

**MINNESOTA STATE BOARD
OF INVESTMENT
MEETING
March 11, 1993
&
INVESTMENT ADVISORY
COUNCIL MEETING
March 10, 1993**

**AGENDA
STATE BOARD OF INVESTMENT
MEETING**

**Thursday, March 11, 1993
8:30 A.M. - Room 125
State Capitol - Saint Paul**

TAB

- 1. Approval of Minutes of December 9, 1992**

- 2. Report from the Executive Director (H. Bicker)**
 - A Quarterly Investment Review (October 1-December 31, 1992) **A**
 - B. Portfolio Statistics (December 31, 1992) **B**
 - C. Administrative Report **C**
 1. Budget and travel reports
 2. Legislative update
 3. SBI/IAC meeting dates for calendar 1993

- 3. Report from the Manager Search Committees (P. Sausen) **D****
 - A Recommendation to retain domestic active stock managers (Brinson, IAI, Jundt, Lincoln, Oppenheimer, Weiss Peck)
 - B. Recommendation to retain domestic active bond managers (BEA, Goldman, Standish, IDS, TCW)
 - C. Recommendation to retain international active/passive stock managers (Baring, Brinson)

- 4. Reports from the Investment Advisory Council (J. Yeomans)**
 - A. Asset Allocation Committee **E****
 1. Update on Post Fund asset allocation transition
 2. Review of interim performance benchmarks for the Post Fund
 3. Update on international issues
 4. Discussion of fund performance standards

 - B. Stock and Bond Manager Committee **F****
 1. Review of manager performance
 2. In-depth review of GeoCapital
 3. Approval of new performance based fee formula
 4. Recommendations on manager allocations
 5. Recommendation on contract periods

 - C. Alternative Investment Committee **G****
 1. Results of annual review sessions
 2. Status of First Reserve
 3. Recommendation for commitment to a venture capital manager (Golder Thoma)

- 5. Report from the Proxy Voting Committee **H****

STATE BOARD OF INVESTMENT

Minutes State Board of Investment December 9, 1992

The State Board of Investment (SBI) met at 9:00 A.M. on Wednesday, December 9, 1992 in Room 125, State Capitol, St. Paul, Minnesota. Governor Arne H. Carlson, Chair; Secretary of State Joan Anderson Growe; State Treasurer Michael A. McGrath; State Auditor Mark B. Dayton; and Attorney General Hubert H. Humphrey III were present.

Mr. Carlson called the meeting to order and the minutes of the September 9, 1992 meeting were approved.

Executive Director's Report

Mr. Bicker, Executive Director, referred Board members to Tab A of the meeting materials. He stated that the Basic Funds had exceeded the inflation rate over the last ten years (Basics Total Fund 13.3% vs. Inflation 3.7%) and slightly outperformed the composite index over the five year period (Basics Total Fund 9.0% vs. Composite 8.9%). In response to a question from Mr. Carlson, Mr. Bicker stated that the data containing the poor stock market performance from October 1987 would drop out of the five year measurement period next quarter, resulting in a very different set of return figures. Mr. Bicker stated that the Basic Funds' market value increased by 2% for the quarter ending September 30, 1992. He reported that the Basic Funds had matched the composite index and underperformed the median fund for the quarter (Basic Total Fund 2.5% vs. Composite 2.5%; Basics-Excluding Alternative Assets 3.1% vs. Median 3.5%). He stated that the Basics had exceeded the composite but trailed the median for the year (Basics Total Fund 9.4% vs. Composite 8.6%; Basics-Excluding Alternative Assets 11.0% vs. Median 11.3%). He stated that the stock segment matched target for the quarter (Basic stocks 2.5% vs. Wilshire 5000 Adjusted 2.5%) but had trailed it for the year (Basic stocks 9.8% vs. Wilshire 5000 Adjusted 10.0%), while the bond segment slightly outperformed its target for the quarter (Basic bonds 4.4% vs. Salomon Broad Index 4.3%), and had outperformed it for the year (Basic bonds 13.0% vs. Salomon BIG 12.7%). Mr. Carlson requested that the performance evaluations compare returns on other indices in addition to the Wilshire 5000. He observed that the stock segment continues to lag the Wilshire 5000 while the bond segment continues to outperform the Salomon BIG. He said this was not a major problem but he would like to see both segments outperform the market indexes.

Mr. Bicker directed members to the Post Retirement Fund summary. He stated that the fund increased in value by 5% during the third quarter due to positive cash flow and investment returns. He reported that the benefit increase is 4.6%, payable January 1, 1993. In response to a question from Mr. Carlson, Mr. Bicker said that this increase was calculated using the old benefit increase formula and he suggested that the increase would have been even higher if the new formula had been in effect for fiscal year 1992. Mr. Bicker stated that the stock segment had underperformed for the quarter (Post stocks

0.9% vs. Benchmark 2.6%), however, he added that the bond segment had outperformed its benchmark for the latest quarter (Post bonds 5.2% vs. Shearson Index 4.9%). Mr. Carlson confirmed that the CPI is the index used to measure inflation. He stated that he feels there are other indices that might provide more appropriate inflation figures for retirees and he requested that additional indices be included in future reports.

Mr. Bicker reported that the Assigned Risk Plan outperformed the composite for the quarter (Total Fund 4.3% vs. Composite 3.8%) and year (Total Fund 13.8% vs. Composite 12.2%). He noted that the stock segment had underperformed for the quarter (Equity segment 4.7% vs. Benchmark 4.9%) but had outperformed for the year (Equity segment 14.8% vs. Benchmark 12.7%). He added that the bond segment had outperformed its benchmark for both the quarter (Bond segment 4.3% vs. Benchmark 3.7%) and year (Bond segment 13.8% vs. Benchmark 12.0%).

Executive Director's Administrative Report

Mr. Bicker referred members to Tab C of the meeting materials for updates on the budget and travel. Mr. Bicker stated that his workplan for FY1993 included a review of the SBI's role in the state's Deferred Compensation Plan. He stated that he will be working closely with the Minnesota State Retirement System (MSRS) on this issue and that the MSRS Board had agreed to retain a consultant to assist in the review process. He stated that a recommendation would be brought to the Board at the June 1993 meeting as to how the SBI should proceed.

403(b) Vendor Review Committee Report

Mr. Sausen reported that a request for proposal (RFP) had been developed by the Committee and the SBI's 403(b) consultant, The Wyatt Company. He stated that the RFP had been sent to approximately 300 companies, that 18 companies had responded and that 16 companies met the RFP's minimum criteria. He stated that based on the rankings and RFP responses, the Committee had decided to recommend nine companies (Aetna Life; Great West Life, IDS Life; Metropolitan; Minnesota Mutual; Mutual of America; Nationwide, United Investors; and VALIC) and interview three companies (Fortis, Safeco and Northern Life/Northwestern National) as a possible tenth vendor choice. He stated that the Committee concluded that none of the three candidates should be recommended as the tenth insurance vendor and that the Committee was recommending that the SBI execute contracts with only the nine companies recommended and listed above.

In response to questions from Mr. Carlson, Ms. Eller stated that the legislation stipulates that the ten companies hired must meet the criteria and since only nine meet the criteria, hiring nine would satisfy the legislation. In response to a question from Mr. Carlson, Ms. Eller added that she did not feel the statute allows additional flexibility to hire fewer vendors than stated if vendors meet the criteria. Ms. Eller and Mr. Bicker both clarified that the selection of these vendors only affects those school districts that negotiate an employer match of contributions. Mr. Bicker added that some districts may use this list as

a way of reducing administrative costs by reducing the number of vendors used by employees in the district. Ms. Grove moved approval of the Committee's recommendation, as stated in the Committee Report. Mr. McGrath seconded the motion. The motion passed.

Proxy Committee Report

Mr. Sausen stated that the Proxy Committee had reviewed the restrictions on alcohol and tobacco and the financial impact of the restrictions as requested by the Board at the June 1992 meeting. He stated that the Committee had discovered that no other states operate under liquor and tobacco restrictions and that only one municipality has such a restriction. Mr. Sausen stated that the Committee was recommending that the restrictions on liquor and tobacco be dropped. Mr. Carlson moved approval. Mr. McGrath seconded the motion for discussion.

Mr. Humphrey voiced his opposition to the restrictions being lifted. He stated that he feels the Board's responsibility not only lies with the active and retired participants, but with the taxpayers and the State of Minnesota itself. He noted that the companies affected by the restriction face increasing financial risk due to lawsuits regarding the health risks of tobacco. He said that as chair of the D.A.R.E. Advisory Council, he is pushing hard to say to young people that there are choices other than alcohol, tobacco and mood altering chemicals. He added that more people die from tobacco related causes than any other kind of drug and that it seemed totally inconsistent for the State to invest in these death producing products on one hand and to discourage their use on the other. He also questioned the Proxy Committee's alternative recommendation that the SBI ask companies to eliminate these lines of business through the shareholder resolution process. He asked if such an action could be considered prudent since it would be equivalent to asking a company to eliminate a profit center. Mr. Humphrey suggested that the Board take additional time to discuss the issue among themselves and with members of the legislature and he moved that the motion be tabled.

In response to a question from Mr. Carlson, Ms. Yeomans stated that over the last five years the funds had lost approximately \$120 million due to the liquor and tobacco restrictions. Mr. Carlson argued in favor of lifting the restrictions. He said that, as a government, we legalize the sale of liquor and tobacco, we tax it and therefore realize revenue from it but no one is suggesting that we prohibit its sale. He added that the SBI's decision to not purchase a company's stock does not impact a company but it does affect retirees. He stated that the Board could be exposed to legal challenges regarding their fiduciary responsibility. He added that he feels that its important not to mix moral decisions with economic decisions and noted the seriousness of participants losing \$120 million.

