 and its aggregate benchmark (Managers 5.8% vs. Wilshire 5000 5.6% vs. Aggregate Benchmark 4.9%). For the latest one, three and five year periods, the current active manager group has outperformed both its aggregate benchmark and the Wilshire 5000.

The evaluation reports for each manager are attached at the end of this tab section.

2) In-Depth Review of Investment Advisers, Inc.

Last quarter, the Committee requested that staff conduct a formal review of Investment Advisers, Inc. A copy of staff's full report on Investment Advisers is attached. A summary of staff findings follows:

o **Qualitative Concerns**

- A recent move to in-house research raises questions about IAI's ability to secure the resources necessary to provide positive benefits to the investment process.
- Resistance to articulate a growth plan raises questions about the future stability of the firm.
- Lack of attention to information requests and other administrative details hinders staff's ability to manage the entire external equity program efficiently.

o **Quantitative Concerns**

- IAI has not added value on a cumulative basis relative to its benchmark since inception of the account with the SBI.
- Each component of IAI's investment process (market timing, sector allocation, stock selection) has failed to add value relative to its benchmark.

The Board's Manager Continuation Policy does not require that IAI be terminated at this time. However, IAI's continued underperformance is significant enough to cause serious concern and warrants close monitoring of all aspects of the firm over the next several quarters. Consistent with the Manager Continuation Policy, staff recommended that IAI be reviewed in one year if performance relative to its benchmark does not improve.

The Committee concurs with the staff recommendation but indicated its desire to carefully review IAI's progress on a quarterly basis. The Committee also requested that staff communicate these findings and conclusions to IAI as soon as possible.

3) Status Report on Tilted-Index Fund Implementation

At its meeting in June 1990, the Board approved a proposal to modify the characteristics of the index fund in order to compensate for the bias or misfit in the active stock manager group.

Contractual arrangements are being finalized between the SBI, Wilshire Associates and State Street Bank. The necessary amendments should be completed in early September.

Staff has also met with personnel from Wilshire Associates and Richards & Tierney (R&T) to discuss details of the implementation plan. These meetings established what data must be communicated between R&T and Wilshire to provide a smooth transition from the current index fund to the tilted fund.

DETAILED STOCK MANAGER REVIEW
INVESTMENT ADVISERS, INC.

I. Organizational Background

A. Ownership

B. Professional Staff

C. Assets Under Management

II. Investment Approach

A. Overall Philosophy

B. Prominent Characteristics

C. Benchmark Construction

III. Performance Analysis

A. Benchmark Explanatory Power

B. Benchmark Performance Relative to the Wilshire 5000

C. Portfolio Performance Attribution

IV. Summary of Board/IAC Actions to Date

V. Conclusion

Exhibits

EXTERNAL MANAGER DETAIL

INVESTMENT ADVISERS, INC.

I. ORGANIZATIONAL BACKGROUND

A. Ownership

Since the inception of the SBI's account several ownership changes have occurred. Originally Inter-Regional Financial Group, Inc., a local publically held financial services holding company, owned IAI as a wholly owned subsidiary. In 1985, IAI management bought the subsidiary from Inter-Regional Financial Group. In January of 1986 Hill Samuel Group PLC., a merchant banking and financial services company located in London England, purchased IAI. In November of 1987 TSB Group PLC., a banking institution also located in England, acquired Hill Samuel Group. IAI's offices are located at 1100 Dain Tower, Minneapolis, MN.

A change in ownership represents one of the qualitative criteria for automatically putting a manager on probation. However, in both cases IAI satisfied the staff concerns and showed that the ownership change did not materially affect how IAI runs their business and caused no changes to be made to their investment process. In fact, IAI feels that the foreign ownership provides a positive benefit in helping to offer international investing oportunities.

B. Professional Staff

Originally Ken Thorsen managed the SBI's account. However, in 1985 IAI removed Mr. Thorsen from the SBI account citing their dissatisfaction with his performance and assigned Chuck Webster to manage the SBI's account.

A concern that staff has with IAI's professional staff is their continuing lack of attention to details. IAI continually needs reminders to complete requests for data and other administrative details. This lack of attention to details hinders staff's ability to work with IAI in implementing various investment strategies and policies needed to run the external equity program on an efficient basis.

C. Assets Under Management

	Equity Assets Under Management	
	Number of Accounts	Market Value (In Millions)
Dec. 1983	30	\$720
Dec. 1984	32	870
Dec. 1985	32	1100
Dec. 1986	33	1400
Dec. 1987	32	1600
Dec. 1988	31	1070
Dec. 1989	32	1500
April 1990	33	1800

IAI's account growth shows a slight net increase since 1983. IAI has been able to solicit enough new accounts to offset the ones they have lost. The stability of the number of accounts does not reflect an adherence to a growth plan in place at IAI. In fact, the lack of implementing a well thought out growth plan continues to be one of the qualitative issues that staff addresses with IAI.

The staff's concerns arise from previous experience with other investment managers who did not have a growth plan in place. Without a growth plan, the potential exists for a firm to accept a rapid growth of accounts. Staff's previous experience with this event shows that the investment manager may take on more accounts than the manager's resources can handle and consequently the manager's performance has the potential to deteriorate significantly.

D. Personnel Turnover

Along with the release of Mr. Thorson in 1988, IAI released two other portfolio managers in 1984 and 1989 because their investment philosophies and capabilities did not fit in with IAI's investment approach. Lastly, IAI hired two portfolio managers in 1987 and one portfolio manager in 1989.

Staff considers the turnover rate in IAI's investment staff to be slightly above average. However, IAI's Chief Investment Officer provides the primary leadership within the organization and he still remains with the firm. This helps to minimize the impact of the portfolio manager turnover.

II. INVESTMENT APPROACH

A. Overall Philosophy

IAI's investment approach reflects a "rotational" orientation and its macroeconomic forecasts drive its decision process. IAI will invest in a wide range of industries depending upon the existing and future economic conditions. Three steps are used to build the portfolio:

- Asset allocation
- Sector/theme selection
- Stock selection

In the past IAI emphasized market timing and sector weighting decisions. However, since 1989, IAI started to concentrate more resources in the stock selection portion of its investment process.

Asset Allocation

IAI's investment approach starts by determining the asset allocation between stocks and cash. IAI uses three primary inputs to determine its asset allocation strategy:

Credit Cycle

The credit cycle looks at the financial and physical slack currently existing in the economy. Financial slack looks at the liquidity available to finance expansion while physical slack tries to measure the probability and timing of inflationary pressures.

To quantify the analysis, financial slack uses yield curve analysis while physical slack uses economic production indicators (e.g. capacity utilization, unemployment rate, and average hourly earnings).

Federal Reserve Policy

To project future Federal Reserve policy, IAI looks at the Fed Funds rate and the net free reserves. They also use the growth rate of the money supply on a moving average basis. Using this information IAI decides whether the future Federal Reserve monetary policy will be restrictive or expansionary.

Market Valuation

IAI performs a market valuation analysis by analyzing projected returns on stocks relative to three month T-Bills

and five year Treasury notes. In addition, they look at the dividend yield relative to a one year Treasury note.

IAI evaluates their asset allocation on a monthly basis. Their analysis emphasizes the credit cycle and Federal Reserve policy while the market valuation factors tend to have somewhat less influence on the final decision. IAI investment policy allows their cash position to fluctuate from 0 to 30%. Generally, IAI tends to make gradual moves in their asset allocation decision. For a historical perspective of IAI's cash allocation, see Exhibit 6.

Theme/Sector

After IAI determines its equity allocation they identify the equity themes with the greatest potential over the next 12 to 18 months. IAI rotates among the following seven equity themes:

- Low inflation beneficiaries
- Earnings momentum
- Major growth
- Small/medium capitalization growth
- Economic expansion
- High yield/low beta
- Exceptional value

To determine the weighting among the various themes IAI uses a number of analytical tools and measures including:

- Dividend discount model
- Business cycle analysis
- Interest rate analysis
- Earnings growth analysis
- Current yield analysis

In determining the final weighting allocation among the seven equity themes, IAI restricts each to no more than twice the S&P 500 weighting when classified under the same seven equity themes. In addition IAI restricts the small/medium capitalization theme to no more than 20% of the total portfolio. Exhibit 9 provides a historical perspective of IAI's sectors weightings. (The sector weightings shown reflect the staff's classification methodology rather than IAI's, but still provide insight to IAI's rotation among various sectors.)

Stock Selection

Lastly, after determining the equity theme weightings, IAI attempts to pick the best stocks within each of those themes. Prior to 1989 IAI's stock selection process depended heavily on research generated by Wall Street firms to help them pick the best available stocks. IAI's stock selection process since 1989 primarily uses internally generated fundamental analysis. The major inputs to their analysis include:

- Published financial data
- Meetings with management, suppliers, and competitors.

IAI ranks the stocks' potential appreciation relative to the market. In addition, the ranking includes IAI's evaluation of the potential risk that the stocks will not achieve IAI's appreciation projections. IAI will then select the best stocks to achieve the desired sector weightings. However, IAI constrains any one security to 3% of the total portfolio at cost and will start to pare the stock back if its appreciation causes it to represent more than 6% of the portfolio at market value.

IAI's change in investment analysis to emphasize in-house research concerns staff in regards to their ability to secure the appropriate resources and to implement the change in a value added manner.

B. Prominent Characteristics

An analysis of the firm's past portfolios reveals a number of prominent risk factors and sector exposures. The following risk and sector exposure highlights were derived from Exhibits 1 and 3.

Risk Exposure Highlights: IAI's portfolios relative to the BARRA Hicap universe reflect a consistent bias towards a higher exposure to beta and growth and lower exposure to book to price and dividend yield. The size factor does not show a consistent trend; starting in 1989 the size exposure for IAI's portfolios has gone from a neutral position to a negative exposure partly due to using internally generated information rather than external "Street" research to make their stock selection picks.

Sector Exposure Highlights: IAI's portfolios generally reflect an overweighting in consumer non-durables and basic materials and an underweighting in consumer durables and financial stocks. While IAI shows a willingness to make significant bets in all sectors, they have consistently held a negative bet in consumer durables and the financial sectors over the time period analyzed.

C. Benchmark Construction

Benchmark Universe

Prior to mid 1987 the Wilshire 5000 represented IAI's benchmark. Given the sector rotational aspect of IAI's approach, a broad market benchmark seemed appropriate. The combination of IAI's equity-only beta and normally high cash position produced a beta close to one. As a result no cash position was assigned to the benchmark. Over time staff became concerned about the benchmark due to IAI's consistent exposure to growth (see Exhibit 3).

In 1987 IAI, with the assistance of a consulting firm, revisited the benchmark construction process to try to better define IAI's investment universe. Implementation of the current benchmark construction process started on July, 1987 and continues to be used to date.

The new construction process starts with approximately 400 stocks that make up IAI's research list. From that list, the construction process eliminates all the restricted liquor, tobacco, and South Africa stocks. IAI then reviews the list to add or delete any specific stocks they deemed appropriate.

To weight the finalized list IAI uses a "ramped" weighting methodology. The ramp weighting method assigns a score to each stock proportional to its market capitalization. In addition, the ramp methodology assigns a predetermined minimum/maximum score for any stock whose market capitalization is above or below a predetermined range. The following shows the predetermined market capitalization and score for the IAI "ramp" weighting process:

- Minimum capitalization \$700 million
- Maximum capitalization \$5 billion
- Minimum score 1
- Maximum score 5

All the stock scores are summed and the weight of individual stocks is determined by dividing its score by the total of all scores.

In addition to using the "ramp" weighting method the following constraints are also imposed:

- No individual stock will be greater than 4% of the benchmark portfolio.
- No one industry classification will be greater than 20% of the benchmark portfolio.

● The following industry targets are imposed:

- International Oil = 5.5%
- Regional Banks < 1.5%
- Money Center Banks < 1.5%
- Property Casualty Ins. < 6.0%
- Electric Power < 6.0%
- Telephone = 6.0%

A historical analysis up to the middle of 1987 showed that, on average, actual cash represented about 15% of the portfolio (see Exhibit 6). In addition, the 15% cash allocation makes intuitive sense because IAI's investment approach requires the cash allocation to stay within a range of 0 - 30%.

Benchmark Risk Factor and Profile

A valid benchmark should exhibit risk factor and sector exposures similar in direction and magnitude to historical portfolio exposures.

As can be seen from Exhibit 3, the IAI benchmark risk factor profile shows a reasonably close similarity to that of IAI's past portfolios. The actual portfolios show a persistently higher exposure to trading activity and growth and a lower exposure to dividend yield risk factors relative to its benchmark. With respect to sector weights, Exhibit 4 shows that the actual portfolios have had a higher exposure to the consumer non-durable and basic materials sectors and a lower exposure to the financial and consumer durable sectors relative to its benchmark over a shorter time period.

Benchmark Coverage and Turnover

Benchmark portfolio coverage measures the extent to which the benchmark contains securities actually held by the manager. Coverage will vary depending on the level of discipline exhibited in a manager's definition and implementation of its investment style. A valid benchmark should produce a coverage in the range of 80-90%. In addition, a stock held in the actual portfolio implies that the manager believes that particular stock will do well relative to the other stocks in the managers investment universe. Therefore, the weighting of each of the holdings should exceed the corresponding weights assigned to the same securities in the benchmark.

Benchmark turnover measures the proportion of the benchmark's total market value that represents either the purchase of new securities or additions to existing positions at each rebalancing period. A valid and investable benchmark should experience reasonable levels of turnover. However, a realistic passive management implementation of a manager's benchmark should not incur a semi-annual turnover greater than 30%.

A summary of IAI's benchmark coverage and turnover is shown below:

Table I

6/87-6/90 Semi-Annual Data	Actual Portfolio Contained in Benchmark	Actual Portfolio Weights Greater Than Benchmark Weights	Semi-Annual Benchmark Turnover
Average	95.52%	99.46%	8.84%
Minimum	92.64	97.42	4.17
Maximum	98.48	100.00	17.13

In terms of coverage, the IAI benchmark, on average, captures over 95% of the IAI actual portfolio composition since the inception of the benchmark. In addition, Table I shows that virtually all of the actual holdings had portfolio weights greater than their corresponding benchmark weights. Both these measures indicate that IAI's benchmark will provide a good baseline from which to conduct performance attribution and evaluation.

In regards to benchmark turnover, IAI's benchmark maintains a very low level of turnover. This gives a good indication that the IAI benchmark represents a valid and investable benchmark.

III. PERFORMANCE ANALYSIS

A. Benchmark Explanatory Power

Because the manager's benchmark more accurately represents the manager's investment style than does the market, it should do a better job of explaining the returns generated by the manager. Calculating an information ratio (IR) provides an useful analytical measure to determine the benchmark's explanatory power. The IR compares the Value of Active Management (VAM) to the standard deviation of the VAM. A valid benchmark should produce an IR larger than one generated when the market (e.g. Wilshire 5000) serves as the benchmark. Table II summarizes an IR analysis of IAI's actual returns relative to their benchmark and the Wilshire 5000.

Table II

For the Time Period 7/1/87 to 5/31/90	IAI Actual vs. IAI Benchmark	IAI Actual vs. W5000
Cumulative Annualized VAM	-0.841	-1.118
Annualized Standard Deviation of VAM	4.819	5.843
Information Ratio (IR)	-0.174	-0.191
Information Ratio T-Statistic	-0.299	-0.329
Percentage of Months VAM > 0	48.57%	42.86%

As expected, the IAI benchmark produces a slightly better IR than does the market and confirms that the benchmark provides a better baseline to evaluate IAI's performance. The IR is negative due to IAI's inability to add value over the time period.

The explanatory power of the manager's benchmark can also be derived from correlations between the manager's actual portfolio returns versus those of the market (EXM), and the managers VAM, and the manager's benchmark returns versus those of the market (MFT). A valid benchmark should exhibit a positive correlation between EXM and MFT. That is, when the manager's benchmark (or investment style) performs well relative to the market, one would expect the manager's portfolio will also do well versus the market. On the other hand, a valid benchmark should over time produce a roughly zero correlation between MFT and VAM, because the manager's ability to add value relative to the benchmark should not be affected by the performance of the benchmark (i.e. style) relative to the market. Table III displays IAI's correlation analysis.

Table III

**IAI
Residual Correlation Matrix**

	EXM	MFT	VAM
Portfolio vs. Market	1.000		
Benchmark vs. Market	.438	1.000	
Portfolio vs. Benchmark	.898	-.003	1.000

The IAI benchmark exhibits a reasonably positive correlation between EXM and MFT and almost a zero correlation between VAM and MFT. This analysis shows that the IAI benchmark provides more explanatory power for IAI than a broad market index. Therefore, a higher degree of reliability can be assigned to the conclusions drawn from performance analysis using IAI's benchmark than from a broad market average.

B. Benchmark Performance Relative To The Wilshire 5000

Since the inception of the current benchmark in July 1987, the benchmark returns have fairly closely followed the broad market returns (see Exhibit 4). This should be expected since the benchmark is a modified capitalization weighted index of their research list less the South Africa and liquor and tobacco restrictions. IAI's research list tends to include a fairly large proportion of the largest capitalization stocks in the market and represents a substantial proportion of the total market capitalization.

C. Portfolio Performance Attribution

Market Timing

IAI's market timing decisions detracted from portfolio performance. Exhibit 5 shows that cumulative value added due to market timing was a -0.4% (-0.16% annualized) for the time period July 1987 through May 1990. Exhibit 6 shows the actual cash allocation relative to the benchmark's 15% allocation for the time period January 1984 to June 1990.

Other than a few months in 1988, IAI held a positive bet in cash from December 1985 to June 1990. This explains IAI's negative performance in market timing since stocks outperformed cash during this time period. In fact, if the stock market crash in the fourth quarter of 1987 were excluded, the cumulative value added would have been -2.4% (-1.0% annualized) for the time period July 1987 through May 1990.

Exhibit 4 shows that IAI's market timing decisions incurred a cumulative value added of -14.7% (-2.2% annualized) since January 1984.

Sector Allocation

Exhibit 5 shows that since July 1987, sector allocation contributed the greatest amount to IAI's underperformance relative to its benchmark. The total cumulative underperformance was a -2.15% (-0.85% annualized). This is more than three quarters of the total underperformance since July 1987. Broken down by calendar year, only the last half of 1987 recorded a meaningful positive rate of return.

When broken down by sector (see Exhibit 7), only the transportation and financial sectors showed a positive value added for the time period July 1987 through May 1990. The transportation sector reported a positive value added due to overweighting the sector during 1989. Since 1984 IAI has held both positive and negative bets in the transportation sector. IAI generated value added in the financial sector by maintaining a constant negative bet since January 1984. Exhibit 7 shows that IAI made consistently poor sector timing decisions.

Stock Selection

Stock selection showed the greatest volatility among the three attribution factors. However, Exhibit 5 shows that the cumulative value added was slightly negative for the time period analyzed. Since IAI looks at stock selection in conjunction with its sector analysis, Exhibit 8 shows an attribution analysis of individual stock selection broken down by sector. The

analysis shows that IAI added value in six of the ten sectors on a cumulative basis. However, only three of the six showed value added of any magnitude. Three sectors showed significant value lost. Overall stock selection generated negligible impact on IAI's total value added.

Exhibit 4 also shows that IAI equity investment decisions (sector and stock selection) did not add value on a cumulative basis since 1984. Over the time period IAI recorded a -2.2% cumulative value added (-0.34% annualized).

Total Portfolio

In conclusion the following observations can be made based on IAI's performance analysis:

- IAI's benchmark represents a better baseline from which to evaluate IAI's performance relative to using a market average. Therefore, a higher degree of reliability can be assigned to the conclusions drawn from the performance analysis using IAI's benchmark rather than a broad market average.
- IAI's market timing decisions did not add value on a cumulative basis since January 1984 and was the major contributor to IAI's overall poor performance.
- IAI's stock and sector selections combined did not add value on a cumulative basis since January 1984.
- The VAM graph (Exhibit 2) shows IAI's historical inability to add value on a cumulative basis. The graph shows that IAI generally has not added value since the middle of 1985.

IV. SUMMARY OF BOARD/IAC ACTIONS TO DATE

In January 1983 the Board approved a recommendation to hire Investment Advisors Incorporated. The firm received \$50 million in March 1983.

In August 1984 staff placed IAI on a "watch list" due to concerns about the high level of diversification in the SBI's account. The staff was concerned that this low level of risk in the IAI's portfolio might impair the firm's ability to meet the SBI's long run performance objectives.

In November 1987, the Board put IAI on probation for qualitative and quantitative reasons. In March 1988, the Board removed IAI from probation. During that time period IAI satisfactorily resolved most of the qualitative concerns cited and its recent strong performance caused cumulative performance to rise above the probation level.

In October 1989 \$30 million was withdrawn from IAI to complete a large rebalancing program for the Basic Retirement Funds.

V. CONCLUSION

The Board's Manager Continuation Policy does not require that IAI be terminated at this time. However, IAI's continued underperformance is significant enough to cause serious concern and warrants close monitoring of all aspects of the firm over the next several quarters.

- **Qualitative Concerns**

- A recent move to in-house research raises questions about IAI's ability to secure the resources necessary to provide positive benefits to the investment process.
- Resistance to articulate a growth plan raises questions about the future stability of the firm.
- Lack of attention to information requests and other administrative details hinders staff's ability to manage the entire external equity program efficiently.

- **Quantitative Concerns**

- IAI has not added value on a cumulative basis relative to its benchmark since inception of the account with the SBI.
- Each component of IAI's investment process (market timing, sector allocation, stock selection) has failed to add value relative to its benchmark and exhibits a high degree of randomness.

Consistent with the Manager Continuation Policy, staff recommends that IAI be reviewed in one year if performance relative to its benchmark does not improve.

EXHIBIT 1

RISK ANALYSIS SUMMARY
INVESTMENT ADVISERS, INC.

<u>DATE</u>	<u># STKS</u>	<u>SPEC. RISK</u>	<u>EQ. BETA</u>	<u>VAR. MKTS</u>	<u>EAR. VAR</u>	<u>BOOK/ PRICE</u>	<u>SIZE RISK</u>	<u>GROWTH RISK</u>	<u>EAR./ PRICE</u>	<u>YIELD</u>	<u>FIN. RISK</u>
01/01/84	39	0.82	1.08	0.02	0.22	0.04	0.16	0.24	0.03	-0.32	0.20
04/01/84	37	0.80	1.10	0.01	0.09	-0.06	0.14	0.16	0.14	-0.21	0.21
07/01/84	41	0.78	1.10	0.05	0.14	0.10	0.17	0.10	0.26	-0.11	0.18
10/01/84	38	0.85	1.14	0.19	0.26	0.27	0.17	0.14	0.31	-0.13	0.15
01/01/85	41	0.80	1.12	0.17	0.29	0.26	0.17	0.17	0.28	-0.15	0.15
04/01/85	37	0.83	1.15	0.22	0.21	0.12	0.07	0.27	0.25	-0.27	0.13
07/01/85	37	0.85	1.16	0.27	0.17	0.18	0.13	0.29	0.14	-0.35	0.13
10/01/85	38	0.84	1.14	0.20	0.00	0.15	0.02	0.28	0.07	-0.36	0.05
01/01/86	36	0.88	1.10	0.14	0.00	-0.06	0.06	0.27	-0.09	-0.39	-0.04
04/01/86	36	0.88	1.10	0.14	-0.09	0.00	-0.01	0.27	-0.11	-0.42	0.00
07/01/86	35	0.96	1.15	0.33	0.03	-0.31	-0.12	0.46	-0.13	-0.61	0.00
10/01/86	34	0.97	1.13	0.27	0.03	-0.29	-0.16	0.49	-0.10	-0.63	-0.04
01/01/87	36	0.87	1.07	0.12	-0.02	-0.22	-0.01	0.33	-0.02	-0.44	-0.05
04/01/87	42	0.86	1.08	0.19	-0.05	-0.32	0.00	0.32	-0.02	-0.48	-0.01
07/01/87	43	0.87	1.09	0.19	-0.10	-0.35	0.02	0.34	-0.08	-0.44	-0.10
10/01/87	43	0.88	1.09	0.21	-0.16	-0.34	0.10	0.30	-0.07	-0.43	-0.13
01/01/88	42	0.85	1.08	0.12	-0.12	-0.32	0.00	0.35	-0.15	-0.50	-0.14
04/01/88	44	0.78	1.06	0.01	-0.08	-0.30	-0.06	0.30	-0.12	-0.39	0.01
07/01/88	42	0.79	1.06	0.08	-0.04	-0.23	0.00	0.25	-0.06	-0.35	0.09
10/01/88	38	0.84	1.08	0.12	0.01	-0.21	0.01	0.27	-0.05	-0.30	0.09
01/01/89	42	0.80	1.08	0.13	0.04	-0.13	-0.04	0.28	0.02	-0.25	0.09
04/01/89	37	0.92	1.09	0.25	0.25	-0.17	-0.16	0.34	-0.03	-0.34	0.10
07/01/89	35	1.12	1.13	0.47	0.32	-0.34	-0.34	0.49	-0.28	-0.47	-0.01
10/01/89	33	1.09	1.12	0.48	0.26	-0.26	-0.34	0.48	-0.33	-0.47	-0.09
01/01/90	33	1.04	1.10	0.30	0.27	-0.25	-0.37	0.45	-0.29	-0.47	0.04
04/01/90	33	0.97	1.08	0.24	0.07	-0.23	-0.33	0.32	-0.18	-0.34	0.04
MEAN	35	0.95	1.10	0.22	0.03	-0.23	-0.19	0.36	-0.11	-0.44	0.00
MIN	19	0.78	1.02	0.01	-0.23	-0.55	-0.97	0.10	-0.39	-0.81	-0.18
MAX	44	1.54	1.18	0.56	0.34	0.27	0.17	0.72	0.31	0.00	0.21
STD DEV	5	0.14	0.03	0.14	0.14	0.16	0.29	0.12	0.15	0.14	0.09

VALUE OF ACTIVE MANAGEMENT REPORT INVESTMENT ADVISERS

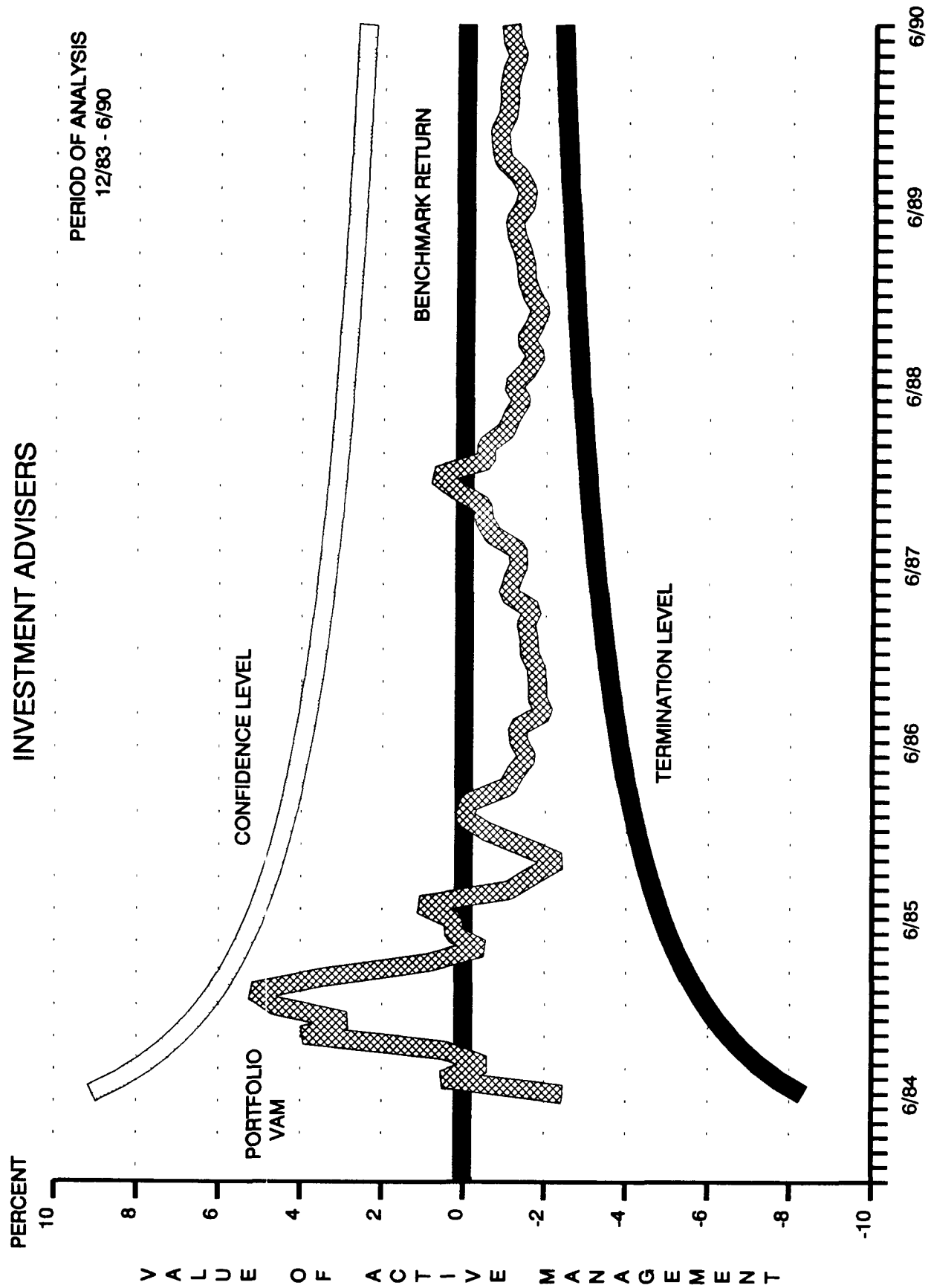


EXHIBIT 3

INVESTMENT ADVISERS, INC.

PAST PORTFOLIO DATA
AVAILABLE MONTHLY (1/84 - 5/89)

RISK FACTOR EXPOSURES

	<u>BETA</u>	<u>VAR. IN MKTS</u>	<u>SUCCESS</u>	<u>SIZE</u>	<u>TRAD. ACT.</u>	<u>GROWTH</u>	<u>E/P</u>	<u>B/P</u>	<u>EARN VAR</u>	<u>FINL LEV</u>	<u>FOR INC</u>	<u>LABOR INT.</u>	<u>DIV. YIELD</u>
MINIMUM PORTFOLIO	1.05	0.01	-0.36	-0.45	0.21	0.10	-0.33	-0.36	-0.16	-0.16	-0.17	-0.08	-0.64
PORTFOLIO AVERAGE	1.10	0.20	0.20	-0.07	0.41	0.33	-0.08	-0.20	0.05	0.01	0.30	0.17	-0.40
MAXIMUM PORTFOLIO	1.16	0.49	0.43	0.17	0.84	0.51	0.31	0.27	0.34	0.21	0.62	0.35	-0.11
BENCHMARK AVERAGE	1.03	0.04	-0.01	0.07	0.07	0.05	0.00	-0.03	-0.01	-0.01	0.12	0.04	-0.05

SECTOR WEIGHTS

ACTUAL PORTFOLIO WEIGHT LESS BENCHMARK PORTFOLIO

	<u>CONS NON-DUR</u>	<u>CONS DURABLE</u>	<u>BASIC MATERIALS</u>	<u>CAPITAL GOODS</u>	<u>ENERGY</u>	<u>TECH.</u>	<u>TRANS.</u>	<u>UTIL.</u>	<u>FIN.</u>
MINIMUM PORTFOLIO	-1.78	-5.32	-1.32	-2.41	-6.35	-5.25	-2.68	-7.96	-9.16
PORTFOLIO AVERAGE	7.48	-3.59	5.17	-0.12	-2.67	1.65	0.03	-1.52	-6.44
MAXIMUM PORTFOLIO	15.58	-0.27	9.76	5.84	4.65	9.42	4.12	3.45	-2.20
BENCHMARK AVERAGE	32.97	5.05	11.44	6.55	9.89	9.12	3.13	12.40	9.40
MARKET AVERAGE (S&P 500)	30.12	5.22	10.20	7.73	13.78	9.95	2.35	12.93	7.71

EXHIBIT 4

INVESTMENT ADVISERS, INC.

Comparison of Actual Portfolio Performance with
Customized Benchmark and Wilshire 5000

(all figures are percentages)

QUARTER	EQUITY-ONLY		TOTAL PORTFOLIO		WILSHIRE 5000
	ACTUAL	BENCHMARK	ACTUAL	BENCHMARK	
1984 1Q	-5.8	-4.2	-4.9	-4.0	-4.2
2Q	-3.0	-2.8	-2.9	-2.6	-2.8
3Q	11.3	9.2	10.7	9.0	9.2
4Q	<u>5.8</u>	<u>1.3</u>	<u>5.7</u>	<u>1.3</u>	<u>1.3</u>
	7.6	3.1	8.1	3.3	3.1
1985 1Q	6.4	10.3	6.4	10.1	10.3
2Q	7.2	7.5	6.4	7.3	7.5
3Q	-7.9	-4.3	-7.2	-4.1	-4.3
4Q	<u>20.6</u>	<u>16.8</u>	<u>18.5</u>	<u>16.2</u>	<u>16.8</u>
	26.7	32.6	24.5	31.7	32.6
1986 1Q	14.8	14.4	12.4	13.9	14.4
2Q	5.3	5.8	4.6	5.7	5.8
3Q	-11.1	-7.7	-8.9	-7.4	-7.7
4Q	<u>4.9</u>	<u>4.0</u>	<u>4.1</u>	<u>3.9</u>	<u>4.0</u>
	12.7	16.1	11.6	15.8	16.1
1987 1Q	24.9	21.2	19.7	20.4	21.2
2Q	4.9	3.4	4.0	3.2	3.4
3Q	10.8	6.4	8.8	5.7	6.2
4Q	<u>-19.6</u>	<u>-22.5</u>	<u>-15.2</u>	<u>-18.9</u>	<u>-23.1</u>
	16.7	3.3	14.9	6.5	2.3
1988 1Q	-2.0	6.3	-1.5	5.6	8.0
2Q	5.3	6.5	4.6	5.8	6.5
3Q	-1.4	0.5	-1.0	0.7	0.2
4Q	<u>1.8</u>	<u>3.2</u>	<u>1.8</u>	<u>3.0</u>	<u>2.3</u>
	3.6	17.4	3.9	15.9	17.9
1989 1Q	8.4	7.2	7.4	6.4	7.4
2Q	7.6	8.1	6.5	7.2	8.6
3Q	16.1	10.7	12.4	9.4	10.1
4Q	<u>-0.6</u>	<u>0.7</u>	<u>0.2</u>	<u>0.9</u>	<u>0.6</u>
	34.6	29.2	28.7	26.0	29.2
1990 1Q	-4.7	-2.7	-2.9	-2.0	-3.5
2Q	7.0	6.4	5.8	5.8	5.6
CUMULATIVE	155.0	157.2	137.0	154.0	151.7

EXHIBIT 5
 INVESTMENT ADVISERS, INC.
 PERFORMANCE ATTRIBUTION

7/1/87 - 5/31/90

	<u>MARKET TIMING</u>	<u>SECTOR ALLOCATION</u>	<u>STOCK SELECTION</u>	<u>TOTAL</u>
7/1/87 - 12/31/87	1.14	2.61%	4.20	7.95
1/1/88 - 12/31/88	-0.67	-3.30	-7.09	-11.06
1/1/89 - 12/31/89	-1.20	-1.42	4.73	2.11
1/1/90 - 5/31/90	<u>0.35</u>	<u>0.04</u>	<u>-1.46</u>	<u>-1.07</u>
CUMULATIVE	-0.40	-2.15	-0.09	-2.64

EXHIBIT 6

INVESTMENT ADVISERS INC.

Percentage Invested in Cash

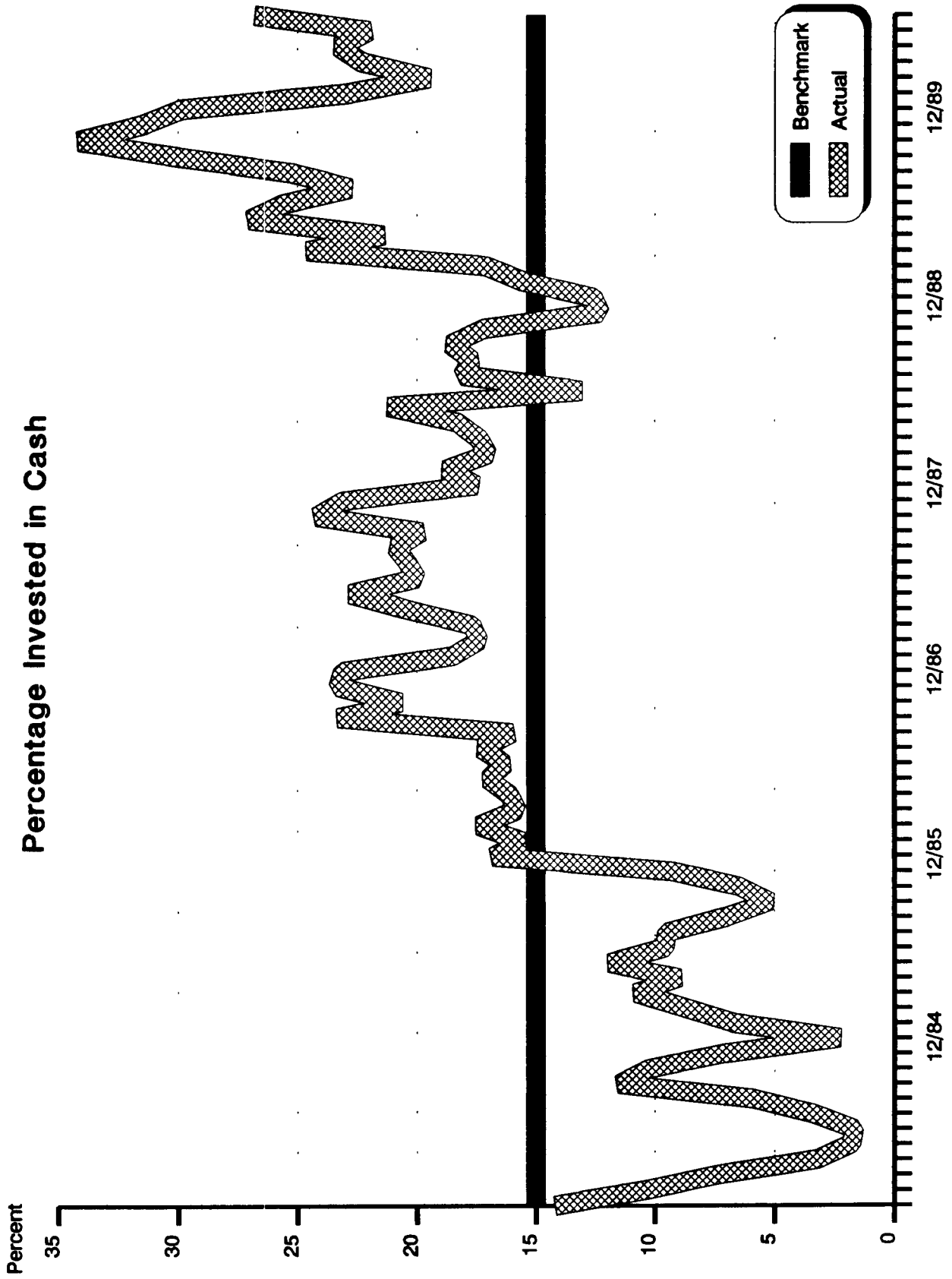


EXHIBIT 7

INVESTMENT ADVISERS, INC.
 PERFORMANCE ATTRIBUTION ANALYSIS
 SECTOR ALLOCATION

JULY 1987 - MAY 1990

<u>SECTOR</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>TOTAL CUMM.</u>
BASIC MAT.	0.89%	-1.08%	-0.50%	0.05%	-0.65%
CAPITAL GOODS	-0.02	-0.28	-0.41	-0.03	-0.74
CONSUMER DUR.	0.02	-0.03	-0.33	-0.26	-0.60
CONSUMER NON	0.02	-0.48	-0.55	0.22	-0.79
ENERGY	0.77	-0.51	-0.35	0.09	0.00
FINANCIAL	0.99	0.10	0.29	-0.35	1.03
TECHNOLOGY	0.75	-1.15	0.60	-0.20	-0.15
TRANSPORTATION	0.09	0.05	0.53	-0.06	0.61
UTILITIES	-0.64	0.11	-0.90	0.50	-0.94
MISC.	-0.28	-0.04	0.04	-0.12	-0.40

EXHIBIT 8

INVESTMENT ADVISERS, INC.
 PERFORMANCE ATTRIBUTION ANALYSIS
 STOCK SELECTION

JULY 1987 - MAY 1990

<u>SECTOR</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>TOTAL CUMM.</u>
BASIC MAT.	1.18%	-0.94%	0.44%	-0.60%	0.07%
CAPITAL GOODS	0.07	-0.65	0.07	-0.31	-0.82
CONSUMER DUR.	-0.15	-0.68	1.80	0.00	0.96
CONSUMER NON	2.82	-3.22	-0.93	0.53	-0.89
ENERGY	-0.43	0.36	0.45	0.10	0.48
FINANCIAL	-0.32	-0.68	-1.58	0.86	-1.72
TECHNOLOGY	0.76	-0.58	3.60	-1.43	2.30
TRANSPORTATION	-0.42	-0.25	0.71	0.03	0.06
UTILITIES	0.44	-0.64	0.27	-0.42	-0.35
MISC.	0.22	0.02	0.00	0.00	0.24

EXHIBIT 9

INVESTMENT ADVISERS, INC.
HISTORICAL PORTFOLIO SECTOR WEIGHTS

	<u>CON NDUR</u>	<u>CONS DUR</u>	<u>BA MAT</u>	<u>CAP GOOD</u>	<u>ENERGY</u>	<u>TECH</u>	<u>TRANS</u>	<u>UTIL</u>	<u>FIN</u>
8401	26.2	7.1	11.1	5.2	6.0	14.1	5.4	3.2	21.7
8404	32.1	6.5	8.7	8.4	5.8	10.7	4.4	0.9	22.5
8407	28.0	7.2	9.1	10.7	5.0	12.8	3.9	3.9	19.5
8410	23.9	9.2	11.0	8.2	5.5	13.6	5.7	0.8	22.2
8501	15.2	7.5	18.3	7.6	5.1	14.1	9.7	0.9	21.5
8504	9.6	7.8	18.1	9.4	5.2	20.8	11.9	0.3	16.9
8507	10.8	6.7	14.8	9.3	5.1	21.0	11.3	1.5	19.5
8510	16.8	4.0	14.4	9.0	5.3	21.8	10.9	1.5	16.4
8601	28.6	3.9	12.6	7.7	4.1	20.5	10.4	1.3	10.7
8604	35.1	0.8	16.1	8.1	3.0	17.1	11.7	1.4	6.8
8607	41.8	0.4	17.1	10.3	1.3	13.1	8.3	0.4	7.2
8610	42.0	0.3	19.0	7.7	2.8	12.4	8.2	0.0	7.6
8701	41.8	2.6	17.2	4.7	2.8	9.5	7.8	6.7	6.9
8704	40.7	3.6	19.6	3.5	2.9	12.9	5.5	5.3	6.1
8707	45.0	3.5	19.7	4.4	3.8	15.4	1.8	5.4	1.1
8710	43.4	3.2	20.0	5.7	4.0	16.1	2.3	5.2	0.0
8801	46.9	1.7	19.5	5.9	4.1	16.0	0.6	5.3	0.0
8804	48.7	0.6	20.7	6.3	4.9	8.9	0.6	9.4	0.0
8807	38.1	0.6	18.9	7.1	6.0	13.2	3.1	10.6	2.4
8810	36.5	0.6	19.2	5.4	5.7	14.3	3.3	12.5	2.5
8901	33.7	3.0	16.5	5.5	5.4	12.6	6.5	12.1	4.6
8904	35.2	2.6	18.3	4.4	6.6	6.7	7.7	11.8	6.7
8907	43.4	0.2	12.6	7.4	7.2	4.4	4.2	15.8	4.8
8910	40.1	0.4	13.2	6.1	9.4	4.7	3.1	14.3	8.6
9001	37.9	0.4	12.5	5.1	13.5	8.2	3.5	13.9	4.9
9004	39.8	0.4	9.9	9.3	13.3	10.5	2.5	11.3	2.9
MIN	9.6	0.2	8.7	3.5	0.1	4.2	0.2	0.0	0.0
MAX	48.7	9.2	21.7	11.1	14.8	21.8	11.9	15.8	22.5
AVG	37.7	2.3	16.4	6.8	5.6	12.4	5.2	7.4	6.2
STD DEV	8.4	2.2	3.5	1.8	3.2	4.4	3.4	5.0	6.0

ACTIVE EQUITY MANAGERS

Value of Active Management Reports

Second Quarter 1990

Common stock manager returns are evaluated against the performance of customized indices constructed to represent the managers' specific investment approaches. These custom indices are commonly referred to as "benchmark portfolios." The benchmark portfolios take into account the equity market forces that at times favorably or unfavorably impact certain investment styles. Thus, benchmark portfolios are the appropriate bogeys against which to judge the managers' performance.