Mr. Humphrey expressed concern over how the Board should respond to other restrictions (e.g., South African restrictions) if the standard of prudence was simply where could the most money be made. He said prudence means setting objective standards and

measuring progress within a long range framework. He emphasized the risk that taxpayers, including retirees and active members, face regarding increased health care costs due to liquor and tobacco. He said the Board ought to be prudent with its investments in this area and he renewed his motion to table the recommendation.

In response to a question from Ms. Growe, Mr. Bicker stated that the liquor and tobacco restrictions and the American Home Products restriction are the only restrictions that affect both the active and passive managers. Ms. Growe asked if the 0.41% reduction in returns cited in the Committee report referred to the index fund holdings or the entire portfolio. Mr. Sausen said the impact on the actively managed portfolios is unknown because the managers may or may not have chosen to purchase those stocks if they had not been restricted.

Mr. Dayton stated that on a personal basis he agreed with Mr. Humphrey on the potential dangers of liquor and tobacco. However, he said he was not clear on the discretion Board members had given the definition of fiduciary duty. He added that he is concerned about the potential losses caused by these restrictions now that the Post Fund has implemented the new benefit increase formula. He stated that he believes this issue cannot be avoided but that he is willing to defer making a decision on it for three months. He added that subject to legislative direction, he did not see any other alternative but to lift the restrictions or to at least treat the liquor and tobacco restrictions in the same manner as the South Africa restrictions.

Mr. Humphrey restated his belief that the statutes list three separate entities to whom the Board has a fiduciary responsibility. He stated that those entities are the active and retired members of the plan, the taxpayers and the State of Minnesota. He said he did not think the Board would be considered imprudent by maintaining the prohibition. He asked for a three month period to consider the issue further.

Mr. McGrath commended the IAC for giving the Board what they consider a prudent judgment on this matter. He stated that while he could not disagree with Mr. Humphrey regarding the long standing nature of the Board's policy, he feels that there is new information that needs to be considered. He referenced the historical financial impact of the restrictions and the new benefit increase formula for the Post Retirement Fund. He stated his support of the Proxy Committee's recommendation.

Ms. Growe stated that initially she was planning on voting to delete the liquor and tobacco restrictions but that after hearing Board member comments, she was now undecided on the issue. She added that she believes there are some key differences between having restrictions on the index fund and the actively managed funds. She asked what the impact would be of postponing a decision for three months. Mr. Sausen responded that there could be a potential loss of return. Mr. Humphrey noted the potential for lawsuits against the affected companies.

Mr. Carlson commented that the Board has hurt Minnesota companies with some of its policies and has not accomplished anything with its investment restrictions related to social issues. He said that he believes the taxpayers of Minnesota do not want a bankrupt pension plan and said Board members have a constitutional responsibility to invest prudently and make profits. He asked that the restrictions be lifted without delay.

Mr. Humphrey renewed his motion to table the report. Ms. Growe seconded the motion. The motion passed. Mr. Dayton moved that the report be put on the Board's agenda for the March 1993 meeting. Mr. Humphrey seconded the motion. The motion passed.

Administrative Committee Report

Mr. McGrath reported that the Committee had reviewed the FY94-95 budget documents and staff's Disaster Recovery Plan, both of which are informational items for the Board. He reviewed the three recommendations needing the Board's approval. He reported that the first recommendation is the retention of Financial Control Systems as the vendor for the SBI's internal accounting system. He stated that the second recommendation is approval of the SBI's Administrative Bill for the 1993 Legislative Session and he referred members to the Committee report for a listing of the legislative items. He reported that the third recommendation involves the Executive Director's evaluation process and he stated that the Committee did not come to any conclusion regarding changes to the process. Therefore, the Committee was recommending that the Board discuss the process to determine if adjustments are necessary.

In response to a question from Ms. Growe, Mr. McGrath stated that advisory boards are required by statute to be renewed by the legislature on a periodic basis. He added that the SBI's bill would exempt the IAC from this review process. Mr. McGrath moved approval of all three of the Committee's recommendations, as stated in the Committee Report. Ms. Growe seconded the motion. The motion passed. (Mr. Humphrey asked to be recorded as voting "no" on the provision to exempt the IAC from automatic "sunset.")

Stock and Bond Manager Committee Report

With the Board's approval, Ms. Yeomans stated that she would confine her remarks to only those items requiring motions. She stated that the first recommendation is to adopt the staff position paper on internal cash management and to approve a new benchmark which would be reviewed again in two years. Ms. Growe moved approval of the recommendation, as stated in the Committee Report. Mr. Dayton seconded the motion. The motion passed.

Ms. Yeomans stated that the Committee's second recommendation is to negotiate and execute a contract for a guaranteed investment contract (GIC) with Norwest Bank, Minneapolis for the 1992-1995 GIC bid in the Fixed Interest Account. Ms. Growe moved approval of the recommendation, as stated in the Committee Report. Mr. McGrath seconded the motion. The motion passed.

Ms. Yeomans reported that the third recommendation from the Committee is to allocate approximately \$300 million to hire 6-10 emerging managers. She noted that two IAC members do not support this recommendation based on their own experiences in this area. In response to a question from Ms. Growe, Ms. Yeomans explained that the two members in opposition believe that the program would be expensive and time consuming. She said they believed the end result would be that either the manager becomes too large and their performance deteriorates or that the manager restricts its level of assets and can not be fully funded at a future date. In response to questions from Mr. Carlson and Ms. Growe, Mr. Bicker said that any firm with assets between \$50-250 million would be considered an emerging manager. In response to a question from Mr. Dayton, Mr Bicker explained that many of the managers staff has researched over the years have had good performance early on in their existence when they had fewer assets and accounts under management. He added that the objective of the program is to get at least the same, if not better, rates of return from these managers. Mr. McGrath moved approval of the recommendation, as stated in the Committee Report. Mr Dayton seconded the motion. The motion passed.

Ms. Yeomans stated that the final recommendation from the Committee involves the Bond Manager Monitoring Program. She referred the Board members to the list of the ten managers being recommended. Mr. McGrath moved approval of the Committee's recommendation, as stated in the Committee Report. Mr. Humphrey seconded the motion. The motion passed. Mr. Bicker noted that domestic stock and bond manager searches would be conducted during the next quarter using the Manager Monitoring Program candidates approved by the Board.

Mr. Dayton requested that the Stock and Bond Manager Committee review the Manager Continuation Policy and return a recommendation to the Board at the June 1993 meeting. Mr. Bicker agreed and stated that this review is a scheduled part of his workplan for FY1993.

Alternative Investment Committee Report

Ms. Yeomans stated that one of the SBI's investments with First Reserve is involved in litigation which potentially could force them into Chapter 11 bankruptcy. She stated that the Committee is recommending that the Executive Director, legal counsel and the Alternative Investment Committee be granted authority to act in the SBI's best interest if decisions need to be made quickly prior to future Board meetings. Ms. Growe moved approval of the Committee's recommendation, as stated in the Committee Report. Mr. Humphrey seconded the motion. The motion passed.

Ms. Yeomans stated that the Committee is also recommending that the Board reconsider a recommendation that was made at the September 1992 meeting for an investment in a private equity fund called Great Northern Partners. Mr. McGrath added that he had voted against the recommendation in September 1992 but that he was more familiar with the investment now and that he supports the recommendation. Mr Dayton moved approval

of the Committee's recommendation, as stated in the Committee Report. Mr. McGrath seconded the motion. The motion passed.

Asset Allocation Committee Report

Ms. Yeomans stated that a motion was made and approved by all but one member of the IAC regarding the removal of all investment restrictions. Ms. Yeomans read the motion:

Consistent with our fiduciary duty to plan beneficiaries, taxpayers and the State of Minnesota, the Investment Advisory Committee (IAC) recommends that the State board of Investment act in a timely manner to remove all investment restrictions, except those resulting from objective risk/return considerations or required by statute, on the investment of employee benefit assets for which the Board has fiduciary responsibility. Further, the IAC recommends that no such new restrictions should be undertaken.

Mr. Carlson expressed his personal appreciation of the IAC's action.

International Investing Guidelines Task Force Report

Mr. Sausen reported that the Task Force had examined three issues: worker rights, human rights and environmental concerns. He stated that the Task Force had categorized countries into three groups; the first group which was labeled "Acceptable" includes countries that have legal protection practices in place and generally respect worker and human rights; group two was labeled "Questionable" and consisted of countries that have legal protections in place, but have violations that had been documented; and group three was labeled "Unacceptable" and includes these countries lacking basic protection for human and worker rights. In response to questions from Mr. Carlson, Mr. Sausen reported that the data used for the analysis was from the U.S. State Department. Mr. Carlson voiced concern that the SBI should not take positions that are contradictory to U.S. government policies regarding foreign trade policy. He added that these classifications were also contradictory to his own efforts as Governor to increase Minnesota trade opportunities with some of these countries. Mr. Sausen clarified that the Task Force was not prohibiting investing in any country, but that to invest in a country in Group II, a manager would be required to write a letter to the SBI informing the Board of any investments and that for Group III investments the manager would be required to appear before the Board to present its reasons for making the investment.