Manager performance relative to benchmarks is evaluated on a quarterly basis by the Equity Manager Committee of the Investment Advisory Council.

Staff Recommendations

Staff recommends the following actions concerning manager status:

- Continue IAI but perform another in-depth review in one year if performance does not improve.
- Perform an in-depth review of Forstmann Leff as part of the regular three-year review cycle.

Managers	Market Value 6/30/90 (Thousands)	Quarter Ending 6/30/90 Actual Bmrk		Year Ending 6/30/90 Actual Bmrk		Annualized Five Years Ending 6/30/90 Actual Bmrk	
Alliance	\$ 448,179	9.7%	8.5%	23.6%	14.8%	21.1%	13.2%
Concord	116,762	5.8	3.7	9.4	7.2		
Forstmann	203,181	2.9	5.0	7.6	10.5	13.7	12.6
Franklin	117,850	2.4	4.1	7.5	5.4		
GeoCapital	63,873	6.0	6.1				
IDS	194,483	7.6	5.5	24.2	11.3	16.7	15.3
IAI	98,834	5.8	5.8	15.7	14.5	14.1	15.8
Lieber & Co.	144,094	6.2	2.1	5.2	2.2	12.1	10.6
Rosenberg	121,053	3.7	4.9	11.4	11.3		
Sasco	111,135	-1.4	1.3	3.4	6.4		
Waddell & Reed	189,823	5.8	3.9	15.0	8.9	14.5	12.8
Aggregate Active*		5.8	4.9	14.2	9.9	15.7	13.4
Wilshire 5000		5.5%		12.7%		15.5%	

* Historical performance reflects composite of current managers only.

ALLIANCE CAPITAL MANAGEMENT

PORTFOLIO MANAGER: Jack Koltes

ASSETS UNDER MANAGEMENT: \$448,179,181

INVESTMENT PHILOSOPHY

Alliance searches for companies likely to experience high rates of earnings growth, on either a cyclical or secular basis. Alliance has invested in a wide range of growth opportunities from small, emerging growth to large, cyclically sensitive companies. There is no clear distinction on the part of the firm as to an emphasis on one particular type of growth company over another. However, the firm's decision-making process appears to be much more oriented toward macroeconomic considerations than is the case with most other growth managers. Accordingly, cyclical earnings prospects, rather than secular, appear to play a larger role in terms of stock selection. Alliance is not an active market timer, rarely raising cash above minimal levels.

**QUALITATIVE EVALUATION
(Reported By Exception)**

Exceptional strengths are:

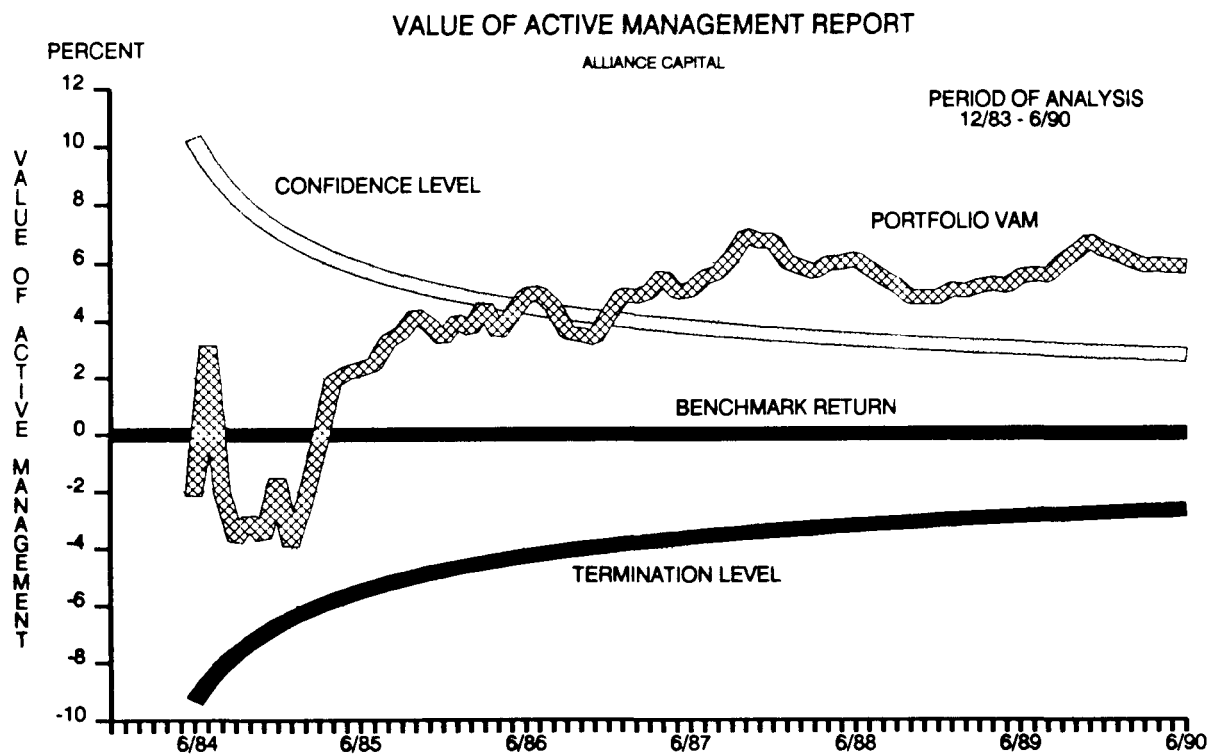
- Highly successful and experienced professionals.
- Organizational continuity and strong leadership.
- Well-acquainted with needs of large clients.
- Investment style consistently and successfully applied over a variety of market environments.

QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 1/1/84
Actual Return	9.7%	23.6%	21.1%	19.7%
Benchmark	8.5	14.8	13.2	13.1

STAFF RECOMMENDATIONS

No action required



CONCORD CAPITAL MANAGEMENT

PORTFOLIO MANAGER: Bob Boldt

ASSETS UNDER MANAGEMENT: \$116,761,901

INVESTMENT PHILOSOPHY

Concord is an opportunistic theme investor that does not limit itself to any particular group of stocks, avoiding preconceptions about where value currently lies. Concord believes that the marketplace is generally efficient but that there exist isolated opportunities. These opportunities are due to biases inherent in the traditional approaches that the majority of the investment profession uses to search for investment opportunities. Concord's non-traditional approach allows them to discover these opportunities early and to capture the total appreciation of the undervalued stocks. Concord's goal is to remain as fully invested as possible, therefore, they rarely raise cash above a minimal level.

**QUALITATIVE EVALUATION
(Reported By Exception)**

Exceptional strengths are:

- Highly successful and experienced professionals.
- Investment style consistently and successfully applied over a variety of market environments.

QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 4/1/89
Actual Return	5.8%	9.4%	N.A.	13.2%
Benchmark	3.7	7.2	N.A.	12.8

STAFF RECOMMENDATIONS

No action required.

(Vam graph will be provided for period ending 9/30/90.)

FORSTMANN LEFF ASSOCIATES

PORTFOLIO MANAGER: **Joel Leff**

ASSETS UNDER MANAGEMENT: \$203,181,168

INVESTMENT PHILOSOPHY

Forstmann Leff is a classic example of a "rotational" manager. The firm focuses almost exclusively on asset mix and sector weighting decisions. Based upon its macroeconomic outlook, the firm will move aggressively into and out of asset classes and equity sectors over the course of a market cycle. The firm tends to purchase liquid, large capitalization stocks. Forstmann Leff will make sizable market timing moves at any point during a market cycle.

QUALITATIVE EVALUATION

(Reported By Exception)

Current concerns are:

- Relatively high turnover among firm's professionals. This issue, while not serious, remains outstanding.

Exceptional strengths are:

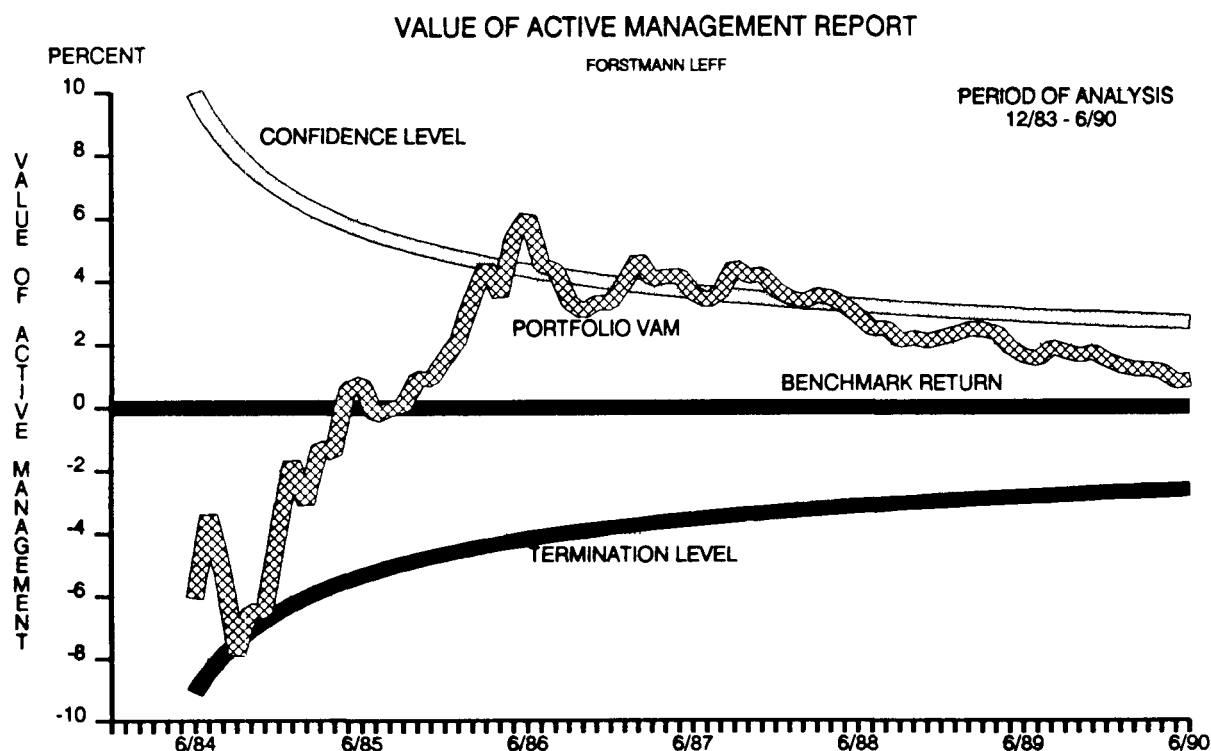
- Highly successful and experienced professionals.
- Investment style consistently and successfully applied over a variety of market environments.
- Well-acquainted with needs of large clients.

QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 1/1/84
Actual Return	2.9%	7.6%	13.7%	13.5%
Benchmark	5.0	10.5	12.6	12.4

STAFF RECOMMENDATIONS

Perform an in-depth review as part of the regular three-year review cycle.



FRANKLIN PORTFOLIO ASSOCIATES

PORTFOLIO MANAGER: John Nagorniak

ASSETS UNDER MANAGEMENT: \$117,849,933

INVESTMENT PHILOSOPHY

Franklin's investment decisions are quantitatively driven and controlled. The firm's stock selection model uses 30 valuation measures covering the following factors: fundamental momentum, relative value, future cash flow, and economic cycle analysis. The firm believes that a multi-dimensional approach to stock selection provides greater consistency than reliance on a limited number of valuation criteria. Franklin's portfolio management process focuses on buying and selling the right stock rather than attempting to time the market or pick the right sector or industry groups. The firm remains fully invested at all times.

QUALITATIVE EVALUATION

(Reported by Exception)

Exceptional strengths are:

- Familiar with the needs of large institutional clients.
- Firm's investment approach has been consistently applied over a number of market cycles.

QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 4/1/89
Actual Return	2.4%	7.5%	N.A.	14.0%
Benchmark	4.1	5.4	N.A.	11.3

STAFF RECOMMENDATIONS

No action required.

(Vam graph will be provided for period ending 9/30/90.)

GEOCAPITAL CORP.

PORTFOLIO MANAGER: Barry Fingerhut

ASSETS UNDER MANAGEMENT: \$63,872,543

INVESTMENT PHILOSOPHY

GeoCapital invests primarily in small capitalization equities with the intent to hold them as they grow into medium and large capitalization companies. The firm uses a theme approach and an individual stock selection analysis to invest in the growth/technology and intrinsic value areas of the market. In the growth/technology area GeoCapital looks for companies that will have above average growth due to a good product development program and limited competition. In the intrinsic value area, the key factors in this analysis are the corporate assets, free cash flow, and a catalyst that will cause a positive change in the company. The firm generally stays fully invested, with any cash positions due to the lack of attractive investment opportunities.

QUALITATIVE EVALUATION

(Reported by Exception)

Exceptional strengths are:

- Investment style consistently and successfully applied over a variety of market environments.
- Attractive, unique investment approach.
- Highly successful and experienced professionals.

QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 4/1/90
Actual Return	6.0%	N.A.	N.A.	6.0%
Benchmark	6.1	N.A.	N.A.	6.1

STAFF RECOMMENDATIONS

No action required

(Vam graph will be provided for period ending 9/30/91.)

IDS ADVISORY

PORTFOLIO MANAGER: Mitzi Malevich

ASSETS UNDER MANAGEMENT: \$194,483,386

INVESTMENT PHILOSOPHY

IDS employs a "rotational" style of management, shifting among industry sectors based upon its outlook for the economy and the financial markets. The firm emphasizes primarily sector weighting decisions. Moderate market timing is also used. Over a market cycle IDS will invest in a wide range of industries. It tends to buy liquid, large capitalization stocks. While IDS will make occasional significant asset mix shifts over a market cycle, the firm is a less aggressive market timer than most rotational managers.

QUALITATIVE EVALUATION
(Reported By Exception)

Current concerns are:

- Growth plan not in place.
- Account load for portfolio managers is large.

These items, while not serious, should continue to be monitored.

Exceptional strengths are:

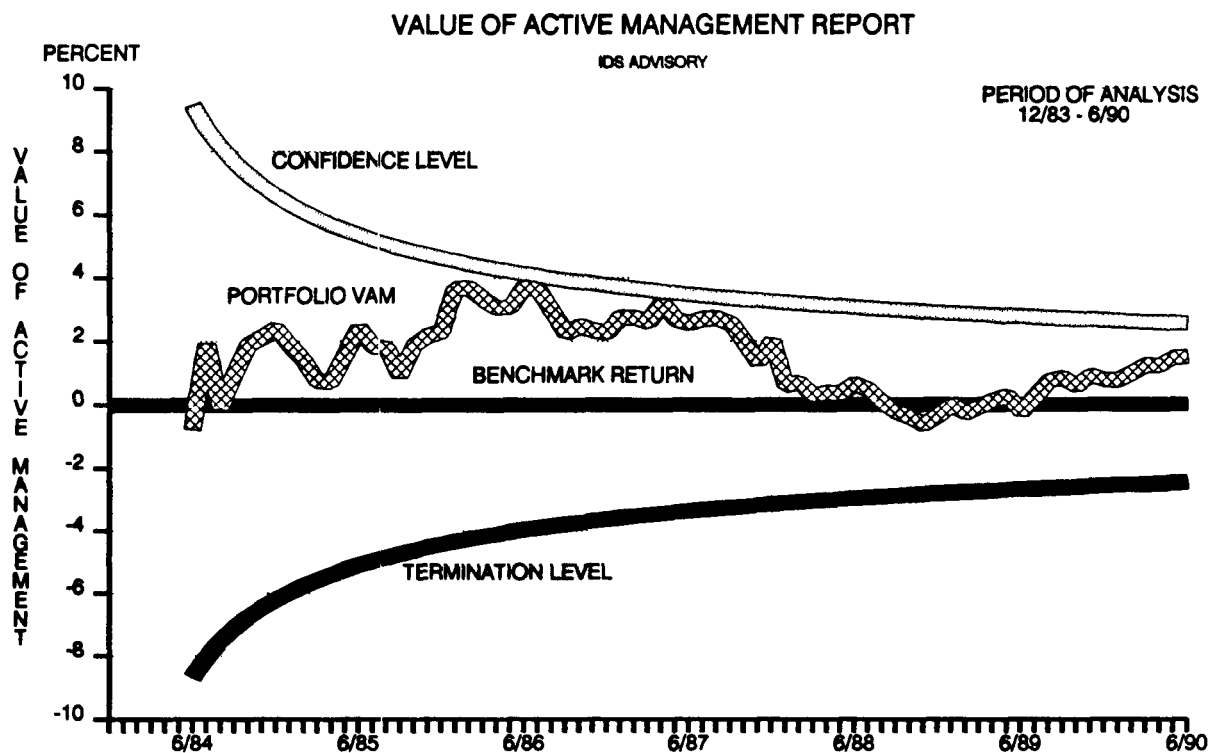
- Investment style consistently and successfully applied over a variety of market environments.

QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 1/1/84
Actual Return	7.6%	24.2%	16.7%	16.8%
Benchmark	5.5	11.3	15.3	15.0

STAFF RECOMMENDATIONS

No action required.



INVESTMENT ADVISERS

PORTFOLIO MANAGER: Charles Webster

ASSETS UNDER MANAGEMENT: \$98,883,505

INVESTMENT PHILOSOPHY

Investment Advisers is a "rotational" manager. Its macroeconomic forecasts drive its investment decision-making. The firm emphasizes market timing and sector weighting decisions. Investment Advisers will invest in a wide range of industries over a market cycle. It tends to hold liquid, medium to large capitalization stocks. The firm is an active market timer, willing to make gradual but significant asset mix shifts over a market cycle.

QUALITATIVE EVALUATION
(Reported By Exception)

Current concerns are:

- Growth plan not in place.
- Slow response to administrative information requests from SBI staff

The items, while not serious, should continue to be monitored.

Exceptional strengths are:

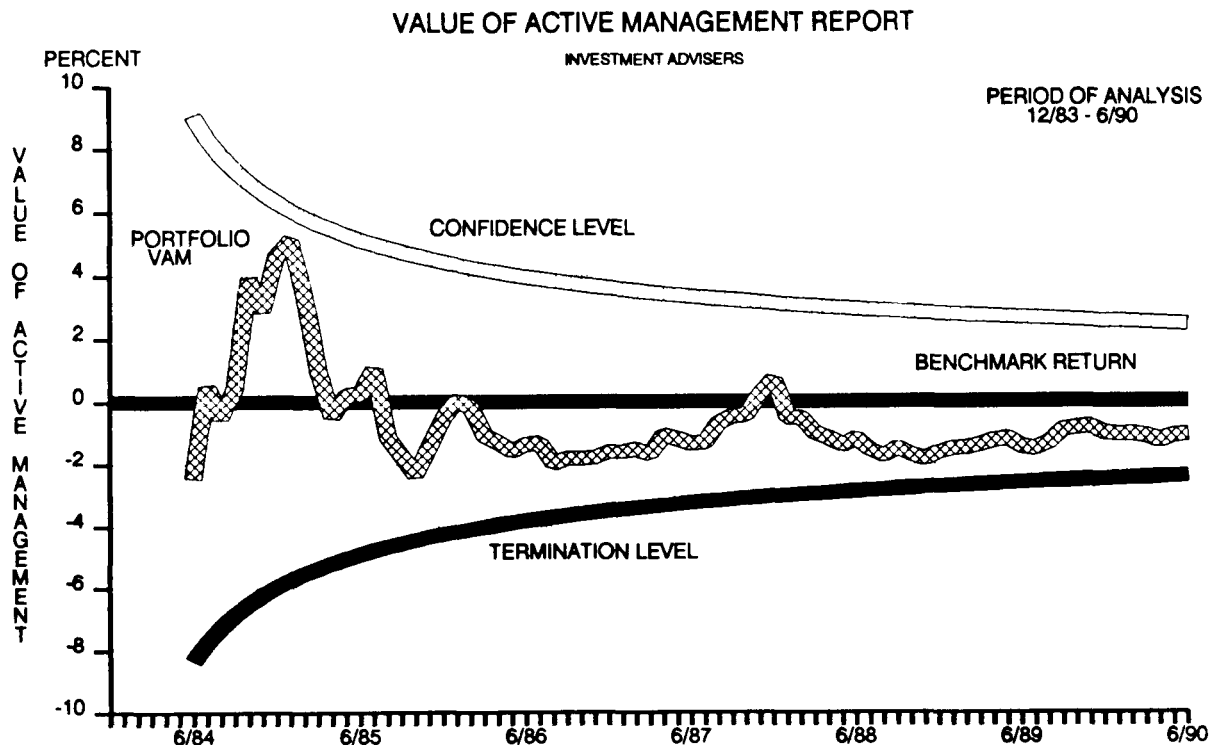
- Investment style consistently applied over a variety of market environments.

QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 1/1/84
Actual Return	5.8%	15.7%	14.1%	14.2%
Benchmark	5.8	14.5	15.8	15.4

STAFF RECOMMENDATIONS

Continue IAI but perform another in-depth review in one year if performance does not improve.



LIEBER & COMPANY

PORTFOLIO MANAGER: Stephen Lieber, Nola Falcone

ASSETS UNDER MANAGEMENT: \$144,094,391

INVESTMENT PHILOSOPHY

Lieber and Co. seeks to identify investment concepts that are either currently profitable, or likely to become so in the near future, yet whose prospects are not reflected in the stock prices of the companies associated with the concepts. The firm focuses on macroeconomic trends and specific product developments within particular industries or companies. Stock selection concentrates on well-managed, small-to-medium sized companies with high growth and high return on equity. Particularly attractive to Lieber are takeover candidates or successful turn around situations. The firm generally is fully invested, with any cash positions the result of a lack of attractive investment concepts.

QUALITATIVE EVALUATION

(Reported by Exception)

Current concerns are:

- Firm is unfamiliar with needs of large clients.

This item, while not serious, warrants additional monitoring.

Exceptional strengths are:

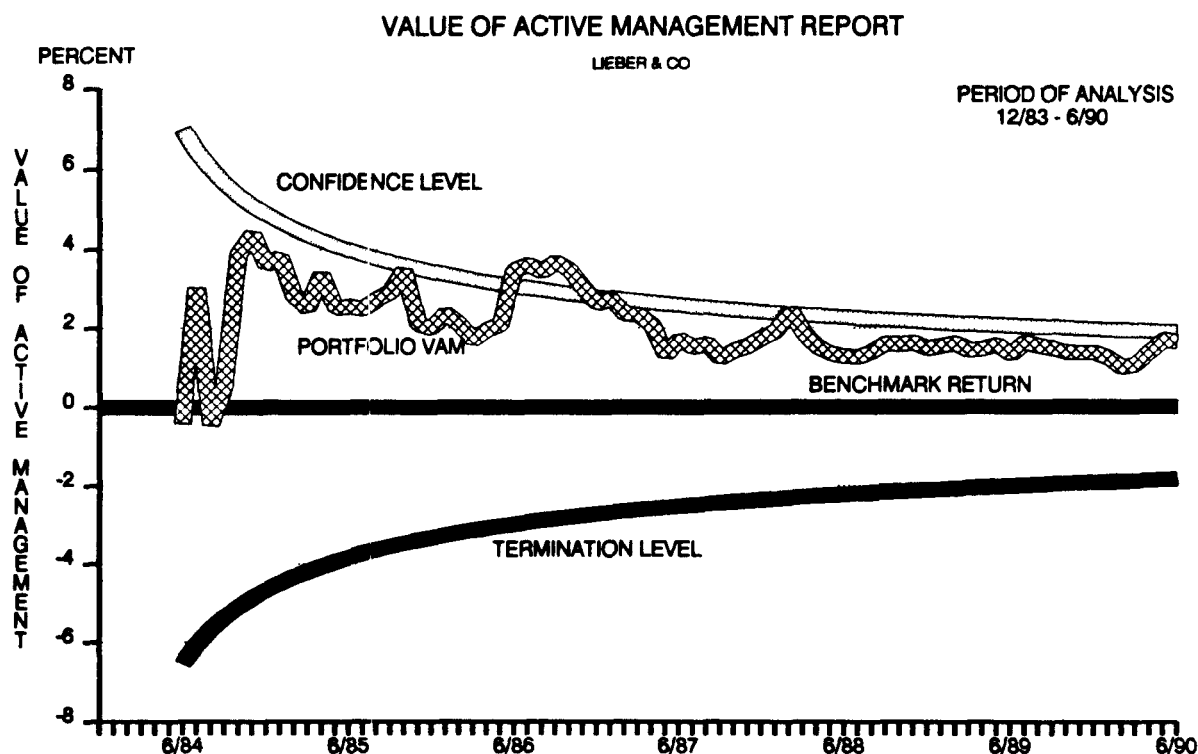
- Organizational continuity and strong leadership.
- Attractive, unique investment approach.
- Investment style consistently and successfully applied over a variety of market environments.
- Extensive securities research process.

QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 1/1/84
Actual Return	6.2%	5.2%	12.1%	12.2%
Benchmark	2.1	2.2	10.6	10.4

STAFF RECOMMENDATIONS

No action required.



ROSENBERG INSTITUTIONAL EQUITY MANAGEMENT

PORTFOLIO MANAGER: Ken Reid

ASSETS UNDER MANAGEMENT: \$121,062,758

INVESTMENT PHILOSOPHY

Rosenberg uses quantitative techniques to identify stocks that are undervalued relative to other similar companies. The firm's computerized valuation system analyzes accounting data on over 3,500 companies. Each company's separate business segments are compared to similar business operations of other companies. These separate valuations are then integrated into a single valuation for the total company. Stocks with valuations that are significantly below their current market price are candidates for purchase. The firm remains fully invested at all times.

**QUALITATIVE EVALUATION
(Reported by Exception)**

Exceptional strengths are:

- Attractive, unique investment approach.
- Highly successful and strong leadership.

QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 4/1/89
Actual Return	3.7%	11.4%	N.A.	16.5%
Benchmark	4.9	11.3	N.A.	16.0

STAFF RECOMMENDATIONS

No action required

(Vam graph will be provided for period ending 9/30/90.)

SASCO CAPITAL INC.

PORTFOLIO MANAGER: Bruce Bottomley

ASSETS UNDER MANAGEMENT: \$111,134,726

INVESTMENT PHILOSOPHY

Sasco is a long term investor that concentrates exclusively on stock selection. Sasco looks for companies that are selling at a discount to both their asset value and future earnings power. Sasco analyzes a corporation's individual business segments and invests in those that are undergoing major fundamental and structural change to increase their value. Sasco does not attempt to time the market. The firm strives to remain fully invested at all times.

QUALITATIVE EVALUATION

(Reported By Exception)

Exceptional strengths are:

- Investment style consistently and successfully applied over a variety of market environments.
- Attractive, unique investment approach.

QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 4/1/89
Actual Return	-1.4%	3.4%	N.A.	8.8%
Benchmark	1.3	6.4	N.A.	10.3

STAFF RECOMMENDATIONS

No action required.

(Vam graph will be provided for period ending 9/30/90.)

WADDELL & REED

PORTFOLIO MANAGER: Henry Herrman

ASSETS UNDER MANAGEMENT: \$189,822,624

INVESTMENT PHILOSOPHY

Waddell & Reed focuses its attention primarily on smaller capitalization growth stocks, although the firm has been very eclectic in its choice of stocks in recent years. However, the firm has demonstrated a willingness to make significant bets against this investment approach for extended periods of time. The firm is an active market timer and will raise cash to extreme levels at various points in the market cycle.

QUALITATIVE EVALUATION

(Reported By Exception)

Exceptional strengths are:

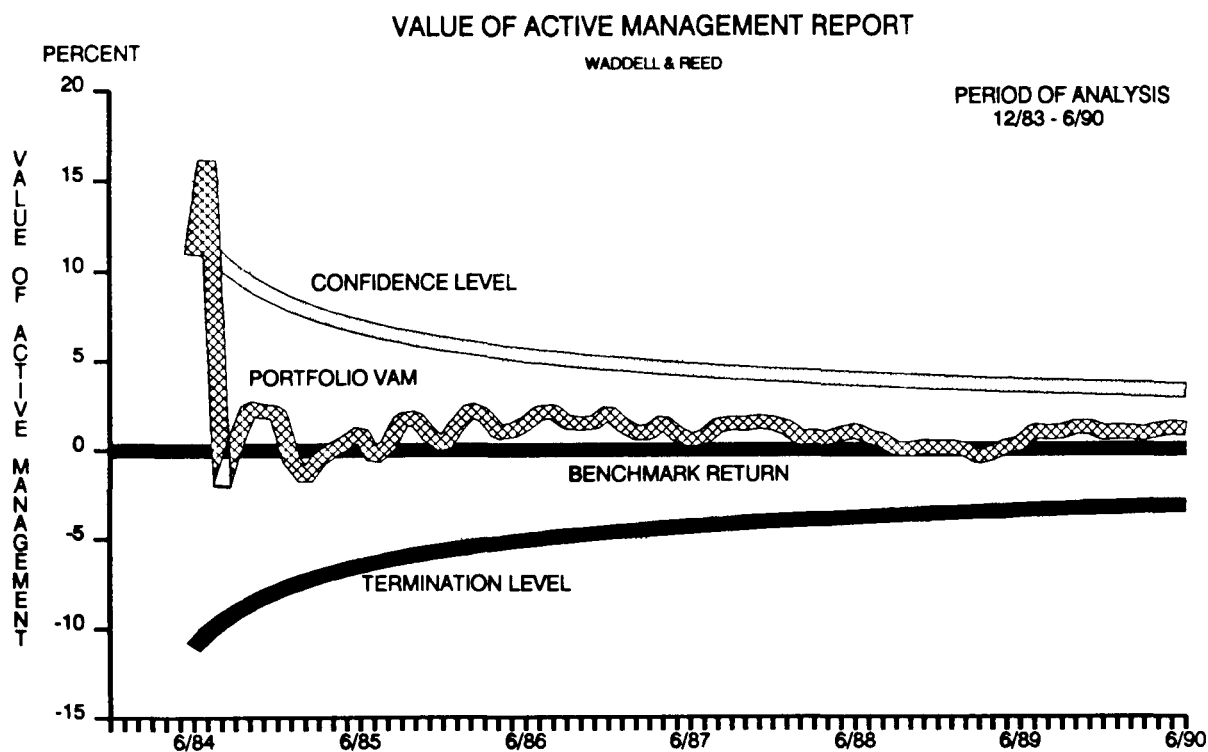
- Highly successful and experienced professionals.

QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 1/1/84
Actual Return	5.8%	15.0%	14.5%	12.9%
Benchmark	3.9	8.9	12.8	11.3

STAFF RECOMMENDATIONS

No action required.



POST FUND STOCK SEGMENT

PORTFOLIO MANAGER: SBI Staff

ASSETS UNDER MANAGEMENT: \$511,425,330

INVESTMENT PHILOSOPHY

The Post Fund Stock Segment utilizes a disciplined portfolio management process which relies on quantitative measures of investment characteristics to screen for investment opportunities. Two distinct methodologies are employed to moderate portfolio return volatility and provide diversification. Both methodologies emphasize traditional value criteria. One methodology, Abel Noser, emphasizes low price/earnings and low price/book ratios. The other, R.F. Fargo, focuses on high relative yield. Historically, these value characteristics have provided superior relative returns in down and early cycle markets. The portfolio maintains a fully invested position at all times.

QUALITATIVE EVALUATION
(Reported By Exception)

Current concerns are:

- The fund is using a relatively new benchmark.

This item, while not serious, should continue to be monitored.

Exceptional strengths are:

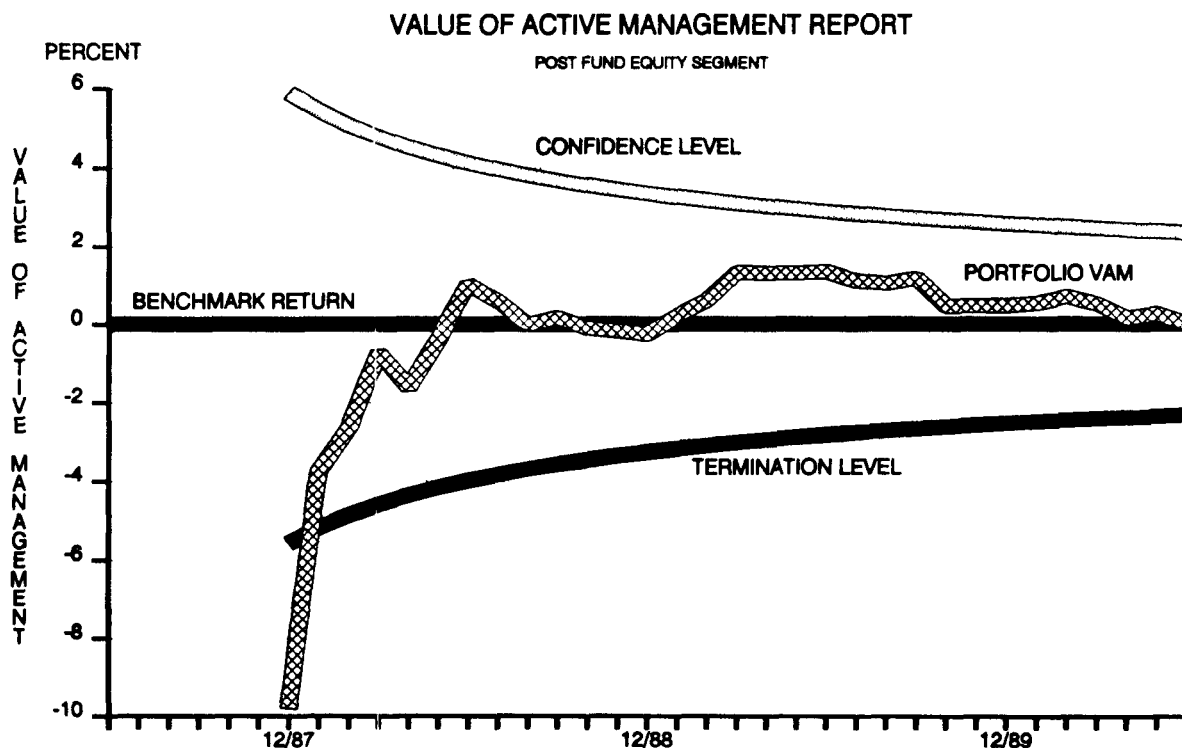
- The investment methodologies used in the portfolio have been applied successfully over various market environments.

QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 7/1/87
Actual Return	1.2%	2.9%		6.5%
Benchmark	2.6	5.7		6.5

STAFF RECOMMENDATIONS

No action required.



Tab E

MEMBERS OF THE BOARD
GOVERNOR RUDY PERPICH
STATE AUDITOR ARNE H. CARLSON
STATE TREASURER MICHAEL A. McGRATH
SECRETARY OF STATE JOAN ANDERSON GROWE
ATTORNEY GENERAL HUBERT H. HUMPHREY III



EXECUTIVE DIRECTOR
HOWARD J. BICKER

STATE OF MINNESOTA
STATE BOARD OF INVESTMENT

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Tel (612) 296-3328
FAX (612) 296-9572

September 7, 1990

TO: Members, State Board of Investment
Members, Investment Advisory Council

FROM: Fixed Income Manager Committee

SUBJECT: Committee Report

The IAC Fixed Income Manager Committee met on August 21, 1990 and reviewed the following items:

- o Review of Manager Performance
- o In-depth Review of Western Asset Management
- o Discussion on the Structure of the Active Manager Program

None of the items require action by the Board at this time.

INFORMATION ITEMS:

1) Review of Enhanced Index Manager Performance

Both enhanced index managers underperformed the Salomon Broad Investment Grade (BIG) Index for the quarter ending June 30, 1990 (Lincoln 3.48%, Fidelity 3.58%, Salomon BIG 3.62%).

Since inception in July 1988, both managers have essentially matched the performance of the index. (Lincoln 9.88%, Fidelity 9.95%, Salomon BIG 9.94%). The performance of both managers is within expectations for the two year cumulative period.

2) Review of Active Manager Performance

The Committee reviewed the performance reports for the active bond managers. A copy of the value of active management (VAM) report for each manager is at the end of this tab section.

The active manager group outperformed both the Salomon BIG and its aggregate benchmark for the quarter (Managers 3.7%, Benchmark 3.6%, Salomon BIG 3.6%). The managers in aggregate had a slightly longer duration than the benchmark over a period when interest rates fell. This accounted for the above-market return.

The current manager group underperformed its benchmark and the market for the past year but outperformed both standards over the last five years.

3) In-Depth Review of Western Asset

At its last meeting, the Committee supported a recommendation by staff that it conduct an in-depth review of Western Asset Management. The staff's detailed report is attached to this tab section. The following is a summary of the major findings:

- o Western believes in long-term decisions and avoids large short-run portfolio shifts. The firm uses economic analysis to make interest rate and yield curve forecasts. These forecasts are used to add value to the portfolio through appropriate duration, sector, maturity and issue selections. Western has generally followed their stated investment philosophy.
- o Western's benchmark is overweighted in mortgages corporates and cash, is underweighted in governments and has a duration equal to the market. Staff believes the benchmark is appropriate for the firm.
- o Western has outperformed both its benchmark and the Salomon BIG (Western 14.7%, Benchmark 13.4%, Salomon BIG 13.6% annualized since inception). Western has added value through correct duration, sector, maturity and quality decisions. However, most of Western's added returns are due to their correct duration decision.
- o Western could be considered as a potential enhanced index manager in future manager searches. The firm's investment approach would change very little in this role since they make very limited duration and sector bets.

The Committee concurs with staff's conclusion that Western should continue as a manager for the SBI and finds no cause for concern about the firm at the present time.

4) Discussion on the Structure of the Active Manager Program

The Committee discussed possible changes in the structure of the active bond manager program. Currently, staff are researching a specialist approach, i.e. managers would be retained for their expertise in a particular sector of the bond market (e.g. mortgages, corporates, derivatives, etc.) rather than for broad coverage of the entire market.

The Committee was also interested in staff's efforts to identify potential manager candidates. Staff has increased its activity in this area and will begin to report its progress to the Committee on an on-going basis.

**Detailed Review of
Western Asset Management**

- I. ORGANIZATION
- II. INVESTMENT PHILOSOPHY
 - A. Stated Philosophy
 - B. Investment Process
 - C. Implementation of Philosophy
- III. BENCHMARK CONSTRUCTION PROCESS
- IV. PERFORMANCE ANALYSIS
 - A. Benchmark Explanatory Power
 - B. Portfolio Performance Relative to Benchmark and the Salomon BIG Index
 - C. Portfolio Performance Attribution
- V. HISTORY OF SBI ACTION
- VI. CONCLUSION

EXHIBITS

- 1- Sector Breakdown
- 2- Duration and Maturity Distribution
- 3- Quality Distribution
- 4- Portfolio Cell Weights
- 5- Performance Comparisons
- 6- Duration vs. Spot Rate
- 7- Duration Analysis Graph
- 8- Yearly Sector Returns
- 9- VAM Analysis

WESTERN ASSET REVIEW

I. ORGANIZATION

A. Ownership

Western Asset Management initially was owned by First Interstate. On January 1, 1987 Western was sold to Legg Mason, Inc., a Baltimore based company. Legg Mason, Inc. provides securities brokerage, investment advisory, and corporate and public finance services to individuals, institutions, corporations, and municipalities through 75 offices in 18 states and the District of Columbia. Their investment advisory subsidiaries managed more than \$8 billion of equity and fixed income assets for clients.

B. Professional Staff

Western employs seven portfolio managers, three analysts, and one economist. The portfolio managers trade their own portfolios and form the Investment Strategy Group that determines portfolio strategy and compliance for all portfolios.

Ed Robie is the SBI's contact and portfolio manager at Western. He joined Western on October 1, 1984 as a Vice President. Prior to joining Western, Mr. Robie managed fixed income portfolios at Mellon Bank and was the Director of Employee Benefit Fund Investments for LTV Corporation.

C. Fixed Income Assets Under Management (Tax Exempt Discretionary)

FIXED INCOME ASSETS UNDER MANAGEMENT
(\$ MIL)

<u>December 1984</u>		<u>December 1985</u>		<u>December 1986</u>		<u>December 1987</u>		<u>December 1988</u>		<u>December 1989</u>	
# of Accts	Market Value	# of Accts	Market Value	# of Accts	Market Value	# of Accts	Market Value	# of Accts	Market Value	# of Accts	Market Value
26	\$2,359	29	\$2,740	37	\$3,348	46	\$4,336	53	\$5,519	61	\$6,772

Western has been able to handle the increased account load by hiring new portfolio managers. The number of managers has increased from five in 1984 to seven in 1990.

Western manages only fixed income accounts and plans to limit their growth to 50 active, 25 index, and 25 cash accounts.

D. Personnel Turnover

In addition to the hirings, Western has lost two portfolio managers since the SBI hired them. Win Neuger left in November, 1984. This had little affect on the SBI's portfolio since the SBI hired them in July, 1984. The portfolio has performed well since Win left.

Tom Cooper, Director of Research, left in May 1990 and joined Goldman Sachs in New York. This will have little impact on management of the SBI portfolio since Tom's expertise was in derivatives. Western employs derivatives sparingly in the SBI portfolio. In addition, Western added Ken Leech to replace Tom. According to Western, Ken Leech has more experience than Tom Cooper in the derivative area.

II. INVESTMENT PHILOSOPHY

A. Stated Philosophy

Western's goal is to provide stable bond returns to reduce the volatility of total portfolio returns.

Western recognizes the importance of interest rates on fixed income portfolio returns but believes it is difficult to forecast short-run movements in rates. However, Western does try to predict long-run interest rate trends. Western also adds value through appropriate sector decisions. Based on economic analyses, Western will overweight particular sectors, shifting these weights as economic expectations warrant. Western places less importance on maturity decisions and issue selection. Western stresses the long-term nature of all its decisions and avoids large short-run portfolio shifts.

B. Investment Process

To implement their stated philosophy, Western employs a group strategy using economic analysis and interest rate forecasting.

Western's Fixed Income Strategy Group is composed of the firm's portfolio managers. Its decisions are made on a consensus basis. The group meets informally as needed to modify the firm's economic and interest rate forecast and its investment strategy. They try to identify the current point of the economy in the business and interest rate cycles and project trends over the next six months. This includes projecting trends in GNP, inflation, money and credit, U.S. fiscal policy, and the international environment. Using this analysis, the group tries to forecast the position and shape of the

yield curve over this period, determines returns for various maturities, and then selects a maturity target for the portfolio. For instance, if this analysis shows the best returns will occur in maturities of 5 to 10 years, Western's portfolio will be overweighted in this maturity sector.

The economic, interest rate and yield curve forecasts also are used to select sector and quality weightings. Projected yield spreads are compared with historical norms. As the economy peaks, yield spreads between high quality and low quality issues are historically at their lowest levels. The high quality issues are most attractive when this happens and Western tends to move into governments. Conversely, as the economy troughs, yield spreads are high making the lower quality issues more attractive. The portfolio then emphasizes lower quality corporates.