Mr. Dayton noted that information that had been presented to the Task Force had indicated that all but a small percentage of a manager's portfolio would be invested in countries that make up the EAFE index and that all but one of the EAFE countries fall in the Group I category. Therefore, he stated that only a small percentage of the portfolio

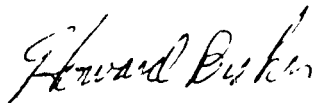
might be invested in countries included in Group II and III. Mr. Dayton commended the Task Force on a job well done and stated that he supports the principals and guidelines that the Task Force has established. Mr. Carlson stated that he did not agree in principal and that he feels the lists, lables and groupings of the countries are inappropriate. Mr. Humphrey also commended the Task Force and stated that he agreed with Mr. Dayton that at least this categorizing of countries gives the Board some notice as to when investments are going to be made in particular countries. Mr. Carlson said that he felt this action directly contradicted the Board's fiduciary standard. After further discussion, Ms. Growe moved that the words "Acceptable", "Questionable" and "Unacceptable" be deleted from the narrative in several places in the Task Force Report. Mr. Dayton seconded the motion. The motion passed. Mr. Dayton moved approval of the Task Force report, as amended. Ms. Growe seconded the motion. The motion passed.

In response to a question from Ms. Growe, Mr Emkin stated that the SBI had originally expected that 20-30% of the trades required to build the international index fund could be "crossed" with other index fund investors. He said that the actual experience during the first two months was over 80% crossed which saved the SBI an additional \$1-2 million in transactions costs. Mr Carlson stated his approval of the savings.

Mr Bicker asked for clarification on the status of the Proxy Committee Report. He said it was his understanding that the Proxy Committee Report would be put into the next Board folder. Mr Humphrey said that his motion was to table. Mr. Carlson said that as a result, the Proxy Committee Report would automatically be brought back to the Board.

The meeting was adjourned at 10:26 A.M.

Respectfully submitted,



Howard J. Bicker
Executive Director

**AGENDA
INVESTMENT ADVISORY COUNCIL
MEETING**

**Wednesday, March 10, 1993
2:00 P.M. - SBI Conference Room
Room 105, MEA Building - Saint Paul**

TAB

- 1. Approval of Minutes of December 8, 1992**

- 2. Report from the Executive Director (H. Bicker)**
 - A. Quarterly Investment Review (October 1-December 31, 1992) **A**
 - B. Portfolio Statistics (December 31, 1992) **B**
 - C. Administrative Report **C**
 1. Budget and travel reports
 2. Legislative update
 3. SBI/IAC meeting dates for calendar 1993

- 3. Report from the Manager Search Committees (P. Sausen) **D****
 - A. Recommendation to retain domestic active stock managers (Brinson, IAI, Jundt, Lincoln, Oppenheimer, Weiss Peck)
 - B. Recommendation to retain domestic active bond managers (BEA, Goldman, Standish, IDS, TCW)
 - C. Recommendation to retain international active stock managers (Baring, Brinson)

- 4. Reports from the Investment Advisory Council**
 - A. Asset Allocation Committee (J. Bohan) **E****
 1. Update on Post Fund asset allocation transition
 2. Review of interim performance benchmarks for the Post Fund
 3. Update on international issues
 4. Discussion of fund performance standards

 - C. Stock and Bond Manager Committee (J. Eckmann) **F****
 1. Review of manager performance
 2. In-depth review of GeoCapital
 3. Approval of new performance based fee formula
 4. Recommendations on manager allocations
 5. Recommendation on contract periods

 - D. Alternative Investment Committee (D. Veverka) **G****
 1. Results of annual review sessions
 2. Status of First Reserve
 3. Recommendation for commitment to a venture capital manager (Golder Thoma)

STATE BOARD OF INVESTMENT

Minutes Investment Advisory Council Meeting December 8, 1992

The Investment Advisory Council meet on Tuesday, December 8, 1992 at 2:00 P.M. in the State Board of Investment (SBI) Conference Room, 55 Sherburne Avenue, St. Paul, Minnesota.

MEMBERS PRESENT: Gary Austin, David Bergstrom; John Bohan; Jim Eckmann; Ken Gudorf; Laurie Fiori Hacking; Keith Johnson; Peter Kiedrowski; Han Chin Liu; Gary Norstrem; Barbara Schnoor; Deborah Veverka; and Jan Yeomans.

MEMBERS ABSENT: John Gunyou, David Jeffery, Malcolm McDonald and Michael Troutman.

SBI STAFF: Howard Bicker; Beth Lehman; Jim Heidelberg; Deborah Griebenow; Charlene Olson and Linda Nadeau.

OTHERS ATTENDING: Maureen Culhane, Richards & Tierney; Allan Emkin, Pension Consulting Alliance; Secretary of State Joan Anderson Growe; State Auditor Mark B. Dayton; State Treasurer Michael A. McGrath; John Hagman; John Manahan; Christie Eller; Cathy Haukedahl; O.M. (Mike) Ousdigian; Lisa Rotenberg; Peter Sausen; Ed Stuart, REAM; Robert Tennessen; Elaine Voss; Robert Whitaker; and John Wicklund, TRA.

Ms. Yeomans called the meeting to order and the minutes of the September 8, 1992 meeting were approved. Ms. Yeomans noted a change in the order of items presented on the agenda, stating that after the Executive Director's Report the following committee reports would be addressed: Proxy Committee, Asset Allocation Committee, and International Investing Guidelines Task Force.

Executive Director's Report

Mr. Bicker, Executive Director, referred Board members to Tab A of the meeting materials. He stated that the Basic Funds had exceeded the inflation rate over the last ten years (Basics Total Fund 13.3% vs. Inflation 3.7%), slightly outperformed the composite index over the five year period (Basics Total Fund 9.0% vs. Composite 8.9%), and underperformed the median fund (Basics-Excluding Alternative Assets 9.3% vs. Median Fund 10.2%). Mr. Bicker stated that the Basic Funds' market value increased by 2% for the quarter ending September 30, 1992. He reported that the Basic Funds had matched

the composite index for the quarter (2.5%) and had outperformed the composite for the year (Basic Total Fund 9.4% vs. Composite 8.6%). He stated that the Basic Funds had slightly underperformed the median fund for the quarter (Basics-Excluding Alternative Assets 3.1% vs. Median 3.5%) and year (Basics-Excluding Alternative Assets 11.0% vs. Median 11.3%). Mr. Bicker stated that the data containing the poor performance from October 1987 would drop out of the five year measurement period next quarter, resulting in a very different set of return figures. He stated that the stock segment matched target for the quarter (Basic stocks 2.5% vs. Wilshire 5000 Adjusted 2.5%) but had trailed it for the year (Basic stocks 9.8% vs. Wilshire 5000 Adjusted 10.0%) while the bond segment slightly outperformed its target for the quarter (Basic bonds 4.4% vs. Salomon BIG Index 4.3%) and had outperformed it for the year (Basic bonds 13.0% vs. Salomon BIG 12.7%). Mr. Kiedrowski complemented the SBI on its performance during the last year and noted the Basic Funds had surpassed both the composite index and the median fund during the period

Mr. Bicker directed members to the Post Retirement Fund summary. He stated that the fund increased in value by 5% during the third quarter due to positive cash flow and strong performance by the bond segment. He reported that the benefit increase is 4.6%, payable January 1, 1993. Mr. Bicker stated that the bond segment is being measured against the Shearson Lehman Government/Corporate Bond Index. He noted that the stock segment is still in a transition phase and had underperformed for the quarter (Post stocks 0.9% vs. Benchmark 2.6%). He added that the bond segment had outperformed its benchmark for the latest quarter (Post bonds 5.2% vs. Shearson Index 4.9%). He said the total fund essentially matched the composite index (Post Fund 4.5% vs. Composite 4.6%).

Mr. Bicker reported that the Assigned Risk Plan outperformed its composite index for the quarter (Total Fund 4.3% vs. Composite 3.8%) and year (Total Fund 13.8% vs. Composite 12.2%). He noted that the stock segment had underperformed for the quarter (Equity segment 4.7% vs. Benchmark 4.9%) but he added that the bond segment had outperformed its benchmark for the quarter (Bond segment 4.3% vs. Benchmark 3.7%). Mr. Bicker stated that as of September 30, 1992, the SBI was responsible for nearly \$20 billion in assets.

Mr. Bicker referred members to Tab C of the meeting materials for updates on the budget and travel. He reminded members that the post benefit increase payable in January 1993 is the last one to be calculated under the old formula. Mr. Bicker stated that as part of his FY1993 workplan, a review of the state's Deferred Compensation Plan will be conducted. He stated that he will be working closely with the Minnesota State Retirement System (MSRS) and that the MSRS Board had agreed to retain a consultant to assist in the review process. He stated that a recommendation would be brought to the Board at the June 1993 meeting as to how the SBI should proceed.

403(b) Vendor Review Committee Report

Mr. Sausen reported that a request for proposal (RFP) had been developed by the Committee and the SBI's 403(b) consultant, The Wyatt Company. He stated that the RFP had been sent to approximately 300 companies, that 18 companies had responded, and that 16 met the RFP's minimum criteria. He stated that based on the rankings and RFP responses, the Committee had decided to recommend nine companies (Aetna Life; Great West Life; IDS Life; Metropolitan; Minnesota Mutual; Mutual of America; Nationwide; United Investors; and VALIC) and interview three companies (Fortis, Safeco and Northern Life/Northwestern National) as a possible tenth vendor choice. He stated that the Committee concluded that none of the three candidates should be recommended as the tenth insurance vendor and that the Committee was recommending that the SBI execute contracts with only the nine companies listed above.

Mr. Bicker stated that initially the legislature had authorized the SBI to retain a consultant on a one-time basis with the winning vendors paying all costs. He stated that the SBI is requesting legislative authority to maintain a consultant on an on-going basis under the same payment arrangement. Ms. Yeomans stated that this Committee report was for the IAC's information and that a motion was not required.

Proxy Committee Report

Ms. Sausen distributed a copy of the Proxy Committee Report (see Attachment A) and stated that at the June 1992 Board meeting the Board had requested that the Proxy Committee review the restrictions on alcohol and tobacco. He reported that the Committee had examined historical return information on the impact of the restrictions, reviewed litigation regarding tobacco companies and had completed a study on other pension plans which have liquor and tobacco restrictions. He stated that the Committee found that there has been a negative impact on the SBI's returns as a result of the restrictions and that no other state pension fund and only one municipality operates under any liquor or tobacco restrictions.

Mr. Sausen reported that the Committee had identified three alternatives concerning the SBI's policy on liquor and tobacco: 1) to make no changes to the current restriction policy; 2) to withdraw the current restrictions; or 3) to change the current policy prohibiting ownership of affected securities to a policy that focuses on the actively managed portfolio, similar to the SBI's policy concerning companies with direct investment in South Africa, (i.e., active managers may purchase restricted securities if the managers inform the SBI that they believe it would be a breach of their fiduciary duty not to do so). Mr. Sausen stated that the Committee's recommendation is to lift the investment restrictions concerning liquor and tobacco companies and become a more active shareholder, as outlined in the conclusion of the Committee Report. Ms. Yeomans requested that discussion on this recommendation be withheld until after the other Committee reports had been presented.

Asset Allocation Committee Report

Mr Bohan reviewed the current long-term policy asset allocation for the Basic Retirement Funds and stated that the Committee had reviewed and endorsed modifications to the weightings of the Composite index proposed by SBI staff. He explained that when the international stock segment is fully funded, staff has proposed that the composite be weighted as: 50% domestic stocks; 10% international stocks, 1% cash equivalents; that each of the alternative asset classes (private equity, real estate and resources) will be set at the preceding quarter's ending actual percentage of the total portfolio; and that domestic bonds make up the remaining allocation. He added that staff's proposal during implementation of the international stock program also allows for the international stock weighting to be set at the preceding quarter's ending actual percentage of the total portfolio, with the domestic stock weighting being 60% minus the international percentage established above.

Mr. Bohan updated members on the funding status of the international index manager stating that 87% of the \$200 million in trades had been "crossed" resulting in little or no transaction costs. Mr. Bicker confirmed that an additional \$100 million had also been invested in December

Mr. Bohan reported that as of November 1, 1992 the Post Retirement Fund was invested 20% in stocks, 76% in bonds and 4% in cash, thus making progress towards its new long-term allocation targets. He suggested that the Asset Allocation Committee would review the composite index used to measure performance for the Post Fund

Mr. Bohan stated that the International Investing Guidelines Task Force had met during the quarter and had presented the Asset Allocation Committee with its report. He stated that the Committee had noted the difficulty of the task assigned to the Task Force and he commended the Task Force on a job well done. He added that the Committee felt that the full IAC should be included in the discussion on the findings of the Task Force and that therefore the Committee had taken no action on the Task Force's report at the Asset Allocation Committee meeting.

International Investing Guidelines Task Force Report

Mr Sausen referred members to Tab I of the meeting materials. He explained that the Task Force had examined three major issues: worker rights, human rights and environmental concerns. Mr. Sausen reviewed each portion of the Task Force Report for the Council.

Mr. Sausen reported that the Task Force was recommending adoption of the following investment guidelines regarding worker and human rights issues for its international investing program: the SBI may invest in the markets of countries that legally protect internationally recognized worker and human rights or in countries which are moving towards protection for these rights; the SBI's active managers should not be restricted regarding countries included in "Group I, Acceptable"; the SBI's active managers may

invest in "Group II, Questionable" and "Group III, Unacceptable" countries if the manager believes it would be a breach of fiduciary responsibility not to do so. He added that for Group II countries the manager must notify the SBI in writing and for Group III countries the manager must appear before the Board to present its reasons for the decision to do so. He said that the Task Force will review the lists of countries periodically and recommend appropriate additions or deletions. Mr. Sausen stated that at this time, the Task Force is also recommending that the SBI vote its international proxies on environmental issues consistent with its current proxy voting policies.

Ms. Yeomans stated that before approving any recommendations from the Proxy Committee or the Task Force she would open the floor to discussion regarding investment restrictions in general.

Mr. Bohan stated that a number of IAC members have become increasingly concerned about the investment restrictions that are placed on the SBI's investment managers. He noted the costs to the plan participants and stated that he believes that accepting lower investment returns in exchange for taking a position on social issues is not consistent with Minnesota statutes. He said that investment theory clearly suggests that restrictions on a portfolio can only hurt its performance over time. While he commended the Proxy Committee for its action, Mr. Bohan said he felt the following motion was appropriate:

Consistent with our fiduciary duty to plan beneficiaries, taxpayers and the State of Minnesota, the Investment Advisory Committee (IAC) recommends that the State Board of Investment act in a timely manner to remove all investment restrictions, except those resulting from objective risk/return considerations or required by statute, on the investment of employee benefit assets for which the Board has fiduciary responsibility. Further, the IAC recommends that no such new restrictions should be undertaken.

Mr. Johnson seconded the motion and Ms. Yeomans opened the floor for discussion.

Mr. Gudorf stated that he feels the IAC has been consistent on the restriction issue and that he supports a policy that does not include investment restrictions. He stated that he supports Mr. Bohan's motion and he feels that the policy should be consistently applied to all the various types of investments (i.e. private equity, index and actively managed). Mr. Liu stated that he feels the SBI and IAC's responsibility is to maximize the rate of return to participants and that there should be no restrictions.

Mr. Bergstrom stated that the MSRS Board feels very strongly that restrictions should apply to international investments and that the MSRS Board supports the restrictions recommended by the International Investing Guidelines Task Force. Ms. Hacking asked whether Mr. Bohan's motion would apply to international investments. Mr. Bohan

responded by saying that he feels any restrictions that are not based on risk/return criteria are not appropriate. Ms Hacking stated that she would be more comfortable if she knew how Mr Bohan's broader motion affected the individual restrictions such as liquor and tobacco and the potential international investment restrictions. Mr Bergstrom stated that he would have difficulty supporting Mr. Bohan's motion

In response to a question from Ms. Yeomans, Ms. Veverka stated that Honeywell has chosen not to invest in certain countries based on risk considerations but that the decision was based on appropriate financial data and not on a moral basis. She said that risk/return considerations should always be the primary consideration of any investment decision and she added that she understood that context to be the focus of the Board's fiduciary statute. Ms Yeomans said she felt the notification provision in the Task Force report causes problems, i.e., it will be long after the fact that we would be able to determine if the manager behaved any differently with the State's portfolio due to the policy.

Mr. Kiedrowski stated that he supports Mr. Bohan's motion. He said he felt everyone was struggling with the restriction issue because they deal with some moral imperatives that many people are inclined to support. He commented that in his opinion however, the motion is the only correct position to take given the way the statute is currently written. He acknowledged that he has been on all sides of this issue, both publically and privately, but he kept coming back to economic requirement in the statutory fiduciary standard. He added that any restrictions placed on investments should be addressed through the legislative process and not by the State Board of Investment. Ms. Yeomans agreed.

Mr. Eckmann stated that he agreed on a philosophical basis with Mr Bohan's motion, but stated that he feels that there could be restrictions involving human and worker rights if those issues can be tied to the financial stability of a particular country. Mr. Johnson stated that as a retiree representative he feels that the SBI's responsibility is to the present and future retirees and how their benefits can be maintained and increased

Ms. Yeomans asked for a vote on the motion. The motion passed. Ms. Yeomans noted Mr Bergstrom's vote against the motion and stated that the IAC would go forward with strong support.

Mr. Emkin noted that the Task Force did cite the economic and financial relationships involved in their findings. He said, in his opinion, the Task Force report was consistent with the motion that was just approved.

Mr. Sausen clarified that under the proposed guidelines from the International Task Force there are no restrictions prohibiting investments in any of the countries. He added that countries categorized in Group II require a letter from the manager informing the Board of their investment and investments in Group III countries require the manager to appear before the Board to explain why the investment was made. Mr. Norstrem questioned the purpose of the letter from managers for Group II investments and whether any response or tracking of that information would take place. Mr. Eckmann stated the difficulty of

evaluating the guidelines and asked if the determination of a country's status was based on where the company was domiciled or where it does most of its work and gains most of its profits. Mr. Johnson reminded members that if the SBI owns stock in companies it can be an effective voice by voting the proxies. Mr. Norstrom noted that the Board would receive copies of the reports from the Proxy Committee and the Task Force and suggested that no other formal action on those issues by the IAC is necessary. There was no opposition to Mr. Norstrom's suggestion.

Stock and Bond Manager Committee Report

Mr. Eckmann stated that the Committee had reviewed manager performance and had conducted three in-depth manager reviews of Lincoln Capital, Waddell & Reed and Wilshire Associates. He noted that there was a concern regarding the appropriateness of Waddell's benchmark and that more work would be done on that issue with the manager. He stated that staff and the Committee had agreed that all three managers should continue to be retained as managers for the SBI.

Mr. Eckmann reported that the Committee had reviewed a staff position paper on internal cash account investment guidelines. He stated that staff is recommending a new benchmark for the Treasurer's Cash Pool in which 75% of the return is tied to the SBI's custodian bank's Short Term Investment Fund (STIF) and 25% is tied to the return of the Merrill Lynch 1-3 year index. He noted that the Committee is concerned that since the maturity of the fund fluctuates due to the state's cash flow needs that the maturity structure of the benchmark and the actual portfolio could be significantly different. He added that while the Committee feels the proposed benchmark is an aggressive standard, they feel it represents a better alternative than using only the 91 Day T-bill benchmark. Therefore, he stated, that the Committee approves the proposed benchmark but feels it should be reviewed in two years and that performance vs. 91 Day T-bills should continue to be reported. Mr. Norstrom moved approval of the Committee's recommendation, as stated in the Committee Report. Mr. Bohan seconded the motion. In response to questions from Ms. Veverka and Mr. Gudorf, Mr. Bicker discussed the diversification and maturity guidelines for the Treasurer's Cash Pool. In response to questions from Mr. Kiedrowski, Mr. Bicker reviewed the procedures staff take when an issue is downgraded and emphasized that staff take a very conservative approach to investing the cash pool in order to avoid any potential defaults/loss of principal. The motion made earlier by Mr. Norstrom passed.