In security selection, the firm identifies undervalued issues using their economic and interest rate forecasts. The firm tries to identify special situations that might result in misvaluations (e.g., issues created by mergers). Also, when selecting issues, Western's credit analysts try to avoid negative surprises in the portfolio by combining their own research with outside credit rating organizations. They do not try to anticipate rating changes.

C. Implementation of Philosophy

Western has generally followed their stated investment philosophy. They have not made significant duration bets. Their duration has ranged between 4.71 and 5.40 years (see Exhibit 2). Even though the duration has held constant, Western has made maturity/duration shifts. For example, Exhibit 2 shows the percent of the portfolio in the 3-5 year duration range has varied between 9% and 52%.* Also, Western has tried to add value through sector decisions (see Exhibits 1 and 3). For example, the value of government securities in the portfolio has ranged from 12% to 43% (see Exhibit 1). Finally, Western has avoided large short-run portfolio shifts. For instance, they gradually increased their holdings of government securities from 14% to 34% during the year ending 3/31/88 (see Exhibit 1).

* Maturity distributions were available only for 1984 and 1985, duration distributions are used from 1985 to the present.

III. PORTFOLIO BENCHMARK CONSTRUCTION

Western developed their own benchmark and believes that it is a passive portfolio that best depicts their long-run strategy and average exposures to market characteristics. The securities in this portfolio are selected from the Salomon Brothers Broad Investment-Grade Bond Index (Salomon BIG). Exhibit 4 shows the benchmark sector breakdown. Returns for the benchmark are calculated by summing the weighted returns for each sector.

The following table shows Western's benchmark sector breakdown compared to the Salomon BIG as of May 31, 1990.

SECTOR BREAKDOWN

<u>SECTOR</u>	<u>BENCHMARK</u>	<u>SALOMON BIG INDEX</u>	<u>OVER/ UNDER +/-</u>
GOVERNMENTS & AGENCIES	20%	54%	-34
Treasury	15	45	-30
Agency	5	9	- 4
MORTGAGE INSTRUMENTS	35%	28%	+ 7
FHA	15	1	+14
GNMA	10	12	- 2
FHLMC	5	8	- 3
FNMA	5	6	- 1
CONVENTIONAL	0	1	- 1
CORPORATES	40%	18%	+22
Industrial	15	5	+10
Financial	10	6	+ 4
Utility	10	5	+ 5
Yankee	5	2	+ 3
CASH	5%	0%	+ 5

DURATION BREAKDOWN

DURATION (YRS)	<u>BENCHMARK</u>	SALOMON BIG <u>INDEX</u>	OVER/ <u>UNDER</u>
0-1	6.4%	0%	+6.4
1-3	17.9	29	-11.1
3-5	36.9	34	-2.9
5-7	21.9	20	+1.9
7+	16.9	17	-0.1
Avg. Duration	5.6 Yrs	5.6 Yrs	0.0

1. Governments and Agencies (Underweighting: 34%)

Western under-allocates governments and agencies because they do not provide the yields available from other sectors. Western uses this sector to diversify the portfolio and to change portfolio duration when necessary. Western's actual holdings in governments and agencies has averaged 23%.

2. Mortgage Instruments (Overweighting: 7%)

Western allocates more to mortgages because they provide higher yields than other sectors. Western also thinks mortgages are attractive due to the market inefficiencies created by the continual introduction of new types of mortgage securities. Western allocates the subsectors according to these same reasons. For example, the FHA subsector is overweighted because Western believes there are more market inefficiencies in this area. Western's actual holdings in mortgages has averaged 37%.

3. Corporates (Overweighting: 22%)

Western overweights this sector for two reasons. First, they think inefficiencies in this sector (i.e., credit perception, structural qualities, and technical factors) create opportunities. Second, the sector has higher yields-to-maturity than other sectors. Again, the corporate subsector weights are established using the same reasoning. Western's actual holdings in corporates has averaged 31%.

4. Cash equivalents (Overweighting: 5%)

Western has cash for investment opportunities and for adjusting duration. Western's actual holdings in cash has averaged 9%.

5. Duration (Equal to the Salomon BIG)

Western keeps the benchmark duration equal to the market duration. However, the maturity distribution used to obtain this duration is different than the market. Since Western's benchmark has cash for investment opportunities, there is overweighting in the 0-1 year duration sector. To keep the benchmark duration equal to the market duration with this large cash position, the benchmark is underweighted in the 1-3 year duration sector and slightly overweighted in the longer duration sectors.

IV. PERFORMANCE ANALYSIS

A. Benchmark Explanatory Power

1. Comparison of portfolio returns to the benchmark and the Salomon BIG Index.

Since a benchmark reflects the manager's investment style, it should better explain the manager's returns than a broad market index. The standard deviation of monthly returns and the information ratio are two measures of the benchmark's explanatory power.

- o The standard deviation of actual returns minus benchmark returns (VAM) should be less than the standard deviation of actual returns minus the index returns (EXM).
- o The information ratio (IR) is the ratio of the cumulative annualized VAM to the annual standard deviation of the VAM. The absolute value of the IR should be greater for the actual versus the index.

	(VAM) Manager Actual vs. Benchmark	(EXM) Manager Actual vs. Salomon Brothers BIG Index
<u>For Time Period 7/1/84 to 6/30/90</u>		
Cumulative Annualized Return	1.126	0.951
Annualized Standard Deviation	1.710	1.714
Information Ratio	0.659	0.555
Information Ratio t-statistic	1.605	1.353
Percentage of Months Return > 0	58.3%	54.2%

The following observations are made from the table above:

- o Western outperformed both its benchmark and the Salomon BIG.
- o Western outperformed its benchmark on a monthly basis more often than it outperformed the Salomon BIG.
- o The standard deviation of the actual vs. benchmark is the equal to the standard deviation of the actual vs. index.
- o The absolute value of the information ratio for actual vs. benchmark is higher than the actual vs. index.
- o The IR t-statistic suggests that the outperformance of both the benchmark and the Salomon BIG is statistically significant.

These findings show that Western has performed well. However, they do not show that Western's benchmark is better at explaining Western's returns than the market. The VAM and EXM standard deviations are the same and there is little difference in IR values. The reasons for this are discussed more fully in the following section.

2. Residual Correlations

Correlations between the manager's actual portfolio returns versus those of the market (EXM), the manager's benchmark returns versus those of the market (MFT) and the manager's VAM are useful measures of benchmark explanatory power. A valid benchmark should exhibit a positive correlation between EXM and MFT. That is, when the manager's benchmark (or investment style) performs well relative to the market, the manager's portfolio also should do well versus the market. On the other hand, there should be no correlation between MFT and VAM with a valid benchmark. In this instance, the manager's ability to add value relative the benchmark should not be affected by the performance of the benchmark (i.e., style) relative to the market.

**WESTERN
Residual Correlation Matrix**

	<u>EXM</u>	<u>MFT</u>	<u>VAM</u>
Portfolio vs. market (EXM)	1.000		
Benchmark vs. market (MFT)	0.005	1.000	
Portfolio vs. benchmark (VAM)	0.985	-0.166	1.000

There is no correlation between EXM and MFT. The correlation between VAM and MFT is slightly negative. No conclusion about the explanatory power of Western's benchmark can be drawn from this analysis. This is probably because the market and the benchmark have equivalent durations. An estimated 80-85% bond returns are explained by interest rate moves. Since Western's benchmark and the market have the same duration, both explain 80-85% of the movement in the actual portfolio. This shows why statistically, the benchmark is no better explaining returns than the market. However, as shown in the Portfolio Benchmark Construction section, Western's investments more closely resemble their benchmark; they underweight governments and overweight mortgages and corporates. Therefore, qualitatively, their current benchmark is a better measure of their investment style than the market.

B. Portfolio Performance Relative to the Benchmark and the Salomon BIG Index

On a cumulative basis, Western's benchmark returns have lagged the broad index. However, Western's portfolio has outperformed both its benchmark and the Salomon BIG. Exhibit 9 shows the VAM chart comparing Western's performance to its benchmark. Western has performed well relative to its benchmark and the Salomon BIG (see Exhibit 5).

C. Portfolio Performance Attribution

Quantitative fixed income performance attribution is difficult partly due to pricing problems inherent in bond portfolios. Additionally, software has not been developed that solves all pricing difficulties and performs performance attribution. However, examining past portfolios gives a qualitative indication where a manager adds value.

Generally, Western has added value by:

- o adjusting portfolio duration in anticipation of interest rate moves.

- o over/under weighting various sectors to make gains from yield spreads.
- o over/under weighting maturities to make gains from changes in the yield curve.

DURATION ANALYSIS

Interest rate movements account for a majority of bond portfolio returns. Exhibit 6 shows Western's portfolio duration, market and benchmark duration, and the ten year spot rates. This Exhibit shows that Western's duration is longer than the benchmark and interest rates have declined. Exhibit 7 shows graphically Western's duration vs. interest rates. This analysis assumes that movements of the 10 year spot rates are representative of interest rate movements in general.

Western's returns in Exhibit 5 show that Western has added value using duration. Their longer duration than the market has enhanced their performance since interest rates have declined overall since 1984. However, in 1987 and the beginning of 1990, interest rates increased. During both these time periods, Western has underperformed both their benchmark and the Salomon BIG.

SECTOR ANALYSIS, PORTFOLIO WEIGHTINGS RELATIVE TO THE BENCHMARK

Exhibit 8 shows the yearly sector returns from 1985 through 1990. This table shows that mortgages have outperformed all other sectors and Western, on average, was overweighted in mortgages during this time period. This overweighting enhanced portfolio returns (see Exhibit 1).

Western also was overweighted, on average, in Treasuries/Agencies. This decreased portfolio returns relative to the benchmark since this sector had the lowest returns. However, it appears that Western was underweighted in treasuries at correct times. For instance, in 1985, Western had its smallest position in treasuries and largest in mortgages (see Exhibit 1). Mortgages outperformed treasuries by 5.22% during 1985.

Finally, Western has on average been underweighted in corporate securities. This decreased overall performance since corporates outperformed both treasuries and cash and both of these sectors were overweighted. However, most of the corporates in the portfolio were rated A or Baa. Both of these sectors outperformed the higher quality corporate bonds. (See Exhibit 8)

MATURITY STRUCTURE

As Exhibit 2 shows, Western has tried to add value by changing the maturity/duration distribution of their portfolio. Although the duration of the portfolio has changed little, Western changed maturities to take advantage of changes in the yield curve. A typical example occurred in the fourth quarter of 1989. During this time, intermediate and long maturities outperformed shorter maturities as the yield curve normalized from its inverted position. Western's emphasis on longer intermediates helped performance since 5% of the securities in the portfolio had maturities of 7-10 years and 57% had maturities of 10+ years. Returns along the Treasury yield curve are summarized in the table below.

1989 FOURTH QUARTER RETURNS

<u>MATURITY</u>	<u>RETURN</u>	<u>WEIGHTING</u>
1-3 Yrs.	2.8%	10%
3-7 Yrs.	3.6%	28%
7-10 Yrs.	4.2%	5%
10+ Yrs.	4.7%	57%

PERFORMANCE ATTRIBUTION SUMMARY

Although it appears Western has added value through sector and maturity decisions, staff believes Western has added most of its value through its correct duration decision. When Western was hired, they thought interest rates were on a long term (5-10 years) decline. Therefore, they have kept the duration longer than the benchmark. As stated previously, this has added value in every year but 1987 when rates increased.

V. HISTORY OF SBI ACTION

- o In July 1984, Western received \$150,000,000.
- o In July 1987, \$92,000,000 was taken from Western and given to the newly hired semi passive managers (Lincoln and Fidelity).
- o In October 1989, Western received an additional \$50,000,000 due to rebalancing activity in the Basic Retirement Funds.
- o In July, 1990, Western received \$105,000,000 when Morgan Stanley was terminated as an active manager.

VI. CONCLUSION

Staff concludes that SBI's relationship with Western should be continued. This review shows that Western has outperformed both their benchmark and the Salomon BIG. Additionally, their benchmark appears to be a more appropriate measure of their investment style than the Salomon BIG.

Staff recommends that Western be considered as a potential enhanced index manager in future manager searches. Their current style would change very little in this role since they already make limited duration and sector bets.

EXHIBIT 1

SECTOR BREAKDOWN

DISTRIBUTION OF ASSETS (% OF MARKET VALUE)	1990				1989				1988				1987				1986				1985				1984				
	BCMWK	AVG.	Q1	Q2	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
GOVERNMENTS	20	23	40	43	38	29	25	23	28	30	34	23	17	15	14	20	21	28	26	20	15	15	12	16	16	17	17	17	17
TREASURIES	15	15	31	33	31	24	20	18	19	19	28	16	8	6	5	9	10	13	14	9	7	12	12	6	5	6	6	6	6
AGENCIES	5	8	9	10	7	5	5	5	9	11	6	7	9	9	9	11	11	15	12	11	8	3	0	10	11	11	11	11	11
MORTGAGES	35	37	23	25	25	25	29	29	28	28	22	37	43	41	41	42	43	43	44	52	50	48	51	47	32	31	31	31	31
FHA PROJECT POOLS	15	11	8	8	8	10	10	10	11	10	7	6	9	9	9	10	10	7	13	13	13	13	18	17	10	5	5	5	5
GNMAS	10	9	0	0	0	2	4	4	4	4	3	15	16	16	19	20	21	24	24	10	8	10	10	9	0	2	2	2	2
FILMCS	5	12	8	9	9	8	6	10	7	7	7	7	6	7	6	5	5	5	5	27	27	24	23	21	21	24	24	24	24
FINMAS	5	4	5	6	6	5	5	5	6	7	5	5	7	7	7	7	7	7	7	2	2	1	0	0	1	0	0	0	0
CONVENTIONAL	0	1	2	2	2	0	0	0	0	0	0	4	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CORPORATES	40	31	33	28	34	41	38	35	34	32	34	35	35	37	39	34	33	26	20	23	25	24	29	24	32	32	32	32	32
INDUSTRIALS	15	13	15	11	16	24	16	14	13	13	13	17	13	14	17	17	19	12	11	10	12	11	8	8	8	12	12	12	12
FINANCE	10	4	6	7	4	5	3	1	1	2	5	5	7	11	11	3	4	4	4	4	4	2	5	0	4	4	4	4	4
UTILITIES	10	13	9	6	13	12	13	14	17	17	16	13	15	12	11	12	10	10	5	9	9	11	16	16	20	16	16	16	16
YANKEES	5	1	3	4	1	0	6	6	3	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
CASH EQUIVALENTS	5	9	4	4	3	5	12	13	10	10	10	5	5	7	6	4	3	3	10	5	10	13	8	13	20	20	20	20	20
TOTAL PORTFOLIO	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

EXHIBIT 2

DURATION AND MATURITY DISTRIBUTION

DURATION IN YEARS (% OF MARKET VALUE)	1990		1989				1988				1987				1986			
	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
0 TO 1	5	5	5	3	10	13	10	10	10	5	5	7	6	4	3	3	11	6
1 TO 3	5	7	5	13	13	8	6	5	7	5	5	6	3	0	1	1	11	1
3 TO 5	46	43	41	31	27	27	32	35	26	42	48	38	53	51	53	52	31	15
5 TO 7	26	30	29	32	29	33	28	27	39	25	22	30	25	30	24	24	16	62
OVER 7	18	15	20	21	21	19	24	23	18	23	20	19	13	15	19	20	31	7
AVG DURATION	5.6	5.1	5.2	5.2	4.9	4.7	4.9	4.9	4.9	5.2	5.1	5.2	5.0	5.2	5.1	5.1	5.4	5.4

MATURITY * (% OF MARKET VALUE)	1985				1984	
	Q4	Q3	Q2	Q1	Q4	Q3
1-5 YEARS	18	15	12	10	11	18
5-12 YEARS	68	76	81	81	75	69
OVER 12 YEARS	14	9	7	9	14	13
AVG MATURITY (YEARS)	13.9	12.7	11.5	12.0	14.5	13.3
AVG DURATION (YEARS)	5.2	5.1	4.9	5.0	5.0	4.9

* Duration distributions were not available to staff for 1984 and 1985.

EXHIBIT 3

QUALITY DISTRIBUTION

		<u>GOVERNMENT/ AGENCY</u>	<u>AAA</u>	<u>AA</u>	<u>A & BELOW</u>
1990	Q2	65	11	4	20
	Q1	72	5	4	19
1989	Q4	65	6	1	28
	Q3	56	6	0	38
	Q2	58	3	0	39
	Q1	59	3	1	37
1988	Q4	62	3	3	32
	Q3	64	3	1	32
	Q2	63	1	2	34
	Q1	62	0	2	36
1987	Q4	63	2	2	33
	Q3	60	2	2	36
	Q2	58	2	2	38
	Q1	63	4	2	31
1986	Q4	65	2	1	32
	Q3	64	2	2	32
	Q2	64	6	3	27
	Q1	58	11	2	29
1985	Q4	58	11	0	31
	Q3	70	8	7	15
	Q2	64	7	7	22
	Q1	72	3	14	11
1984	Q4	67	4	19	19
	Q3	66	11	14	14

EXHIBIT 4

WESTERN ASSET MANAGEMENT COMPANY
MAY 31, 1990

BENCHMARK
PORTFOLIO CELL WEIGHTS

DURATIONS: (Years)	<u>0-1</u>	<u>1-2</u>	<u>2-3</u>	<u>3-4</u>	<u>4-5</u>	<u>5-6</u>	<u>6-7</u>	<u>7-8</u>	<u>8-9</u>	<u>9+</u>	<u>TOTAL</u>
% GOVERNMENTS	0.402	4.522	3.179	2.664	2.053	1.438	1.011	1.031	0.981	2.719	20.000
TREASURY	0.287	3.412	2.282	1.901	1.297	1.086	0.741	0.895	0.923	2.177	15.000
AGENCY	0.115	1.110	0.897	0.762	0.756	0.352	0.270	0.136	0.058	0.542	5.000
% MORTGAGES	0.171	0.382	0.853	4.476	6.770	6.577	1.146	4.293	0.333	---	35.000
FHA	---	---	---	---	10.374	---	---	4.293	0.333	---	15.000
GNMA	0.029	0.226	0.581	1.258	2.742	4.018	1.146	---	---	---	10.000
FHLMC	0.057	0.099	0.139	1.625	1.943	1.138	---	---	---	---	5.000
FNMA	0.085	0.057	0.134	1.592	1.711	1.421	---	---	---	---	5.000
% CORPORATES	0.859	4.059	4.873	4.812	6.131	5.397	6.364	4.519	1.573	1.412	40.000
INDUSTRIAL	0.233	1.344	1.951	1.730	2.616	2.077	1.955	1.714	0.848	0.533	15.000
FINANCIAL	0.433	1.941	2.153	1.808	1.554	0.841	0.604	0.381	0.177	0.109	10.000
UTILITY	0.093	0.357	0.466	0.678	1.162	1.730	2.866	2.216	0.349	0.082	10.000
YANKEE	0.100	0.418	0.303	0.596	0.799	0.750	0.939	0.208	0.198	0.689	5.000
% CASH	5.000	---	---	---	---	---	---	---	---	---	5.000
% OTHER	---	---	---	---	---	---	---	---	---	---	---
GRAND TOTAL	6.432	8.963	8.906	11.951	24.953	13.412	8.521	9.843	2.886	4.132	100.000

EXHIBIT 5

PERFORMANCE COMPARISONS

Comparison of Customized Benchmark Portfolio Performance
With Salomon BIG Index

		TOTAL PORTFOLIO		SALOMON
		<u>ACTUAL</u>	<u>BENCHMARK</u>	<u>BIG</u>
1984	3Q	10.6%	7.9%	8.6%
	4Q	<u>6.9</u>	<u>7.2</u>	<u>7.5</u>
		18.2%	15.7%	16.8%
1985	1Q	2.3%	2.2%	2.2%
	2Q	9.1	8.6	8.9
	3Q	1.9	2.0	2.0
	4Q	<u>9.3</u>	<u>7.5</u>	<u>7.7</u>
		24.3%	21.6%	22.3%
1986	1Q	6.9%	7.6%	7.9%
	2Q	1.3	1.1	1.1
	3Q	2.2	2.4	2.5
	4Q	<u>4.9</u>	<u>3.2</u>	<u>3.3</u>
		16.1%	15.0%	15.5%
1987	1Q	2.6%	1.3%	1.3%
	2Q	-3.4	-1.4	-1.6
	3Q	-3.1	-2.7	-2.8
	4Q	<u>5.3</u>	<u>5.6</u>	<u>5.8</u>
		1.1%	2.6%	2.6%
1988	1Q	5.3%	4.0%	3.8%
	2Q	1.5	1.4	1.2
	3Q	2.7	2.2	2.0
	4Q	<u>1.5</u>	<u>0.9</u>	<u>0.8</u>
		11.4%	8.7%	8.0%
1989	1Q	1.5%	1.2%	1.2%
	2Q	8.2	7.8	7.9
	3Q	1.8	1.0	1.0
	4Q	<u>3.5%</u>	<u>3.6</u>	<u>3.7</u>
		15.8%	14.1%	14.4%
1990	1Q	-1.4%	-0.4%	-0.8%
	2Q	3.7	3.7	3.6
Cumulative		127.5%	112.7%	115.0%

EXHIBIT 6

WESTERN
DURATION VS. SPOT RATE

	<u>10 YEAR SPOT RATE</u>	<u>WESTERN PORTFOLIO DURATION</u>	<u>BENCHMARK MARKET DURATION</u>
1990			
Q1	8.46%	5.1 Years	4.61 Years
1989			
Q4	7.81	5.17	4.56
Q3	8.12	5.17	4.55
Q2	7.91	4.88	4.45
Q1	9.00	4.71	4.42
1988			
Q4	8.92	4.91	4.44
Q3	8.75	4.91	4.39
Q2	8.73	4.91	4.46
Q1	8.55	5.22	4.49
1987			
Q4	8.82	5.11	4.50
Q3	9.51	5.19	4.50
Q2	8.31	4.99	4.45
Q1	7.17	5.24	4.18
1986			
Q4	7.14	5.1	4.12
Q3	6.94	5.1	4.19
Q2	7.25	5.4	4.19
Q1	7.31	5.4	3.98
1985			
Q4	8.98	5.2	3.97
Q3	10.29	5.1	4.02
Q2	10.28	4.9	4.00
Q1	11.50	5.0	3.92
1984			
Q4	11.48	5.0	4.32
Q3	12.11	4.9	4.21