Mr. Eckmann stated that the results of the 1992-1995 GIC bid are that staff and the Committee are recommending that the bid be awarded to Norwest Bank Minnesota. Mr. Bicker noted that this is a synthetic GIC and he reminded members that the SBI had new legislative authority to purchase synthetic GIC's. He added that the bids were higher on synthetic GIC's than they were on straight GIC's when the bid took place in October 1992. Mr. Eckmann moved approval of the Committee's recommendation, as stated in the Committee Report. Mr. Bergstrom seconded the motion. The motion passed. (Mr. Kiedrowski was noted as abstaining.)

Mr Eckmann stated that staff and the Committee are recommending that the SBI proceed with a search for emerging managers. He reviewed the rationale for the decision and stated that proposed total assets allocated to the program is \$300 million or \$30-50 million each for 6-10 managers. He added that initially these managers would be evaluated against a published index instead of a benchmark and that at the end of three year contract period the manager would either receive additional assets or be dismissed. Mr Eckmann moved approval of the recommendation, as stated in the Committee Report. Mr Johnson seconded the motion. Ms Veverka and Ms. Yeomans both related their own experiences in this area and stated that this type of program was costly both in terms of staff time and money. They noted the possibility of managers experiencing too rapid growth which can result in poor performance, or managers restricting their level of assets under management and not being able to accept the additional funding later, or managers who have a short life span and discontinue business. Mr. Bicker acknowledged these concerns but stated that staff has a great deal of interest in this area and would still like to proceed. The motion made earlier by Mr. Eckmann passed.

Mr. Eckmann stated that the Committee is recommending that ten managers be included in the Bond Manager Monitoring Program. Mr. Gudorf moved approval of the recommendation, as stated in the Committee Report. Mr. Bergstrom seconded the motion. The motion passed.

Mr. Bicker reviewed the time frames for the upcoming domestic equity, domestic fixed income and passive stock/active country manager searches and asked members to inform him if they had a special interest in being involved in a particular search.

Alternative Investment Committee Report

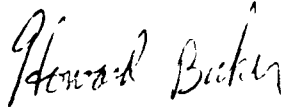
Ms Veverka stated that the current allocation to alternative investments is 13.2%, including unfunded commitments. She reported that several annual review sessions were conducted during the quarter and that they produced no major surprises.

Ms Eller explained the litigation involving partnership with First Reserve and Ms. Veverka stated that the Committee is recommending that the Board authorize the Executive Director, along with legal counsel and the Committee, to act in the SBI's behalf in the event decisions need to be made before the Board could be convened. Mr. Gudorf moved approval of the Committee's recommendation, as stated in the Committee Report. Mr Kiedrowski seconded the motion. The motion passed.

Ms. Veverka stated that the Committee is recommending to the Board that they reconsider an investment with Great Northern Capital Partners, L.P. Mr. Norstrom moved approval of the recommendation, as stated in the Committee Report. Mr. Gudorf seconded the motion. The motion passed.

The meeting adjourned at 3:42 P.M.

Respectfully submitted,

A handwritten signature in cursive script that reads "Howard Bicker".

Howard J. Bicker
Executive Director

Attachment

COMMITTEE REPORT

DATE: December 7, 1992

TO: Members, State Board of Investment

FROM: **Proxy Committee**

At its meeting in June 1992, the State Board of Investment (SBI) received a report from the Investment Advisory Council (IAC) which recommended that the SBI's investment restriction on liquor and tobacco companies be eliminated. In response, the Board referred the issue to a committee of the SBI for further review. The Proxy Committee has completed its review and is now making its report to the Board.

Impact of Existing Policy on Liquor and Tobacco

The SBI has had a long standing policy of not holding the stock of any company which obtains more than 50% of its revenues from the sale of liquor or tobacco. This restriction has been in place for more than two decades. Arguments which have been made for the policy include concerns that companies obtained more than 50% of revenues from alcohol and tobacco are imprudent investments because of the companies exposure to potential liability for damages from litigation regarding health risks and because investment in such companies could lead to an increase in long term costs to beneficiaries, the taxpayers of the state and the state as whole which are attributable to health risks of alcohol and tobacco.

The IAC's recommendation to lift the restriction on liquor and tobacco was based on data that compared the returns of the Wilshire 5000 stock index with and without the restricted securities from January 1, 1980 through March 31, 1992. The data showed that the restrictions reduced returns of the index by approximately 0.4% on an annualized basis during that period.

The Proxy Committee reviewed similar data for the period from January 1, 1980 through September 30, 1992 (see **Attachment A**). The data show that during the first half of the 1980's, the impact of the restriction was positive in some years and negative in others. Since the mid 1980's, the impact has been consistently negative. For the entire period, the restriction reduced returns of the Wilshire 5000 by 0.41% (41 basis points) on an annualized basis. The impact on the actively managed portion of the stock segment is more difficult to determine since active stock managers may or may not have chosen to include some of the securities in their portfolios if they had not been restricted by the SBI.

It is not possible to determine whether the impact of the SBI's liquor and tobacco policy will be positive or negative in future periods. The actual result will depend, in large part, on prevailing business and economic conditions. However, the Proxy Committee notes that tobacco companies are exposed to potential liability for damages arising from ongoing litigation concerning the health risks associated with smoking. The recent U.S. Supreme Court decision in *Cicidalone v Liggett Group, Inc.*, 112 S. Ct. 2608 (1992) permitting claims based on express warranty, intentional fraud, misrepresentation or conspiracy to be asserted against the tobacco industry has only served to heighten these concerns. Since the damage claims associated with the outstanding lawsuits are potentially very large, future verdicts or settlements adverse to tobacco companies may have a negative impact on the value of the companies and their stock.

Action of Other Pension Funds

The Committee also attempted to determine what action other pension funds have taken with respect to this issue

As you know, the SBI relies on research from the Investor Responsibility Research Center (IRRC) on a variety of corporate governance and social responsibility issues. IRRC is not aware of any state pension fund with laws or regulations which prohibit investments in liquor or tobacco companies. They have identified one municipal pension fund that has a tobacco restriction in effect at the present time. A copy of IRRC's response to our inquiry on this matter is in **Attachment B**

Several pension funds, primarily those affiliated with church or religious groups, have initiated shareholder resolutions which call for companies to stop or curtail their involvement in tobacco production, cigarette marketing, and other tobacco-related lines of business. Consistent with spirit of the SBI's policy to restrict the SBI's investment in liquor and tobacco companies, the Proxy Committee has voted SBI shares in support of many of these resolutions. Shareholder activism in this area has grown in recent years and the Proxy Committee expects that these efforts to affect corporate behavior will gain support among other shareholder groups as well.

Alternatives Identified by the Committee

The Proxy Committee identified several alternatives concerning the SBI's policy on liquor and tobacco

- Make no changes to the current restriction policy.
- Withdraw the current restrictions for the entire portfolio.
- Change the current policy prohibiting ownership of the affected securities to a policy that focuses on the actively managed portfolio similar to the SBI's policy concerning companies with direct investment in South Africa, i.e. active managers may purchase

restricted securities if the managers informs the SBI that they believe it would be a breach of their fiduciary responsibility not to do so.

Conclusion

Based on its review, the Proxy Committee recommends that the SBI lift investment restrictions concerning liquor and tobacco companies. However, due to the potential liability associated with pending litigation against several of these companies, the Proxy Committee strongly urges the SBI to become a more active shareholder on issues associated with liquor and tobacco.

The Committee recommends that the SBI direct the Proxy Committee, where feasible, to sponsor, co-sponsor and support shareholder resolutions that call for a company to reduce its involvement in liquor and tobacco production, product marketing and other related lines of business in order to diversify its business in a manner that will reduce or eliminate potential liability to legal claims associated with liquor and tobacco that may negatively impact the value of the SBI's holdings.

ATTACHMENT A

**Liquor and Tobacco Restrictions
Impact on Wilshire 5000 Returns**

Year	Wilshire Restricted (1)	Wilshire 5000	Difference
1980	32.75%	33.66%	(0.91%)
1981	(4.87)	(3.75)	(1.12)
1982	20.00	18.69	1.31
1983	22.80	23.45	(0.65)
1984	3.19	3.04	0.15
1985	32.17	32.57	(0.40)
1986	15.15	16.09	(0.94)
1987	1.93	2.27	(0.34)
1988	17.53	17.93	(0.40)
1989	28.59	29.18	(0.59)
1990	(6.84)	(6.18)	(0.66)
1991	33.89	34.21	(0.32)
1992 thru 9/30	1.27	1.58	(0.31)
Period Ending 9/30/92			
Qtr	2.54	3.07	(0.47)
1 yr	9.98	10.41	(0.43)
3 yr	8.29	8.75	(0.46)
5 yr	7.98	8.44	(0.46)
Since 1/1/80	14.61	15.02	(0.41)

(1) Securities restricted by the SBI's policy on liquor and tobacco i.e., companies who obtain more than 50% of their revenue from the sale of liquor and tobacco

Investor
Responsibility
Research
Center Inc.

Via Facsimile Transmission

December 1, 1992

Arthur Blauzda
Senior Investment Analyst
Minnesota State Board of Investment
55 Sherburne Ave. - Suite 105
St. Paul, Minnesota 55155
Fax: (612) 296-9572

Dear Mr. Blauzda:

This letter confirms our conversation earlier today. You requested the name of any state public pension system that has prohibited investment of its funds in tobacco or alcoholic beverage companies. To the best of my knowledge, no state fund has any kind of formal or informal policy prohibiting such investments. The only public fund to formally prohibit investments in such stocks at all is the Cambridge (Mass.) Retirement System, which divested of tobacco stocks in 1990. While there may be some state or municipal systems out there that do have restrictions of this kind, we have not yet discovered them.

While a number of legislatures and city councils have considered and continue to consider the idea of prohibiting investments in tobacco or alcoholic beverage companies, to my knowledge no laws or regulations that would actually affect the investment of state funds have resulted. We will certainly keep looking for future policies in this area.

Sincerely,



Trex Proffitt
Research Analyst
Social Issues Service

Tab A

ACTUARIAL VALUATIONS

MSRS, TRA, PERA General Plans

June 30, 1992

	Active (Basics)	Retired (Post)	Total (Basics & Post)
Liability Measures			
1) Current and Future Benefit Obligation	\$14.7 billion	\$5.7 billion	\$20.4 billion
2) Accrued Liabilities	10.5	5.7	16.2
Asset Measures			
3) Current and Future Actuarial Value	\$14.0 billion	\$5.7 billion	\$19.7 billion
4) Current Actuarial Value	7.2	5.7	12.9
Funding Ratios			
Future Obligations vs. Future Assets (3 ÷ 1)	95%	100%	97%
Accrued Liabilities vs. Current Actuarial Value (4 ÷ 2)*	69	100	80*

* Ratio most frequently used by the Legislature and Retirement Systems.

The funding ratio required by **Governmental Standard Accounting Board Statement No. 5** compares Cost Value of assets to the Current Benefit Obligation. This calculation provides funded ratios of 79% for the Basics, 100% for the Post and 87% for the Total, respectively.

Notes:

- 1) Present value of projected benefits that will be due to all current participants.
- 2) Liabilities attributed to past service calculated using entry age normal cost method.
- 3) Present value of future statutory contributions plus current actuarial value.
- 4) Same as required reserves for Post. Cost plus one-third of the difference between cost and market value for Basics.

Actuarial Assumptions:

- Salary Growth: 6.5%
- Interest/Discount Rate: 8.5% Basics, 5.0% Post
- Full Funding Target Date: 2020

RETURN OBJECTIVES

Basic Retirement Funds

\$9.2 Billion Market Value

	Period Ending 12/31/92	
Total Return	Actual	Compared to Objective
Total Fund over 10 years	12.4%	8.6 percentage points above
<ul style="list-style-type: none"> ■ Exceed inflation by 3-5 percentage points 		
Total Fund over 5 years	13.1%	0.5 percentage points above
<ul style="list-style-type: none"> ■ Exceed composite market index 		
Stocks, Bonds, Cash over 5 years	14.1%	0.9 percentage points above
<ul style="list-style-type: none"> ■ Exceed median fund 		

Post Retirement Fund

\$7.5 Billion Market Value

Realized Earnings	Actual	Benefit Increase Provided
Earnings over 1 year (Fiscal Year 1992)	9.6%	4.6% effective Jan. 1, 1993
Earnings over 5 years (Fiscal Years 1988-1992)	10.0%	5.0% annualized

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

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.

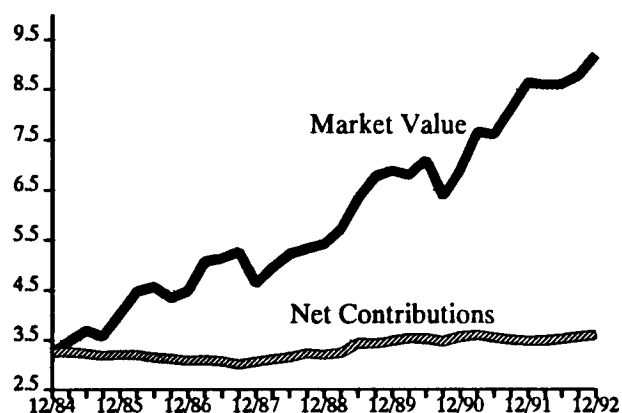
EXECUTIVE SUMMARY

Basic Retirement Funds

Asset Growth

The market value of the Basic Funds increased 4.7% during the fourth quarter of 1992. The increase resulted from good stock returns.

\$ Billions



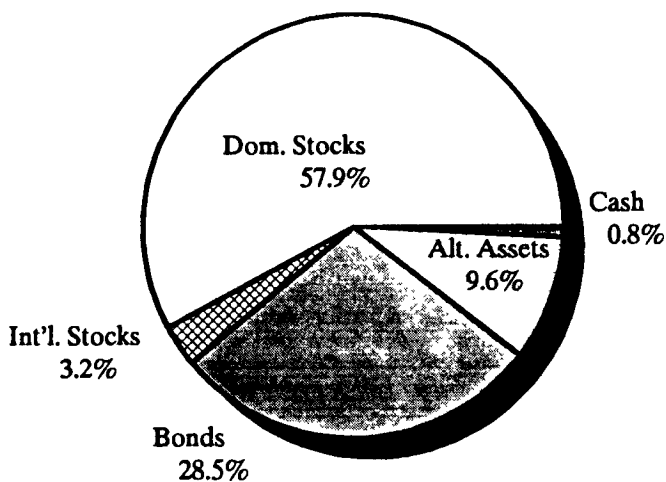
**Asset Growth
During Fourth Quarter 1992
(Millions)**

Beginning Value	\$8,781
Net Contributions	34
Investment Return	376
Ending Value	\$9,191

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.

The actual asset mix changed from the prior quarter, resulting from the reallocation from domestic stocks to international stocks and negative returns from alternative assets.



**Actual Asset Mix
12/31/92**

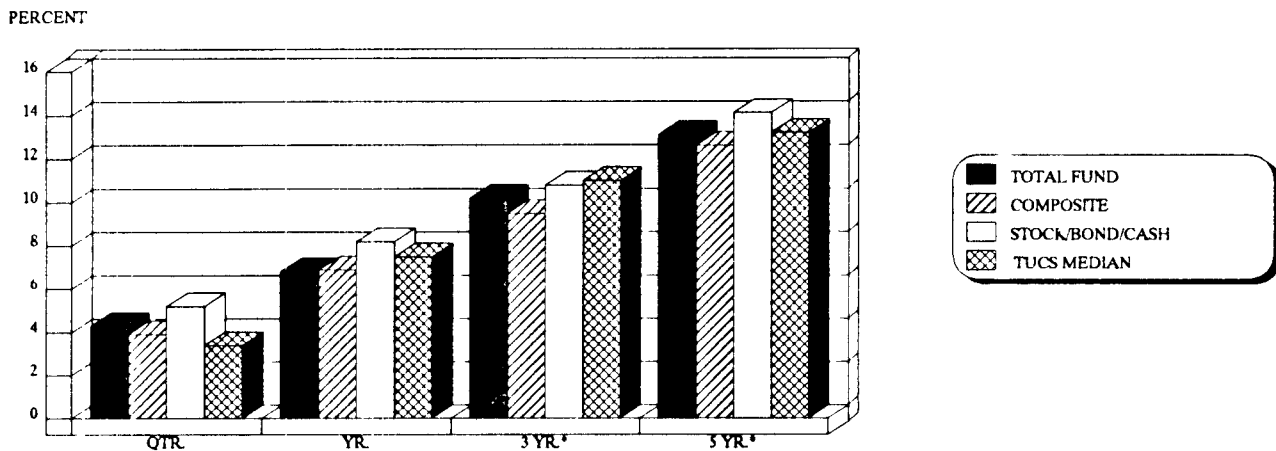
	Policy Asset Mix	Actual Mix 12/31/92	Actual Market Value (Millions)
Dom. Stocks	50.0%	57.9%	\$5,322
Int'l. Stocks	10.0	3.2	296
Bonds	24.0	28.5	2,615
Alternative Assets	15.0	9.6	886
Unallocated Cash	1.0	0.8	72
	100.0%	100.0%	\$9,191

Basic Funds (Con't.)

Total Fund Performance

The total fund including alternative assets exceeded the market composite for the quarter, but trailed it for the latest year. However, the total fund excluding alternative assets exceeded the median fund 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.



Period Ending 12/31/92

	*(Annualized)			
	Qtr.	Yr.	3 Yr.	5 Yr.
Total Fund	4.3%	6.8%	10.2%	13.1%
Composite Index **	3.9	6.9	9.5	12.6
Stocks, Bonds and Cash Only	5.2	8.2	10.8	14.1
TUCS Median Balanced Fund***	3.4	7.5	11.0	13.2

** Composite Index is weighted in a manner that reflects the policy asset mix of the Basic Funds. The index has been adjusted to reflect the restrictions on liquor and tobacco stocks.

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

Domestic Stocks

The Basic Funds' common stock segment exceeded the performance of its target for the latest quarter but trailed it for the latest year.

	(Annualized)			
	Qtr.	Yr.	3 Yr.	5 Yr.
Stock Segment	8.0%	8.9%	10.7%	15.2%
Wilshire 5000*	7.5	9.4	10.9	15.6

* Adjusted for liquor and tobacco restrictions

Domestic Bonds

The bond segment of the Basic Funds exceeded the performance of its target for the latest quarter and year.