EXHIBIT 7

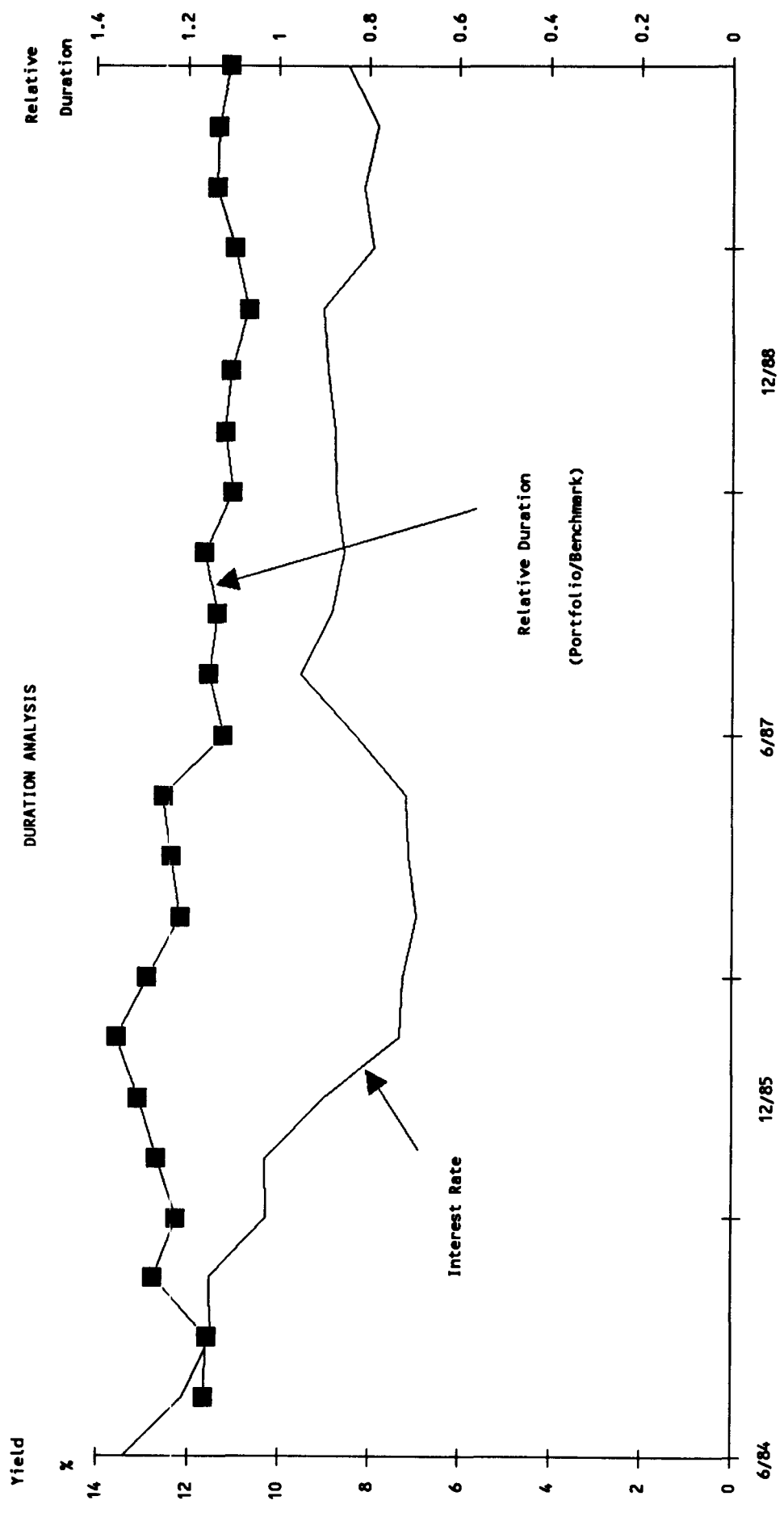
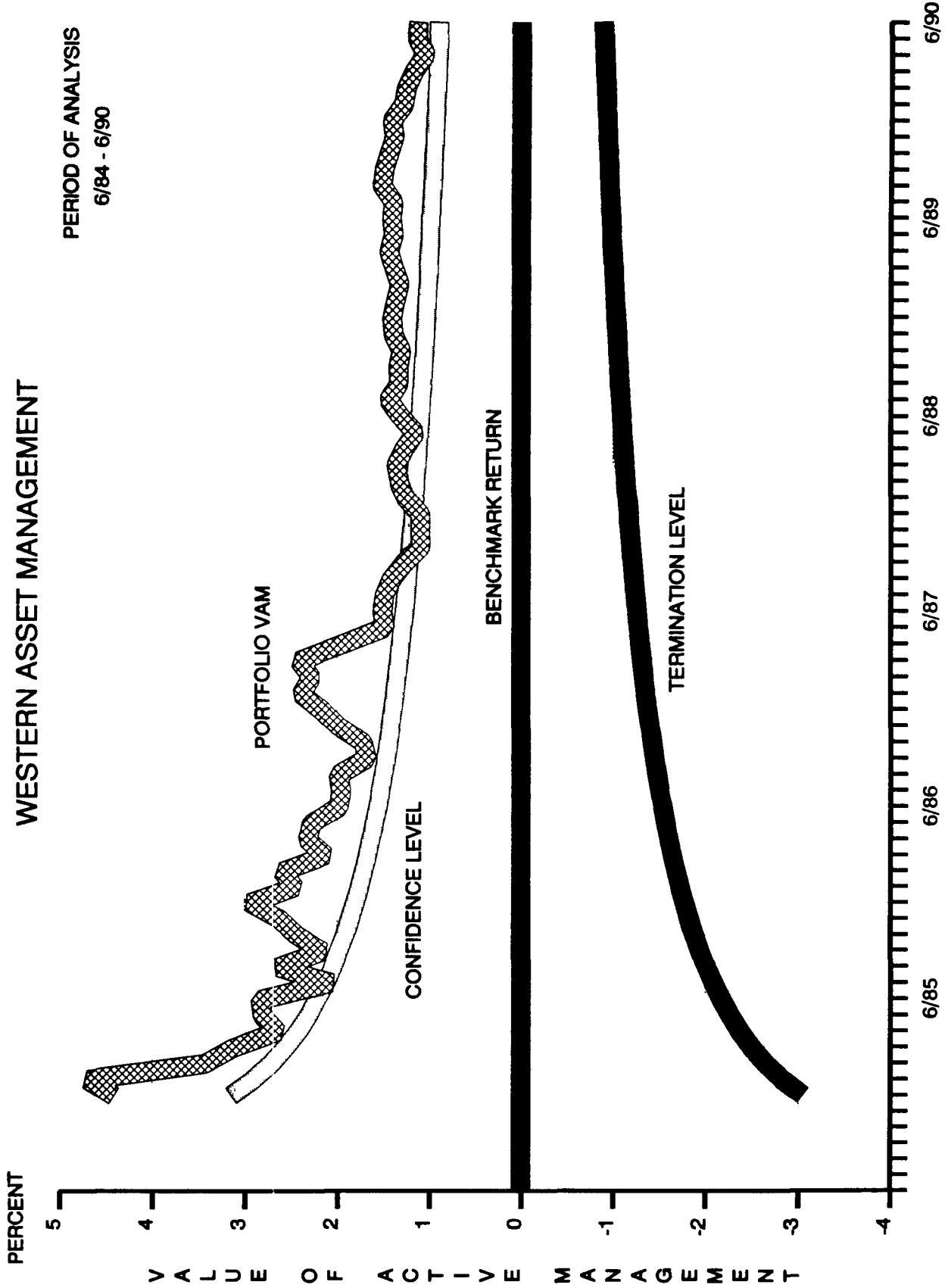


EXHIBIT 8

YEARLY SECTOR RETURNS

	<u>ANNUALIZED</u> <u>RETURN</u>	<u>1990</u> <u>1ST HALF</u>	<u>1989</u>	<u>1988</u>	<u>1987</u>	<u>1986</u>	<u>1985</u>
TREASURY/AGENCY	11.16%	2.20%	14.22%	7.90%	2.13%	15.48%	20.46%
MORTGAGES	12.71	3.87	15.16	8.81	4.06	13.44	25.68
CORPORATES	12.58	3.09	13.97	9.45	2.06	17.03	24.93
INTERMEDIATE							
CORPORATES							
AAA/AA	10.75	3.55	12.82	7.82	3.38	13.62	18.53
A	10.89	3.67	12.70	7.68	3.53	14.41	18.50
Baa	11.41	3.89	10.87	9.16	6.21	13.44	19.58

VALUE OF ACTIVE MANAGEMENT WESTERN ASSET MANAGEMENT



ACTIVE BOND MANAGERS

Value of Active Management Reports

Second Quarter 1990

Fixed income manager returns are evaluated against the performance of customized indices constructed to represent the managers' specific investment approaches. These custom indices are commonly referred to as "benchmark portfolios." The benchmark portfolios factor in bond market influences that at times favorably or unfavorably impact certain investment styles. Thus, benchmark portfolios are the appropriate standards against which to judge the managers' performance.

Staff Recommendations
No action required.

Manager performance relative to benchmarks is evaluated on a quarterly basis by the Fixed Income Manager Committee of the Investment Advisory Council.

Managers	Market Value 6/30/90 (Thousands)	Quarter Ending 6/30/90 Actual Bmrk		Year Ending 6/30/90 Actual Bmrk		Annualized Five Years Ending 6/30/90 Actual Bmrk	
IAI	\$112,947	4.0%	3.7%	6.0%	7.3%	9.7%	10.6%
Lehman Ark	125,670	3.3	3.4	7.2	7.8	9.8	10.1
Miller Anderson	182,239	3.8	3.6	7.0	7.7	11.3	10.6
Morgan Stanley	119,456	3.4	3.6	6.7	8.5	9.9	10.2
Western Asset	280,268	3.7	3.7	7.8	8.1	11.5	10.6
Aggregate Active*		3.7	3.6	7.1	7.9	10.7	10.4
Salomon Broad Investment Grade Index		3.6%		7.7%		10.6%	

* Historical performance reflects composite of current managers only.

INVESTMENT ADVISERS

PORTFOLIO MANAGER: Larry Hill

ASSETS UNDER MANAGEMENT: \$112,946,548

INVESTMENT PHILOSOPHY

Investment Advisers is a traditional top down bond manager. The firm's approach is oriented toward correct identification of the economy's position in the credit cycle. This analysis leads the firm to its interest rate forecast and maturity decisions, from which the firm derives most of its value-added. Investment Advisers is an active asset allocator, willing to make rapid, significant moves between cash and long maturity investments over the course of an interest rate cycle. Quality, sector and issue selection are secondary decisions. Quality and sector choices are made through yield spread analyses consistent with the interest rate forecasts. Individual security selection receives very limited emphasis and focuses largely on specific bond characteristics such as call provisions.

QUALITATIVE EVALUATION
(Reported By Exception)

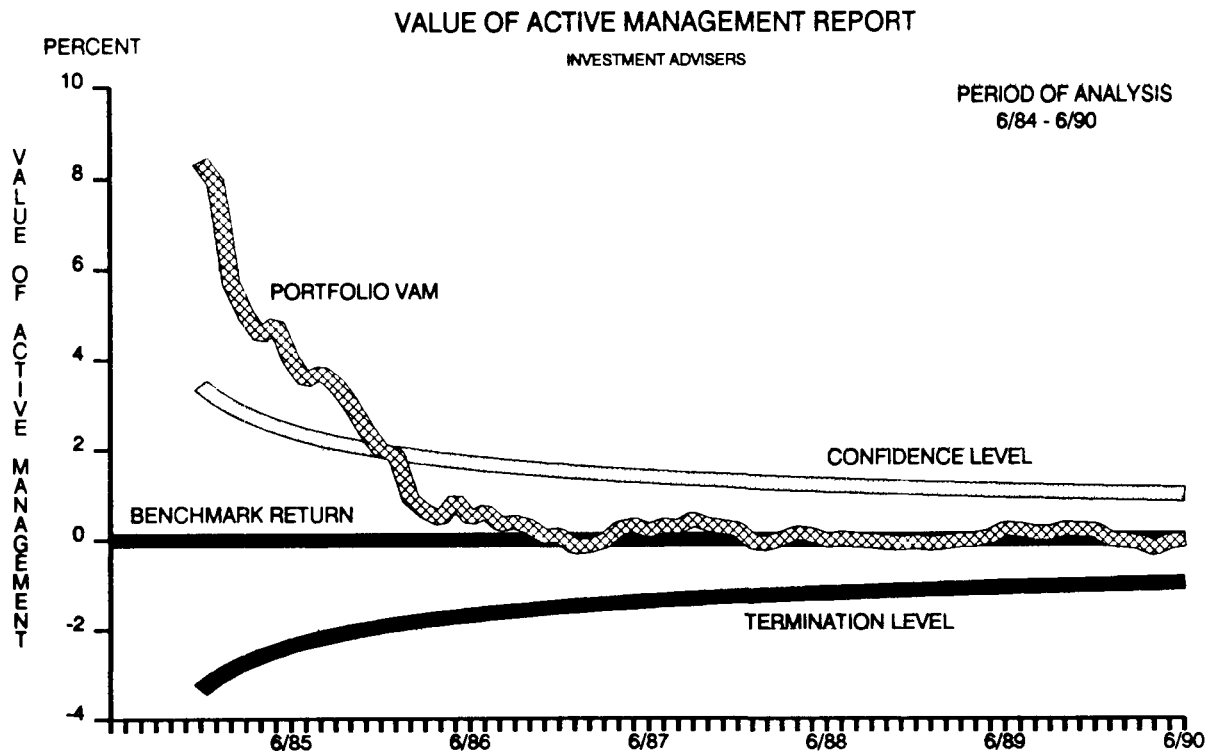
The current evaluation notes the following:

- No current concerns.

QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 7/1/84	
Actual Return	4.0%	6.0%	9.7%	13.6%	No action required
Benchmark	3.7	7.3	10.6	13.6	

STAFF RECOMMENDATIONS



LEHMAN ARK MANAGEMENT

PORTFOLIO MANAGER: Kevin Hurley

ASSETS UNDER MANAGEMENT: \$125,670,147

INVESTMENT PHILOSOPHY

Lehman's primary emphasis is on forecasting cyclical interest rate trends and positioning its portfolios in terms of maturity, quality and sectors, in response to its interest rate forecast. The firm avoids significant, rapidly changing interest rate bets. Instead, it prefers to shift portfolio interest rate sensitivity gradually over a market cycle, avoiding extreme positions in either long or short maturities. Individual bond selection is based on a quantitative valuation approach and the firm's internally-conducted credit analysis. High quality (A or better) undervalued issues are selected consistent with the desired maturity, quality and sector composition of the portfolios.

QUALITATIVE EVALUATION
(Reported By Exception)

The current evaluation notes the following:

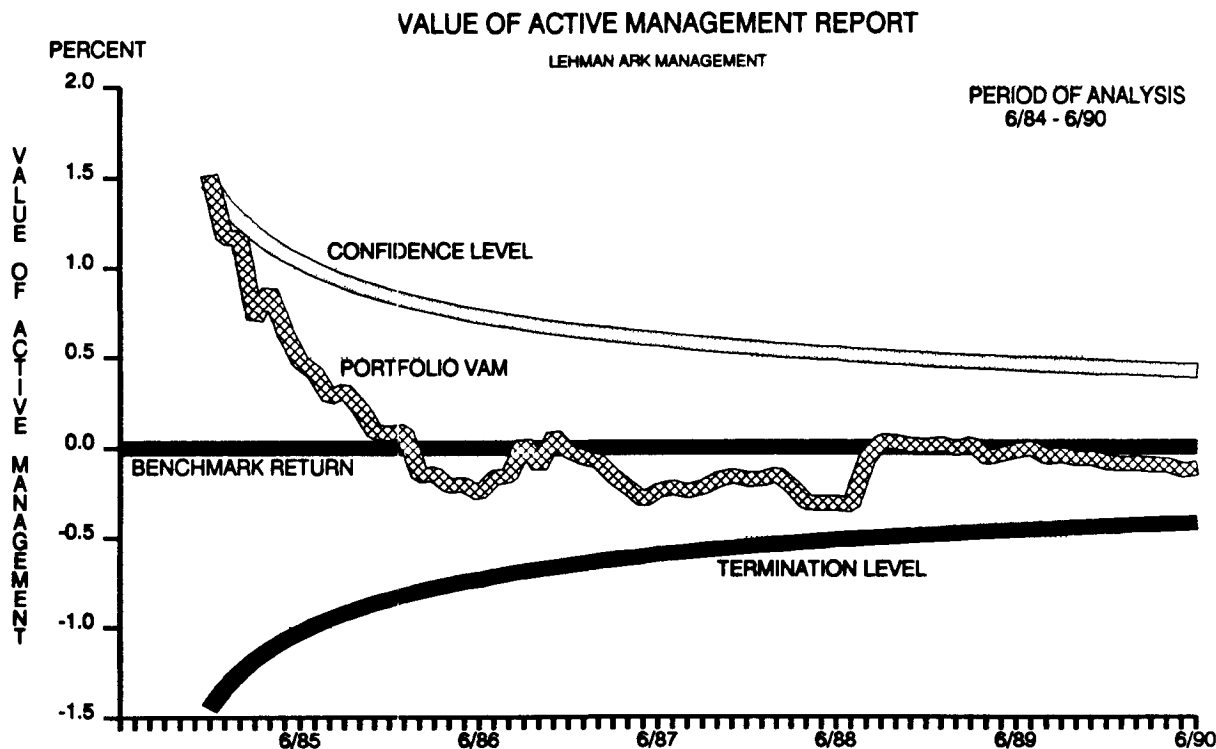
- No current concerns.

QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 7/1/84
Actual Return	3.3%	7.2%	9.8%	12.5%
Benchmark	3.4	7.8	10.1	12.7

STAFF RECOMMENDATIONS

An in-depth review of Lehman will be conducted during the next quarter since the firm's performance has lagged its benchmark over the latest five year period.



MILLER ANDERSON

PORTFOLIO MANAGER: Tom Bennet

ASSETS UNDER MANAGEMENT: \$182,238,599

INVESTMENT PHILOSOPHY

Miller Anderson focuses its investments in misunderstood or under-researched classes of securities. Over the years this approach has led the firm to emphasize mortgage-backed and specialized corporate securities in its portfolios. Based on its economic and interest rate outlook, the firm establishes a desired maturity level for its portfolios. Changes are made gradually over an interest rate cycle and extremely high cash positions are never taken. Total portfolio maturity is always kept within an intermediate three-to-seven year duration band. Unlike other firms that invest in mortgage securities, Miller Anderson intensively researches and, in some cases, manages the mortgage pools in which it invests.

QUALITATIVE EVALUATION
(Reported By Exception)

The firm's strengths continue to be:

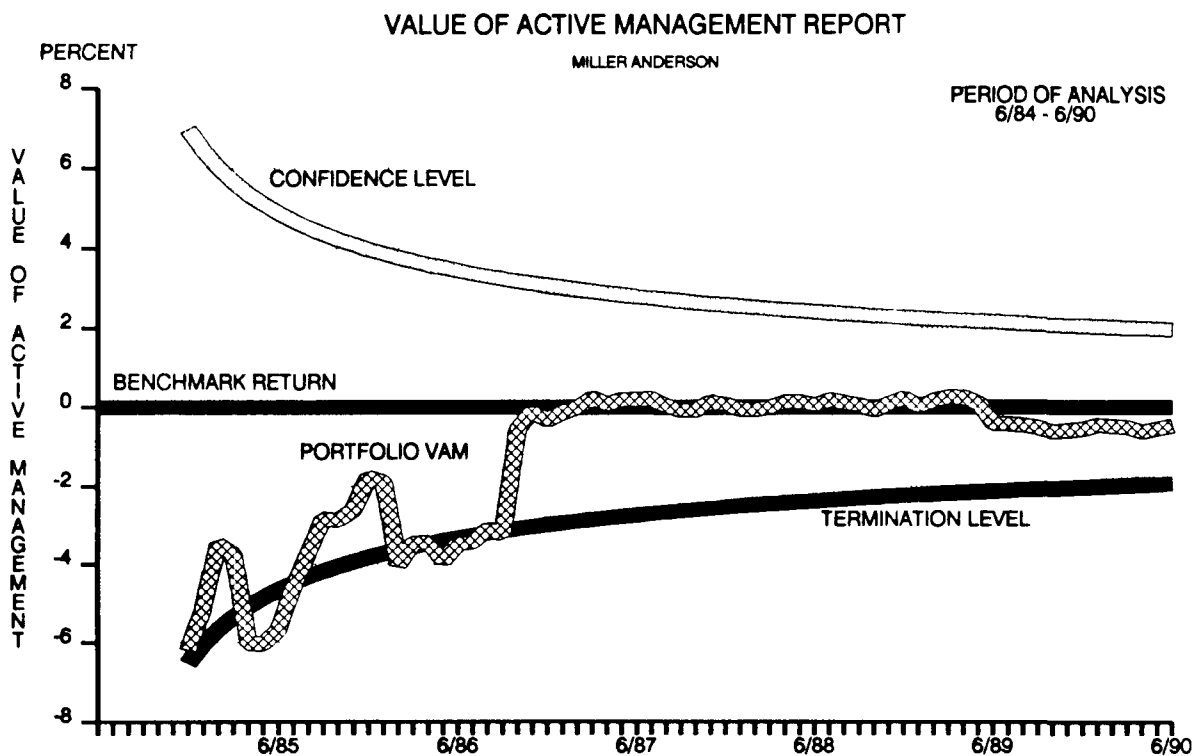
- Highly successful and experienced professionals.
- Extensive securities research process.

QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 7/1/84
Actual Return	3.8%	7.0%	11.3%	13.1%
Benchmark	3.6	7.7	10.6	13.6

STAFF RECOMMENDATIONS

No action required



MORGAN STANLEY

PORTFOLIO MANAGER: Geoffrey Gettman

ASSETS UNDER MANAGEMENT: \$119,456,461

INVESTMENT PHILOSOPHY

Morgan Stanley takes a very conservative approach to fixed income investing, emphasizing the preservation of capital through the generation of consistent real returns. This philosophy has led the firm to maintain a vast majority of its portfolio in short to intermediate maturity, high quality, (A or better) securities. Large positions in maturities longer than ten years are held only as temporary trading opportunities. These positions are increased or reduced gradually as the firm's expectations of the cyclical level of interest rates changes. Issue selection is of secondary importance to maturity decisions. Rather, given its maturity decisions, the firm prefers to make sizable investments in specific areas of the market where it believes persistent misvaluations are present.

QUALITATIVE EVALUATION
(Reported By Exception)

The current evaluation notes the following:

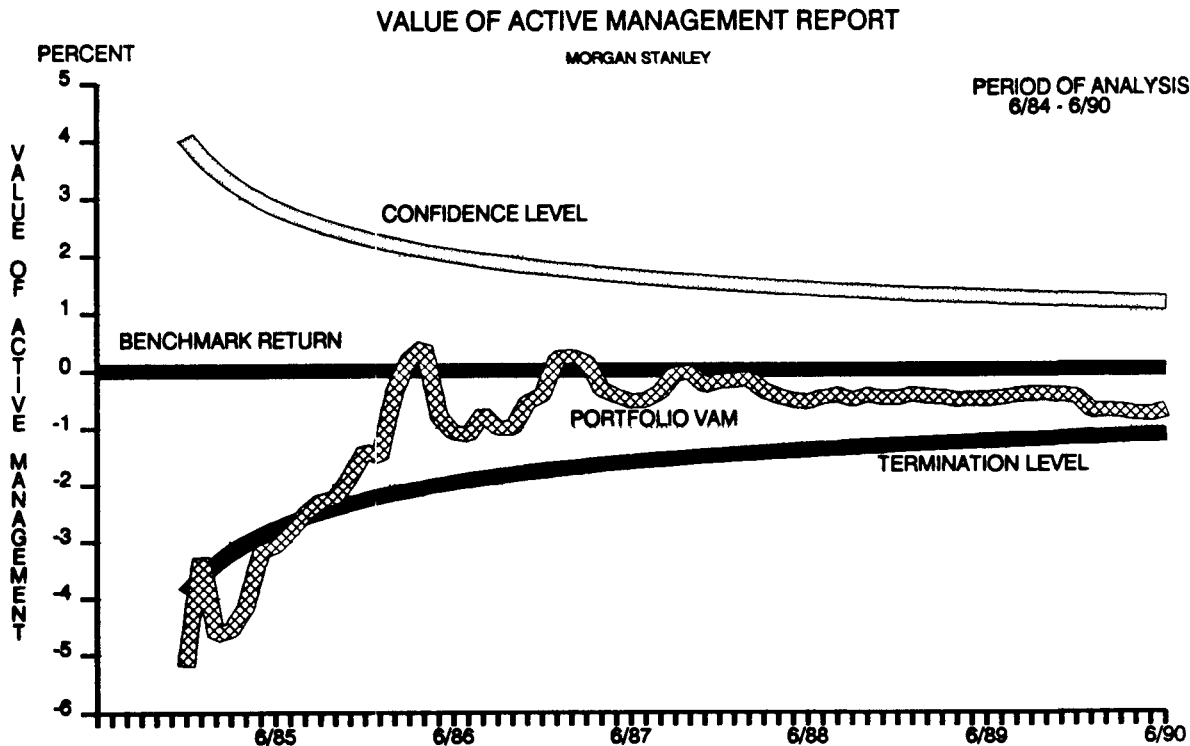
- Morgan Stanley's benchmark is not an accurate reflection of the firm's investment approach.

QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since Incept.
Actual Return	3.4%	6.7%	9.9%	12.4%
Benchmark	3.6	8.5	10.2	13.3

STAFF RECOMMENDATIONS

Morgan Stanley was terminated as of June 30, 1990.



WESTERN ASSET MANAGEMENT

PORTFOLIO MANAGER: Edgar Robie, Jr.

ASSETS UNDER MANAGEMENT: \$280,267,879

INVESTMENT PHILOSOPHY

Western recognizes the importance of interest rates changes on fixed income portfolio returns. However, the firm believes that successful interest rate forecasting, particularly short-run forecasting, is extremely difficult to accomplish consistently. Thus, the firm attempts to keep portfolio maturity in a narrow band near that of the market, making only relatively small, gradual shifts over an interest rate cycle. It prefers to add value primarily through appropriate sector decisions. Based on its economic analysis, Western will significantly overweight particular sectors, shifting these weights as economic expectations warrant. Issue selection, like maturity decisions, are of secondary importance to the firm.

QUALITATIVE EVALUATION

(Reported By Exception)

The firm's exceptional strengths continue to be:

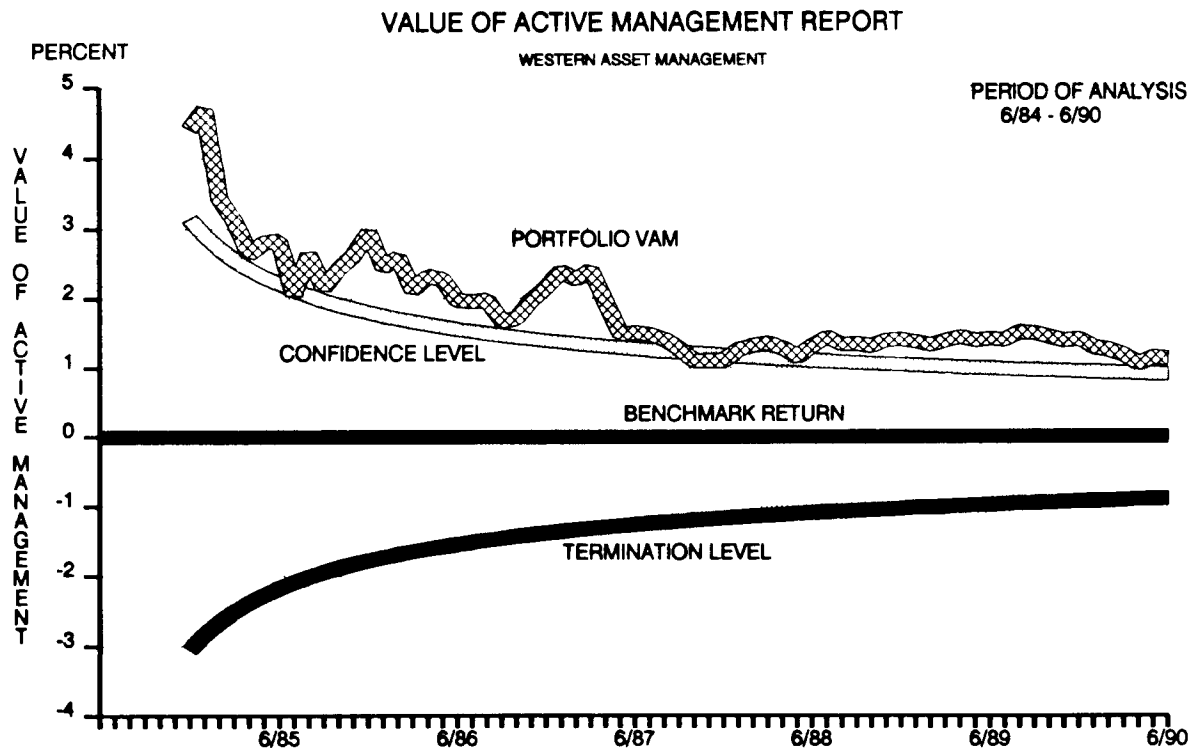
- Highly successful and experienced professionals.
- Extensive research and understanding in the application of normal portfolios to bond management.

QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 7/1/84
Actual Return	3.7%	7.8%	11.5%	14.7%
Benchmark	3.7	8.1	10.6	13.4

STAFF RECOMMENDATIONS

No action required



Tab F

MEMBERS OF THE BOARD
GOVERNOR RUDY PERPICH
STATE AUDITOR ARNE H. CARLSON
STATE TREASURER MICHAEL A. McGRATH
SECRETARY OF STATE JOAN ANDERSON GROWE
ATTORNEY GENERAL HUBERT H. HUMPHREY III



EXECUTIVE DIRECTOR
HOWARD J. BICKER

STATE OF MINNESOTA
STATE BOARD OF INVESTMENT

Room 105, MEA Building
55 Sherburne Avenue
St. Paul, MN 55155
Tel. (612) 296-3328
FAX. (612) 296-9572

September 7, 1990

TO: Members, State Board of Investment
Members, Investment Advisory Council

FROM: Alternative Investment Committee

SUBJECT: Committee Report

The Alternative Investment Committee met during the quarter to review the following information items:

- o Review of current strategy
- o Results of annual review sessions with existing managers.

Neither item requires action by the Board.

INFORMATION ITEMS:

1) Review of Current Strategy

To increase overall portfolio diversification, 15% of the Basic Retirement Funds is allocated to alternative investments. Alternative investments include real estate, venture capital and resource investments where Minnesota State Board of Investment (SBI) participation is limited to commingled funds or other pooled vehicles. A chart summarizing the Board's current commitments is attached (see Attachment A).

The real estate investment strategy calls for the establishment and maintenance of a broadly diversified real estate portfolio comprised of investment that provide overall diversification by property type and location. The main component of this portfolio consists of investments in diversified open-end and closed-end commingled funds. The remaining portion of the portfolio can include investments in

less diversified, more focused (specialty) commingled funds. Currently, the SBI has committed \$385 million to twelve commingled real estate funds. In addition, the SBI has approved investments in the Copley Value Fund for \$75 million and the LaSalle Income Parking Fund for \$20 million. These new investments are expected to be closed and finalized in the fourth quarter of 1990.

The venture capital investment strategy is to establish and maintain a broadly diversified venture capital portfolio comprised of investments that provide diversification by industry type, stage of corporate development and location. To date, the SBI has committed to fourteen commingled venture capital funds for a total commitment of \$379 million.

The strategy for resource investment requires that investment be made in resource investment vehicles that are specifically designed for institutional investors to provide an inflation hedge and additional diversification. Individual resource investments will include proved producing oil and gas properties, royalties and other investments that are diversified geographically and by type. Currently, the SBI has committed \$124 million to eight commingled oil and gas funds.

2) Results of Annual Review Sessions with Existing Managers

During July and August 1990, the Alternative Investment Committee and staff conducted annual review sessions with five of the SBI's existing alternative investment managers:

Venture Capital: KKR, Golder Thoma
Resource: Apache
Real Estate: Equitable, Aetna

Summaries of the review sessions are included as Attachments B, C, D, E and F of this Committee report.

Generally, the meetings went well and produced no major surprises. KKR, Golder Thoma and Equitable are conforming to their originally stated investment strategies. Staff and the Alternative Investment Committee have been satisfied with the performance and operations of these managers and would consider new investments with them, when appropriate.

Over the 6 years since the SBI's original \$15 million commitment to the Apache Equipment Loan, Apache has released investors from four-fifths of their original commitment to the fund. Currently, the SBI has a commitment to this investment of \$3 million of which \$2 million has been funded. Development and spending plans for this oil and gas investment have suffered from weak oil and gas pricing since the loan was incepted.

Overall, however, the Alternative Investment Committee and staff have been satisfied with the operations and performance of Apache.

Compared to the SBI's other real estate managers, the Alternative Income Committee and staff have been less satisfied with Aetna. Aetna's policy for first-in-line withdrawals from the fund incited several large investors to request withdrawal from the fund if Aetna did not change to a more equitable pro-rata withdrawal policy. Recently, Aetna has switched to a pro-rata withdrawal policy and has enacted additional administrative and strategic policies to boost fund performance. The Alternative Investment Committee and staff will continue to monitor Aetna's progress in implementing the new strategic and administrative policies.

Attachment A
Summary of Alternative Investments

	Inception Date	Commit. (Millions)	Funded Commit. (Millions)	Mkt. Value Of Funded Commit. (Millions)	Cash Distr. (Millions)	Unfunded Commit. (Millions)	IRR	Measurement Period
Real Estate								
Aetna	4/82	\$40.0	\$40.0	\$64.9	\$0.0	\$0.0	7.4%	7.9 Yrs.
Equitable	10/81	40.0	40.0	78.5	0.0	0.0	9.3	8.6
Heitman I	8/84	20.0	20.0	21.7	10.3	0.0	11.8	5.4
Heitman II	11/85	30.0	30.0	36.0	7.7	0.0	11.4	4.1
Heitman III	1/87	20.0	20.0	21.2	2.8	0.0	8.5	3.0
Prudential	9/81	40.0	40.0	37.5	36.4	0.0	7.8	8.8
RREEF	9/84	75.0	75.0	81.9	14.6	0.0	6.2	6.2
State Street III	9/85	20.0	20.0	22.5	0.0	0.0	2.9	4.3
State Street IV	9/86	15.0	15.0	16.1	0.0	0.0	2.4	3.3
State Street V	12/87	15.0	15.0	16.9	0.0	0.0	7.1	2.1
TCW III	8/85	40.0	40.0	49.8	9.5	0.0	10.3	4.6
TCW IV	11/86	30.0	30.0	35.6	2.1	0.0	9.8	3.3
Real Estate Totals		\$385.0	\$385.0	\$482.5	\$83.3	\$0.0		
Resource (Oil & Gas)								
AMGO I	9/81	\$15.0	\$15.0	\$4.8	\$3.0	\$0.0	-10.3%	7.8 Yrs.
AMGO II	2/83	7.0	7.0	6.0	1.6	0.0	1.9	6.4
AMGO IV	7/88	12.3	12.3	12.3	0.7	0.0	7.4	1.7
AMGO V	5/90	16.8	10.5	10.5	0.0	6.3	0.0	0.3
Apache I	5/84	3.0	2.0	2.0	0.7	1.0	15.9	6.2
Apache III	12/86	30.0	30.0	20.9	20.3	0.0	13.6	3.5
Morgan O&G	8/88	15.0	8.4	9.3	0.0	6.6	12.0	1.4
British Pet.	2/89	25.0	25.0	28.0	2.7	0.0	23.7	1.0
Resource Totals		\$124.1	\$110.2	\$93.8	\$29.1	\$13.9		

(Continued on next page)

Notes: Figures are updated after each manager's annual review session.
IRR indicates internal rate of return.
Totals may not add due to rounding.

8/90

**Attachment A (Con't.)
Summary of Alternative Investments**

	Inception Date	Commit. (Millions)	Funded Commit. (Millions)	Mkt. Value Of Funded Commit. (Millions)	Cash Distr. (Millions)	Unfunded Commit. (Millions)	IRR	Measurement Period
Venture Capital								
Allied	9/85	\$5.0	\$5.0	\$5.1	\$0.8	\$0.0	7.9%	3.8 Yrs.
DSV	4/85	10.0	10.0	11.5	0.0	0.0	4.0	4.2
First Century	12/84	10.0	6.5	6.2	2.0	3.5	9.6	5.1
First Chicago	5/88	5.0	4.3	4.2	0.4	0.7	10.7	1.9
First Chicago II	7/90	20.0	0.0	0.0	0.0	20.0	0.0	0.0
Golder Thoma	10/87	14.0	6.3	5.9	0.0	7.7	-4.3	2.7
LAI Ventures II	7/90	10.0	1.0	1.0	0.0	9.0	0.0	0.0
Inman/Bowman	6/85	7.5	5.3	4.3	0.0	2.3	-6.5	4.8
KKR I	3/84	25.0	25.0	26.6	40.4	0.0	26.8	6.3
KKR II	12/85	18.4	18.4	32.3	7.3	0.0	23.0	4.5
KKR III	10/87	146.6	133.7	134.2	7.6	12.9	3.2	2.7
Matrix	8/85	10.0	10.0	11.2	0.3	0.0	4.5	4.6
Matrix II	5/90	10.0	1.0	1.0	0.0	9.0	0.0	0.2
Norwest	1/84	10.0	10.0	8.2	2.5	0.0	1.7	5.5
Summit I	12/84	10.0	10.0	9.4	4.2	0.0	9.3	5.3
Summit II	5/88	30.0	12.0	11.2	0.6	18.0	-2.8	1.9
Superior	6/86	6.6	4.2	3.7	0.0	2.5	-5.4	3.8
T. Rowe Price	11/87	1.1	1.1	0.0	1.3	0.0	32.4	2.6
Zell/Chilmark	7/90	30.0	0.0	0.0	0.0	30.0	0.0	0.0
Venture Capital Totals		\$379.3	\$263.7	\$276.1	\$67.4	\$115.6		

SUMMARY

Real Estate Totals	\$ 385.0	\$ 385.0	\$ 482.5	\$ 83.3	\$ 0.0
Resource Totals	124.1	110.2	93.8	29.1	13.9
Venture Capital Totals	379.3	263.7	276.1	67.4	115.6
GRAND TOTALS	\$888.4	\$758.9	\$852.4	\$179.8	\$129.5

Notes: Figures are updated after each manager's annual review session.
IRR indicates internal rate of return.
Totals may not add due to rounding.

8/90

ATTACHMENT B

ANNUAL REVIEW SUMMARY
KKR 1984, 1986 AND 1987 FUNDS
August 8, 1990

MANAGER REPRESENTATIVES: Perry Golkin, Scott Stuart

SBI ASSETS UNDER MANAGEMENT: \$177,051,800

BACKGROUND AND DESCRIPTION: The KKR 1984, 1986 and 1987 Funds are managed by Kohlberg, Kravis, Roberts and Company and started in March 1984, December 1986 and September 1987, respectively. SBI has committed \$190 million to the three Funds. As of June 1990, \$177 million of the SBI's total commitment had been funded. Each fund has a twelve year term. The investment focus of KKR is on large management leveraged buyouts. KKR operates out of offices in San Francisco and New York.

QUALITATIVE EVALUATION:

Since 1984, KKR has made 18 investments. Eight have been sold or partially liquidated. Additionally, two companies have been taken public.

The market value of investments and cash distributions are 1.40 times the SBI's original investment.

KKR has considered investments in other countries and in regulated industries such as banking. To date, only a banking investment has been made. Early this year, KKR acquired 9.9% of First Interstate Bank.

Given the current lack of attractive deal flow, KKR is concentrating on improving the value and liquidity of current holdings and opportunistically selling mature holdings.

KKR has made significant progress with the RJR investment. KKR's accomplishments since the RJR acquisition include establishing a new senior management team, restructuring the balance sheet, refinancing certain problematic debt issues, implementation of major cost savings programs and completion of \$6 billion of asset sales.

ATTACHMENT B (con't)

QUANTITATIVE EVALUATION

	<u>1984 FUND</u>	<u>1986 FUND</u>	<u>1987 FUND</u>
COMMITMENT:	\$25,000,000	\$18,365,339	\$146,634,660
FUNDED COMMITMENT:	\$25,000,000	18,365,339	133,686,461
MARKET VALUE OF FUNDED COMMITMENT:	\$26,649,095	32,251,716	134,209,586
CASH DISTRIBUTIONS:	\$40,433,459	7,325,960	7,629,132
INCEPTION DATE(S):	March 1984	December 85	October 87
INTERNAL RATE OF RETURN (IRR): (annualized, since inception)	27%	23%	3%

DIVERSIFICATION PROFILE (% OF COST AND SINCE INCEPTION)

COMPANIES

MALONE & HYDE	1.40%
COLE NATIONAL	1.10
PACE INDUSTRIES	2.50
MOTEL 6	1.65
M & T	.35
UNION TEXAS PETROLEUM	3.28
STORER	2.90
BEATRICE	3.44
SAFEWAY	1.84
OWENS-ILLINOIS	2.53
JIM WALTER	2.00
SEAMEN FURNITURE	.92
STOP AND SHOP	1.34
DURACELL	4.73
RJR/NABISCO	43.35
K-III	1.80
TEXACO	6.19
1ST INTERSTATE	4.54
OTHER	14.15
	<u>100.00%</u>

STAFF COMMENTS AND RECOMMENDATIONS:

The Alternative Investment Committee and staff have been satisfied with KKR's performance and operation to date. Additional investments with KKR would be considered, if appropriate.

ATTACHMENT C

ANNUAL REVIEW SUMMARY
GOLDER, THOMA & CRESSEY
August 10, 1990

MANAGER REPRESENTATIVES: Bryan Cressey, Bruce Rauner

SBI ASSETS UNDER MANAGEMENT: \$6,300,000

BACKGROUND AND DESCRIPTION: Golder, Thoma, & Cressey Fund III was formed by the managing general partners of Golder, Thoma, & Cressey (GTC). The three founding general partners, Stan Golder, Carl Thoma and Bryan Cressey, have worked together since the inception of GTC in 1980. Prior to the formation of GTC, the three founding partners worked together in First Chicago's private equity group. Bruce Rauner, the fourth general partner, has seven years of experience at GTC.

GTC focuses on industry consolidations and targets fragmented industries. GTC buys an existing company that can grow through a series of acquisitions. If they cannot find an existing company that meets their criteria, GTC forms its own management team to do consolidations in the selected industry. The industry consolidations combine the traits of leveraged buyouts and growth equity investments.

QUALITATIVE EVALUATION:

The annual meeting covered several items of interest. GTC currently has a portfolio of fourteen investments for Fund III. These investments total \$84 million of the \$225 million fund. GTC plans to spend another \$50 million on these companies leaving \$91 million for new investments.

Although it is still early in the fund's life, GTC thinks the investments have an excellent outlook. Most of the investments have been industry consolidations. However, GTC may use some of the money for small leveraged buyouts or early stage venture capital investments.

GTC is currently reviewing potential consolidations in the golf course management and billboard industries.

While all companies are performing at or in excess of expectations, GTC continues to carry all investments at cost.