	(Annualized)			
	Qtr.	Yr.	3 Yr.	5 Yr.
Bond Segment	0.5%	7.7%	11.1%	11.0%
Salomon Broad Index	0.3	7.6	10.8	11.0

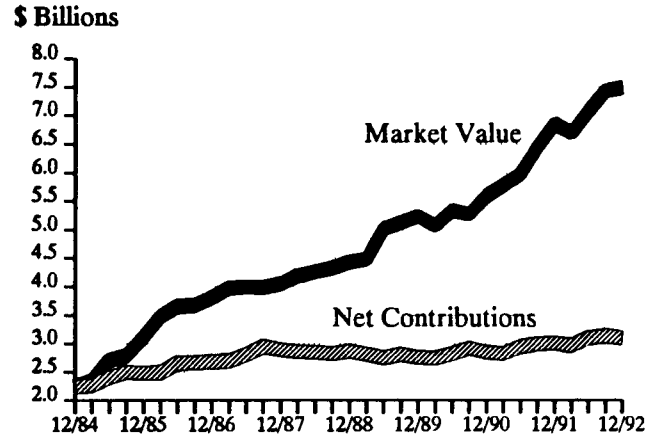
EXECUTIVE SUMMARY

Post Retirement Fund

Asset Growth

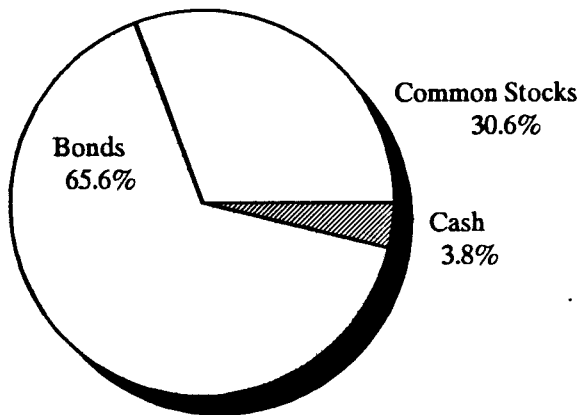
The market value of the Post Fund increased by 0.8% during the fourth quarter of 1992. Assets increased due to positive equity returns.

	Asset Growth During Fourth Quarter 1992 (Millions)
Beginning Value	\$7,442
Net Contributions	-37
Investment Return	95
Ending Value	\$7,500



Asset Mix

The SBI has adopted a new long-term asset allocation strategy for the Post Fund effective beginning in fiscal year 1993. The new policy reflects the new post retirement benefit increase formula recently enacted by the Legislature. Throughout fiscal year 1993, the actual asset mix of the Post Fund will move toward the policy targets shown below.



Actual Asset Mix
12/31/92

	Policy Asset Mix	Actual Mix 12/31/92	Actual Market Value (Millions)
Stocks	50.0%	30.6%	\$2,299
Bonds	47.0	65.6	4,917
Unallocated Cash	3.0	3.8	284
	100.0%	100.0%	\$7,500

Post Fund (Con't.)

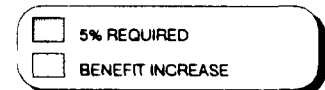
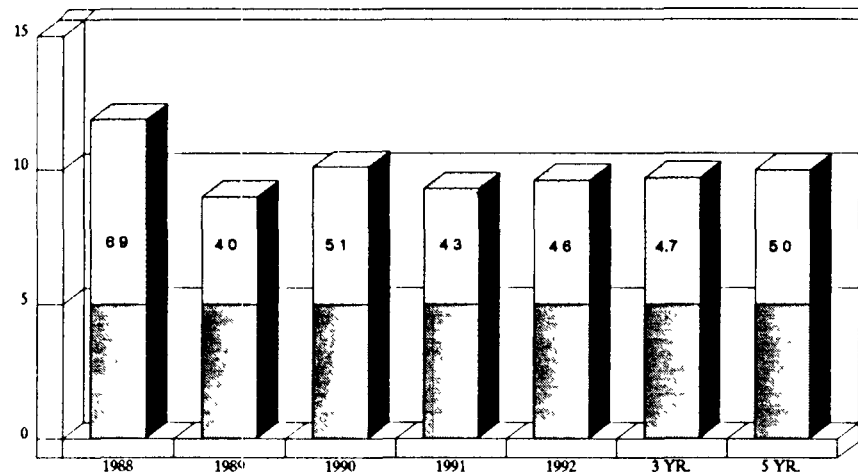
Total Fund Performance for Fiscal Years 1988 – 1992

Through fiscal year 1992 benefit increases were based upon realized earnings during a fiscal year and were effective at the start of the following calendar year.

(Starting in fiscal year 1993 benefit increases will be based on total return.) Benefit increases generated for the last five years are shown below.

**Realized Earnings
Fiscal Years 1988 - 1992**

PERCENT



	1988	1989	1990	1991	1992	(Annualized)	
						3 Yrs.	5 Yrs.
Realized Earnings*	11.9%	9.0%	10.1%	9.3%	9.6%	9.7%	10.0%
Benefit Increase**	6.9	4.0	5.1	4.3	4.6	4.7	5.0
Inflation	3.9	5.2	4.7	4.7	3.1	4.2	4.3

* Interest, dividends and net realized capital gains.

** Payable starting January 1 of the following calendar year.

Total Fund Performance Beginning Fiscal Year 1993

The total fund trailed its composite index for the quarter.

	Qtr.	Since 7/1/92
Total Fund	1.3%	5.8%
Composite Index	1.4	6.1

Stock Segment Performance

The stock segment of the Post Fund trailed its target for the latest quarter.

	Qtr.	Since 7/1/92
Stock Segment	4.8%	5.7%
S&P 500	5.1	8.4

Bond Segment Performance

The bond segment of the Post Fund exceeded its target for the latest quarter.

	Qtr.	Since 7/1/92
Bond Segment	0.4%	5.6%
Shearson Index	0.1	5.0

Assigned Risk Plan

Investment Objective

The Assigned Risk Plan has two investment objectives: to minimize the mismatch between assets and liabilities and to provide sufficient liquidity for the payment of on-going claims and operating expenses.

Asset Mix

The Assigned Risk Plan is invested in a balanced portfolio of common stocks and bonds. The actual asset mix will fluctuate in response to changes in the Plan's liability stream.

	12/31/92 Target	12/31/92 Actual
Stocks	15.0%	14.9%
Bonds	85.0	84.5
Unallocated Cash	0.0	0.6
Total	100.0%	100.0%

Investment Management

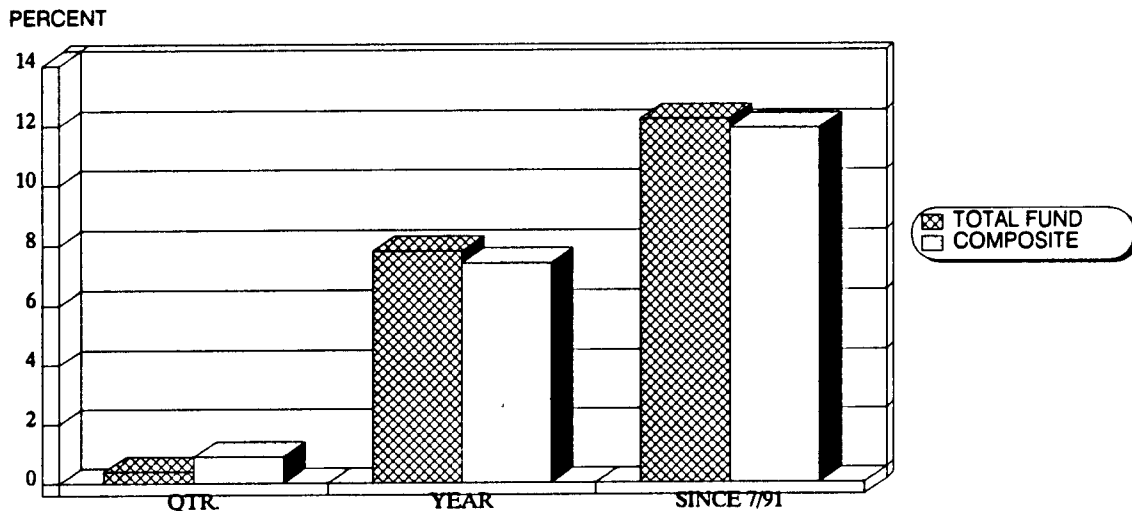
External management is utilized by the Assigned Risk Plan. The entire fund is managed by Voyager Asset Management. The portfolio was transferred from the Department of Commerce to the SBI on May 1, 1991.

Performance Benchmarks

A custom benchmark has been established for the fixed income portfolio. It reflects the duration of the liability stream and the long-term sector allocation of Voyager Asset Management. The equity benchmark is a custom benchmark consisting of A or greater rated S&P500 stocks less utilities and restricted stocks. The total fund benchmark is a combination of the fixed income and equity benchmarks, weighted according to the asset allocation target.

Market Value

On December 31, 1992 the market value of the Assigned Risk Plan was \$377 million.