ATTACHMENT C (con't)

QUANTITATIVE EVALUATION

COMMITMENT: \$14,000,000

FUNDED COMMITMENT: \$ 6,300,000

MARKET VALUE OF FUNDED COMMITMENT: \$ 5,930,878

CASH DISTRIBUTIONS: \$0

INCEPTION DATE(S): October 1987

INTERNAL RATE OF RETURN (IRR): -4.3%
(annualized, since inception)

DIVERSIFICATION PROFILE (% OF COST AND SINCE INCEPTION)

<u>COMPANY</u>	<u>DESCRIPTION</u>	
American Income	Life insurance company	20.36%
Barefoot Grass	Lawn care company	5.88%
Crellin/Injecto	Manufacturer of molded plastic prod.	9.40%
Ero Industries	Manufacturers and markets leisure prod.	7.65%
RMS Services	Restaurant ownership and management	8.83%
Heritage Propane	Propane distribution	6.97%
M-C Industries	Manufacturer of fluid power prod.	5.88%
Nicholstone/Haddon	Prints and binds books	13.51%
Northern Invest.	Small specialized LBO fund	1.82%
Sullivan Graphics	Prints comics & retail inserts; prepress	18.49%
Other	Unsuccessful .IC efforts	1.22%
		<u>100.00%</u>

STAFF COMMENTS AND RECOMMENDATIONS:

The Alternative Investment Committee and staff have been satisfied with Golder Thoma's operation and performance to date. Additional investments with GTC will be considered, when appropriate.

ATTACHMENT D

ANNUAL REVIEW SUMMARY
APACHE CORPORATION
August 10, 1990

MANAGER REPRESENTATIVES: Clyde McKensie, David Higgins,
Dan Hawk

SBI ASSETS UNDER MANAGEMENT: \$31,981,735

BACKGROUND AND DESCRIPTION: Currently, the SBI has two oil and gas investments with Apache. The SBI committed \$33 million of which \$31.9 million has been funded.

The first investment, the Apache Equipment Loan, began in May, 1984. The SBI's original commitment of \$15 million has been reduced to \$3 million with \$1.9 million funded to date. The notes fund Apache's share of production equipment in a joint venture with Shell Oil Company to develop offshore leases in the Gulf of Mexico. Noteholders receive ten percent per annum fixed interest payments plus two percent of the gross revenues from the joint venture.

The second investment, the Apache 1986 Acquisition Net Profits Interest, began in December, 1986. The SBI committed and funded \$30 million of the \$190 million private placement. The money was used to acquire non-operating interests in oil and gas properties acquired from Occidental Petroleum. Investors receive up to ninety percent of the net profits from the properties.

QUALITATIVE EVALUATION:

Due to the weakness in oil and gas prices over the last several years, the Equipment Loan is being funded much more slowly than originally expected. The SBI's original \$15 million commitment has been scaled back to \$3 million of which approximately \$2 million has been funded. The SBI's remaining commitment of \$1 million expires in 1994.

The 1986 Acquisition Net Profits Interest is proceeding as expected. The SBI's \$30 million investment has generated over \$20 million in cash flow to the SBI. Apaches estimates of future cash flows indicate the full amount of the SBI's investment will be returned by 1991 with an additional \$36 million to be paid in later years.

ATTACHMENT D (con't)

AGGREGATED QUANTITATIVE EVALUATION FOR THE TWO APACHE FUNDS

	<u>EQUIPMENT LOAN</u>	<u>NET PROFITS</u>
COMMITMENT:	\$3.0 Million	\$30.0 Million
FUNDED COMMITMENT:	\$1.98	\$30.0
MARKET VALUE OF FUNDED COMMITMENT:	\$1.95	\$21.0
CASH DISTRIBUTIONS:	\$0.74	\$20.3
INCEPTION DATE(S):	May 84	December 86
INTERNAL RATES OF RETURN (IRR)*: (annualized, since inception)	16%	14%

* Based on flat oil and gas prices.

DIVERSIFICATION PROFILE (% OF CURRENT VALUE)

<u>LOCATION</u>		<u>INVESTMENT TYPE</u>	
Louisiana	31%	Gas	62%
Oklahoma	33%	Oil	28%
Texas	15%		
Wyoming	7%		
Other	14%		

STAFF COMMENTS AND RECOMMENDATIONS:

The Alternative Investment Committee and staff are satisfied with Apaches operation and performance to date.

ATTACHMENT E

ANNUAL REVIEW SUMMARY
EQUITABLE PRIME PROPERTY FUND
July 18, 1990

MANAGER REPRESENTATIVES: Thomas McDonough, Mike Cassidy,
John Connelly

ASSETS UNDER MANAGEMENT: \$78.5 Million

BACKGROUND AND DESCRIPTION: The Prime Property Fund is a \$3.8 billion open-end, commingled real estate fund managed by Equitable Real Estate Group, Inc. of New York. The Fund was formed in August 1973 and has no termination date. Investors have the option to withdraw all or a portion of their investment. The Equitable primarily makes equity investments in existing real estate. Investments are diversified by location and type of property. On-site management of properties is contracted to outside firms or conducted by joint venture partners, but will be handled increasingly by a new in-house property management division.

QUALITATIVE EVALUATION:

The fund's positive performance results, in part, from its overweighting in retail properties and a limited exposure to oil patch properties.

Looking forward, the fund will maintain its current exposure in the retail market and will emphasize selective upgrading of its strong regional mall portfolio. In addition, the firm will increase holdings in industrial properties and focus on major distribution centers. Finally, the firm intends to reduce office holdings in smaller, suburban markets while selectively adding larger office properties in the central business districts of Chicago, Los Angeles, San Francisco, and Washington, D.C.

Equitable formed an in-house property management division and in the future will assume direct on-site management of more properties in the fund.

ATTACHMENT E (con't)

QUANTITATIVE EVALUATION FOR EQUITABLE PRIME PROPERTY FUND
AGGREGATE AS OF 3/31/90

COMMITMENT	\$40.0 Million
FUNDED COMMITMENT:	\$40.0 Million
MARKET VALUE OF FUNDED COMMITMENT:	\$78.5 Million
CASH DISTRIBUTIONS:	\$00.0 Million
INCEPTION DATE(S):	October 1981
INTERNAL RATE OF RETURN (IRR): (annualized, since inception)	9.3%

DIVERSIFICATION PROFILE (AS OF 3/31/90)

<u>GEOGRAPHIC</u>		<u>PROPERTY TYPE</u>	
Mideast	17.1%	Retail	43%
Pacific	17.0	Office	40
Northeast	15.9	Industrial	13
Southeast	12.2	Hotel	4
Southwest	11.4	Specialized	<1
W. No. Central	9.8		
E. No. Central	9.6		
Mountain	7.0		

STAFF COMMENTS AND RECOMMENDATIONS:

The Alternative Investment Committee and staff have been satisfied with Equitable's performance to date. Additional investments with Equitable will be considered, when appropriate.

ATTACHMENT F

ANNUAL REVIEW SUMMARY
AETNA REAL ESTATE SEPARATE ACCOUNT (RESA)
July 18, 1990

MANAGER REPRESENTATIVES: Tom Anathan, Maurice Giannotti

ASSETS UNDER MANAGEMENT: \$61.1 Million

BACKGROUND AND DESCRIPTION: RESA is a \$1.67 billion open-end, commingled, real estate fund managed by Aetna Life and Casualty Company of Hartford, Connecticut. The Fund was formed in January 1978 and has no termination date. Investors have the option to withdraw all or a portion of their investment. RESA primarily makes equity investments in existing real estate. Investments are diversified by location and type of property. On-site management of properties is contracted to outside firms or conducted by a joint venture partner.

QUALITATIVE EVALUATION:

Aetna continues to implement its strategy, initiated in 1988, to reposition the fund through:

- o increasing the number of large, premier properties and reducing holdings in smaller properties and the office sector
- o selling lower potential properties
- o emphasizing apartments, larger retail centers, and industrial buildings.

Recently, the fund has achieved its highest cash yield since March 1988 and highest occupancy rates since March 1986.

In response to a recent increase in withdrawal requests, and recognizing the current decrease in liquidity in the market, Aetna instituted several administrative changes, including:

- o an incentive fee structure to tie management fees to fund performance
- o a policy to ensure cash flow for investment needs
- o a policy to honor withdrawal requests on a pro-rata basis rather than on a first-in-line basis.

ATTACHMENT F (con't)

QUANTITATIVE EVALUATION FOR AETNA REAL ESTATE SEPARATE ACCOUNT
AGGREGATE AS OF 3/31/90

COMMITMENT	\$40.0 Million
FUNDED COMMITMENT:	\$40.0 Million
MARKET VALUE OF FUNDED COMMITMENT:	\$64.9 Million
CASH DISTRIBUTIONS:	\$00.0 Million
INCEPTION DATE(S):	April 1982
INTERNAL RATE OF RETURN (IRR): (annualized, since inception)	7.4%

DIVERSIFICATION PROFILE (AS OF 3/31/89)

<u>GEOGRAPHIC</u>		<u>PROPERTY TYPE</u>	
Pacific	45.3%	Office	39%
Mountain	16.8	Retail	18
Northeast	15.4	Apartments	15
Southwest	14.8	Office R&D	12
Mideast	3.7	Industrial	9
W. No. Central	1.9	Hotel	7
Southeast	1.3		
E. No. Central	0.8		

STAFF COMMENTS AND RECOMMENDATIONS:

The Alternative Investment Committee and staff will continue to monitor Aetna's progress in implementing strategic and administrative changes. Additional investments with Aetna will be considered, if appropriate.

Tab G

MEMBERS OF THE BOARD
GOVERNOR RUDY PERPICH
STATE AUDITOR ARNE H CARLSON
STATE TREASURER MICHAEL A McGRATH
SECRETARY OF STATE JOAN ANDERSON GOWE
ATTORNEY GENERAL HUBERT H HUMPHREY III



EXECUTIVE DIRECTOR
HOWARD J BICKER

STATE OF MINNESOTA
STATE BOARD OF INVESTMENT

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FAX. (612) 296-9572

September 7, 1990

TO: Members, State Board of Investment
FROM: Proxy Voting Committee
SUBJECT: Delegation Authority and Voting Guidelines

In March 1982, the Board established a Proxy Voting Committee to carry out the voting responsibilities of the SBI. As you know, each Board member has one designee on the Committee. The current members are:

Peter Sausen, Chair	Assistant Commissioner of Finance
Christie Eller	Assistant Attorney General
Richard Helgeson	Deputy State Auditor
John Manahan	Deputy State Treasurer
Elaine Voss	Deputy Secretary of State

SBI's legal counsel has suggested that the Board adopt a formal resolution which specifies the authority of the Proxy Voting Committee. A resolution to accomplish this is attached.

The voting guidelines referenced in the resolution reflect the current voting practices of the Proxy Committee. Since the issues that appear on corporate ballots change over time, the Proxy Committee reviews its guidelines on at least an annual basis.

RECOMMENDATION:

The Proxy Voting Committee recommends that the SBI adopt the attached resolution concerning proxy voting.

RESOLUTION OF THE
MINNESOTA STATE BOARD OF INVESTMENT
CONCERNING PROXY VOTING

WHEREAS, as a stockholder, the Minnesota State Board of Investment (SBI) is entitled to sponsor and cosponsor shareholder resolutions and participate in corporate annual meetings by casting its votes by proxy or through direct attendance at the meetings; and

WHEREAS, the SBI has previously established a Proxy Committee; and

WHEREAS, the Proxy Committee has proposed proxy voting guidelines:

NOW THEREFORE, BE IT RESOLVED THAT:

1. The SBI hereby approves and adopts the Proxy Voting Guidelines attached hereto and incorporated by reference herein (the Guidelines).
2. To advise and assist the SBI in the implementation of these proxy voting guidelines, the SBI hereby authorizes and reaffirms the establishment of the SBI Proxy Committee composed of a representative selected by each member of the SBI to be chaired by the designee of the Governor and convened as necessary in accord with the Guidelines.
3. The SBI further authorizes the SBI Proxy Committee to review the Guidelines periodically and report to the SBI as necessary.
4. The SBI further directs its staff to advise and assist the Proxy Committee in the implementation of this resolution and directs its Executive Director to obtain such consulting and reporting services as may be necessary.
5. This resolution shall take effect immediately.

Adopted this ____ day
of September, 1990.

GOVERNOR RUDY PERPICH
Chair, Minnesota State
Board of Investment

Proxy Voting Guidelines

The Minnesota State Board of Investment (SBI) has formulated proxy voting guidelines by which it casts votes on a wide range of corporate governance and social responsibility issues.

As a stockholder, the Board is entitled to participate in corporate annual meetings by casting its votes by proxy or through direct attendance at the meetings. The following guidelines constitute an effort by the SBI to manage and control its proxy voting process.

Overview of the SBI

By the Minnesota Constitution, the Board is composed of the Governor, the State Auditor, the State Treasurer, the Secretary of State, and the Attorney General. The Board employs a professional staff to carry out its policies. The Board and staff are assisted by a seventeen member Investment Advisory Council.

The SBI invests the pension assets of the three statewide public employee retirement systems with approximately 312,000 members:

- Public Employees Retirement Association (PERA)
- Teachers Retirement Association (TRA)
- Minnesota State Retirement System (MSRS)

The SBI also invests the cash balances of state government funds and assets of several trust funds.

Statutory Purpose

According to statute, state assets and pension assets are to be responsibly invested by the SBI to maximize the total rate of return without incurring undue risk.¹ Currently, non pension accounts do not hold equities. The focus, therefore, of the SBI's proxy voting activities is the extensive equity holdings within the pension asset portfolios.

¹ *Minnesota Statutes* 1989 Supplement, Section 11A.01.

Minnesota State Board of Investment

Fiduciary Responsibility

As fiduciaries of pension assets, members of the Board and the executive director owe a fiduciary duty to the members of the plans, to the taxpayers of the state and political subdivisions who help to finance the plans, and to the State of Minnesota.²

In addition to the general standard of fiduciary conduct, members of the Board, the executive director, the members of the Investment Advisory Council, staff, and members of Board committees must carry out their duties in accordance with the prudent person standard as articulated in statute.³

Voting Process

The Board recognizes its fiduciary responsibility to cast votes on proxy issues. The SBI does not delegate the duty to its external investment managers. Rather, the SBI actively votes all shares according to guidelines established by its Proxy Committee.

The Board delegates proxy voting responsibilities to its Proxy Committee. Each Board member appoints one member to the Proxy Committee. The five member Committee meets only if it has a quorum and casts votes on proxy issues based on a majority vote of those present. In the unusual event that it reaches a tie vote or a quorum is not present, the Committee will cast a vote to abstain.

The Committee has formulated guidelines by which it casts votes on a wide range of corporate governance and social responsibility issues. Each year the Proxy Committee reviews existing guidelines and determines which issues it will review on a case-by-case basis. The Proxy Committee also reviews certain corporate governance issues pertaining to companies headquartered in Minnesota.

Corporate Governance Issues

Routine Matters

In general, the SBI supports management on routine matters of corporate governance. These issues include:

- uncontested election of directors.
- selection of auditors.
- management proposals on compensation issues including savings plans and stock options.
- limits on director and officer liability or increases in director and officer indemnification permitted under the laws of the state of incorporation.

2 *Minnesota Statutes* 1989 Supplement, Section 356A.04, subdivision 1.

3 *Minnesota Statutes* 1989 Supplement, Section 11A.09, and Section 356A.04, subdivision 2.

Minnesota State Board of Investment

Shareholder Rights

In general, the SBI opposes proposals that would restrict shareholder ability to effect change. Such proposals include:

- instituting supermajority requirements to ratify certain actions or events.
- creating classified boards.
- barring shareholders from participating in the determination of the rules governing the board's actions, such as quorum requirements and the duties of directors.
- prohibiting or limiting shareholder action by written consent.
- granting certain stockholders superior voting rights over other stockholders.

In general, the SBI supports proposals that preserve shareholder rights to effect change. Such proposals include:

- requiring shareholder approval of poison pill plans.
- repealing classified boards.
- adopting secret ballot of proxy votes.
- reinstating cumulative voting.
- adopting anti-greenmail provisions.

Buyouts

In general, the SBI supports friendly takeovers and management buyouts.

Special Cases

The SBI evaluates the following proposals on a case-by-case basis:

- hostile takeovers.
- contested election of directors.
- compensation agreements that are contingent upon corporate change in control.
- recapitalization plans.

Notwithstanding the above, in general, the SBI casts its votes to preserve existing management's discretion concerning corporate governance issues if the company is incorporated or is headquartered in Minnesota.

Social Responsibility Issues

South Africa and Namibia

The SBI supports a variety of proposals regarding South Africa including those that:

- encourage the signing of the Statement of Principles (formerly Sullivan Principles), a code of conduct for companies doing business in South Africa.
- encourage withdrawal from South Africa.
- sever all company ties with South Africa.
- promote the welfare of black employees and improve the quality of black life outside the work environment.
- limit strategic sales to South Africa.
- apply economic pressures on the South African government.
- request a report on operations in South Africa.

Northern Ireland

The SBI supports resolutions that call for the adoption of the MacBride Principles as a means to encourage equal employment opportunities in Northern Ireland.

The SBI supports resolutions that request companies to submit reports to shareholders concerning their labor practices or their sub-contractors' labor practices in Northern Ireland.

In addition to casting proxy votes, the SBI sponsors and cosponsors Northern Ireland resolutions as required by *Minnesota Statutes*, Section 11A.241.

Environmental Protection/Awareness

In general, the SBI supports resolutions that require a corporation to report or disclose to shareholders company efforts in the environmental arena.

In general, the SBI supports resolutions that request a corporation to report on progress toward achieving the objectives of the Valdez Principles, an environmental code of conduct for corporations.

Other Issues

In general, the SBI supports proposals that require a company to report or disclose to shareholders company efforts concerning a variety of social responsibility issues. In the past, these reporting resolutions have included issues such as affirmative action programs, animal testing procedures, nuclear plant safety procedures and criteria used to evaluate military contract proposals.

In general, the SBI opposes proposals that require a company to institute a specific business action in response to such issues. As an example, the SBI voted against a shareholder proposal which would have required a utility to phase out operations of a nuclear power plant.

Tab H

RESOLUTION OF THE
MINNESOTA STATE BOARD OF INVESTMENT
CONCERNING THE VALDEZ PRINCIPLES

WHEREAS, the Minnesota State Board of Investment (SBI) has previously established a Proxy Committee and adopted Proxy Voting Guidelines; and

WHEREAS, the Guidelines provide that, in general, the SBI supports resolutions which require a corporation to report or disclose to the shareholders company efforts in the environmental area and progress toward achieving the objectives of the Valdez Principles (see Attachment A);

NOW THEREFORE, BE IT RESOLVED THAT:

1. The SBI hereby requests the SBI the Proxy Committee to monitor the status of companies with respect to signing the Valdez Principles, report to the Board concerning the feasibility of sponsoring or cosponsoring resolutions designed to encourage corporations in which the Board has invested to adopt the Valdez Principles, and review the financial and legal considerations involved in such actions.
2. The SBI further directs its staff to advise and assist the Proxy Committee in the implementation of this resolution and directs its Executive Director to obtain such consulting and reporting services as may be necessary.
3. This resolution shall take effect immediately.

Adopted this _____ day
of September, 1990.

GOVERNOR RUDY PERPICH
Chair, Minnesota State
Board of Investment

Text of the Valdez Principles

As of June 1990

Introduction

By adopting these principles, we publicly affirm our belief that corporations and their shareholders have a direct responsibility for the environment. We believe that corporations must conduct their business as responsible stewards of the environment and seek profits only in a manner that leaves the Earth healthy and safe. We believe that corporations must not compromise the ability of future generations to sustain their needs.

We recognize this to be a long term commitment to update our practices continually in light of advances in technology and new understandings in health and environmental science. We intend to make consistent, measurable progress in implementing these principles and to apply them wherever we operate throughout the world.

1. Protection of the Biosphere

We will minimize and strive to eliminate the release of any pollutant that may cause environmental damage to the air, water, or earth or its inhabitants. We will safeguard habitats in rivers, lakes, wetlands, coastal zones and oceans and will minimize contributing to the greenhouse effect, depletion of the ozone layer, acid rain, or smog.

2. Sustainable Use of Natural Resources

We will make sustainable use of renewable natural resources, such as water, soils and forests. We will conserve nonrenewable natural resources through efficient use and careful planning. We will protect wildlife habitat, open spaces and wilderness, while preserving biodiversity.

3. Reduction and Disposal of Waste

We will minimize the creation of waste, especially hazardous waste, and wherever possible recycle materials. We will dispose of all wastes through safe and responsible methods.

4. Wise Use of Energy

We will make every effort to use environmentally safe and sustainable energy sources to meet our needs. We will invest in improved energy efficiency and conservation in our operations. We will maximize the energy efficiency of products we produce or sell.

ATTACHMENT A (con't)

5. **Risk Reduction**

We will minimize the environmental, health and safety risks to our employees and the communities in which we operate by employing safe technologies and operating procedures and by being constantly prepared for emergencies.

6. **Marketing of Safe Products and Services**

We will sell products or services that minimize adverse environmental impacts and that are safe as consumers commonly use them. We will inform consumers of the environmental impacts of our products or services.

7. **Damage Compensation**

We will take responsibility for any harm we cause to the environment by making every effort to fully restore the environment and to compensate those persons who are adversely affected.

8. **Disclosure**

We will disclose to our employees and to the public incidents relating to our operations that cause environmental harm or pose health or safety hazards. We will disclose potential environmental, health or safety hazards posed by our operations, and we will not take any action against employees who report any condition that creates a danger to the environment or poses health and safety hazards.

9. **Environmental Directors and Managers**

We will commit management resources to implement the Valdez Principles, to monitor and report upon our implementation efforts, and to sustain a process to ensure that the Board of Directors and Chief Executive Officer are kept informed of and are fully responsible for all environmental matters. We will establish a Committee of the Board of Directors with responsibility for environmental affairs. At least one member of the Board of Directors will be a person qualified to represent environmental interests to come before the company.

10. **Assessment and Annual Audit**

We will conduct and make public an annual self-evaluation of our progress in implementing these Principles and in complying with all applicable laws and regulations throughout our worldwide operations. We will work toward the timely creation of independent environmental audit procedures which we will complete annually and make available to the public.

Source: *The 1990 CERES Guide to The Valdez Principles*, the CERES Coalition, Boston, MA, 1990.