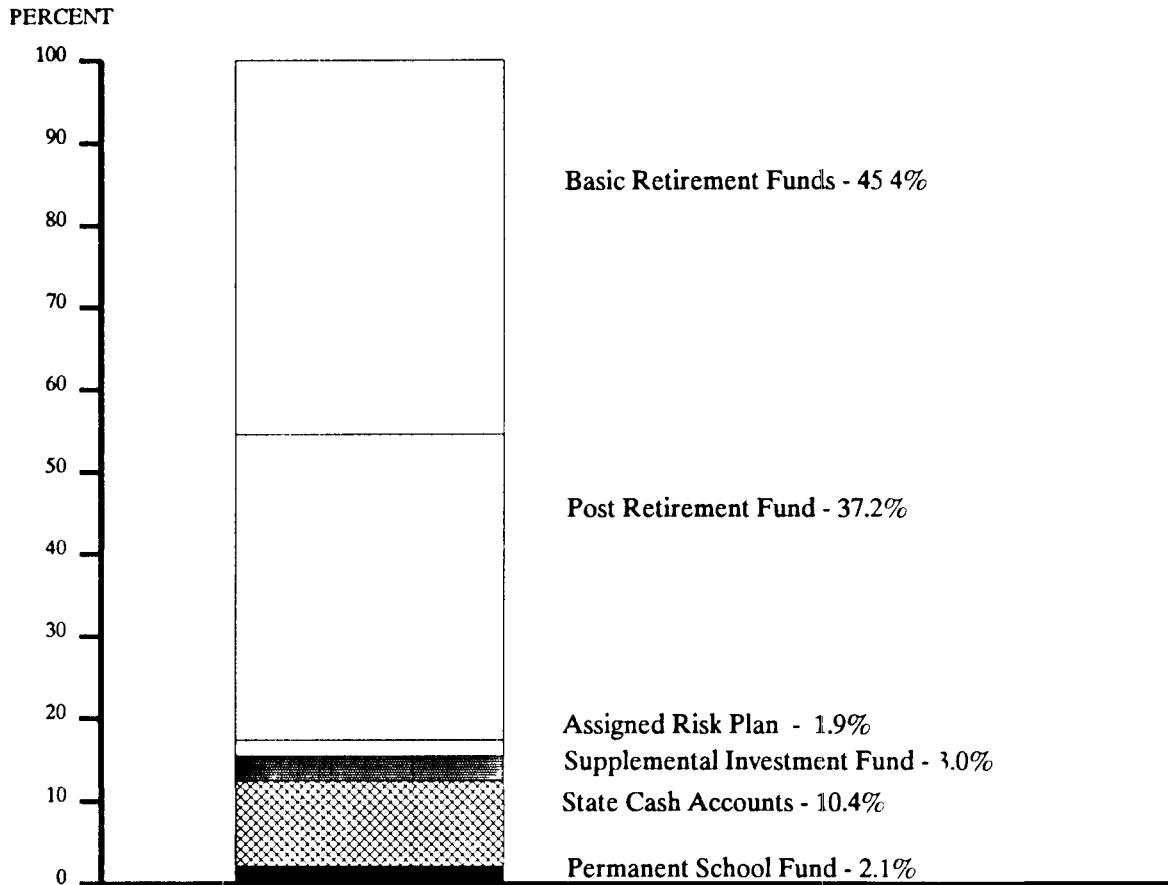


Period Ending 12/31/92

	Qtr.	Yr.	Since 7/1/91
Total Fund	0.4%	7.8%	12.2%
Composite Index	0.9	7.4	11.9
Equity Segment	7.5	12.0	16.6
Benchmark	5.7	7.4	16.5
Bond Segment	-0.8	7.2	11.7
Benchmark	0.0	7.4	11.0

EXECUTIVE SUMMARY

Funds Under Management



	12/31/92 Market Value (Billions)
Basic Retirement Funds	\$9.2
Post Retirement Fund	7.5
Assigned Risk Plan	0.4
Supplemental Investment Fund	0.6
State Cash Accounts	2.1
Permanent School Fund	0.4
Total	\$20.2

MINNESOTA STATE BOARD OF INVESTMENT

QUARTERLY INVESTMENT REPORT

Fourth Quarter 1992

(October 1, 1992 – December 31, 1992)

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VARIOUS CAPITAL MARKET INDICES

	Qtr.	Period Ending 12/31/92			
		Yr.	3 Yr.	5 Yr.	10 Yr.
Domestic Equity					
Wilshire 5000	7.3%	9.0%	11.1%	15.9%	15.4%
Dow Jones Industrials	1.7	7.4	9.8	15.3	16.8
S&P 500	5.1	7.7	10.8	15.8	16.1
Russell 2000	14.9	18.4	11.7	15.1	11.8
Domestic Fixed Income					
Salomon BIG	0.3	7.6	10.8	11.0	11.7
Shearson Gov't. /Corp.	0.0	7.6	10.6	10.7	11.5
90 Day U.S. Treasury Bills	0.8	3.6	5.8	6.6	7.4
International					
EAFE*	-3.9	-12.2	-9.0	1.3	16.7
Salomon Non U.S. Gov't. Bond	-6.3	4.8	12.0	6.8	13.5
Inflation Measure					
Consumer Price Index (CPI)	0.4	2.9	4.0	4.2	3.8

* Morgan Stanley Capital International Index of Europe, Australia and the Far East

FINANCIAL MARKETS REVIEW

DOMESTIC STOCKS

During the quarter, the domestic stock market increased 7.2%. For the quarter, all segments of the market advanced as shown below by the Wilshire style indexes. However, on a relative basis, growth did better than value and small capitalization stocks did better than large capitalization stocks. Also, within certain industries there was a high level of divergence. The consumer durable and financial sectors performed well while the energy sector performed poorly. The quarterly result reflects the market's evaluation of economic news that reported the economy was improving, especially in December when retail sales were much improved relative to the previous years.

The Wilshire 5000 provided a 7.2% return for the quarter. Performance among the different Wilshire Style Indexes for the quarter are shown below:

- Large Value 5.7%
- Small Value 10.7
- Large Growth 7.1
- Small Growth 18.5

The Wilshire 5000 increased 9.0% during the latest year.

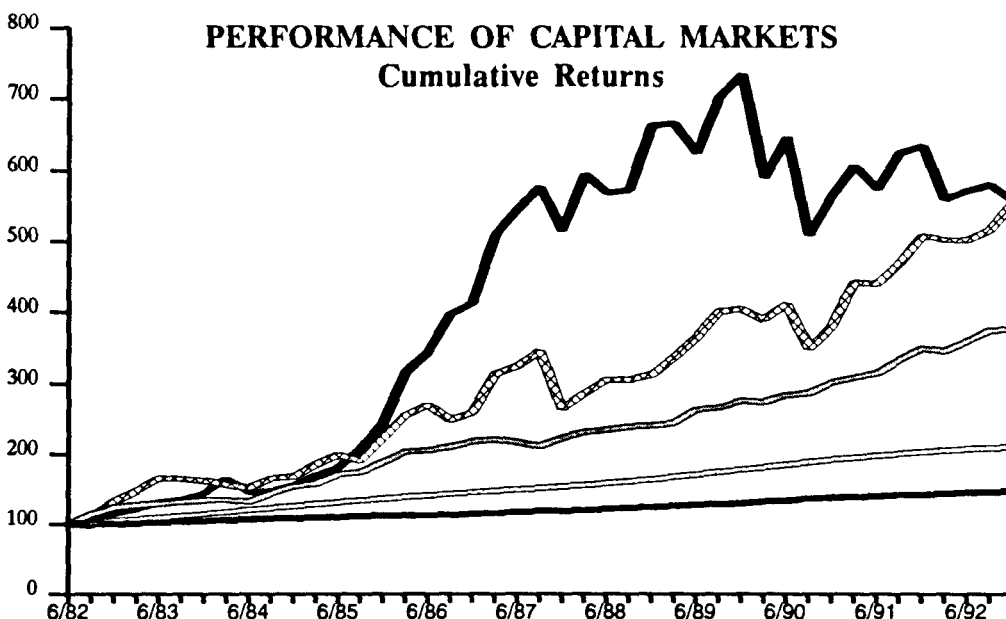
DOMESTIC BONDS

Bonds had low returns because interest rates increased during the quarter. The increase was not uniform across the yield curve with two year yields increasing by 0.77% and thirty year yields rising only 0.02%. Positive economic data was released during the quarter which helped corporates outperform treasuries. As the economy strengthens, credit quality problems tend to decrease, increasing corporate sector returns relative to the Treasury sector. Mortgage securities also outperformed comparable treasuries as rising interest rates decreased mortgage refinancings.

Overall, the Salomon Brothers Broad Investment Grade (BIG) Index increased 0.3% for the quarter. The Salomon BIG sector returns for the quarter were:

- Treasury/Agency 0.0%
- Corporates 0.2
- Mortgages 0.8

The Salomon BIG increased 7.6% for the latest year.



— INT'L. STOCKS — U.S. BONDS — CONSUMER PRICE INDEX
 - - - U.S. STOCKS ····· CASH EQUIVALENTS

Indices used are: Morgan Stanley's Index of Europe, Australia and the Far East (EAFE); Wilshire 5000 Index; Salomon Broad Investment Grade (BIG) Bond Index; 91 Day Treasury Bills; and the Consumer Price Index.

FINANCIAL MARKETS REVIEW**INTERNATIONAL STOCKS**

In aggregate, the international stock markets (as measured by the EAFE index) provided a return of -3.9% for the quarter. As shown below, performance varied widely among the major markets:

● Japan	-3.6%
● United Kingdom	-2.9
● Germany	-9.0
● France	-7.5

The EAFE index decreased by 12.2% during the latest year. The index is compiled by Morgan Stanley Capital International. It is an index of 18 markets located in Europe, Australia and the Far East (EAFE). The major markets listed above comprise about 75% of the value of international markets.

REAL ESTATE

The real estate market still faces capital shortages, oversupply and slow demand. Many real estate portfolios have experienced significant writedowns over the last year, reflecting the weak real estate markets. Longer term, lower interest rates and a significant decline in construction activity are both favorable developments for the real estate market.

VENTURE CAPITAL

According to the Venture Capital Journal, after shrinking by an average of 25% a year for four years, new venture capital raised in 1992 more than doubled over 1991. In 1991, \$1.27 billion was raised by 30 firms. In 1992, \$2.55 billion was raised by 41 firms.

RESOURCE FUNDS

Currently, spot prices of West Texas Intermediate oil are \$19.60 per barrel. This compares to \$18.70 per barrel a year ago.

Spot prices of natural gas are approximately \$1.90 per MCF (thousand cubic feet) compared to \$1.20 per MCF a year ago.

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:

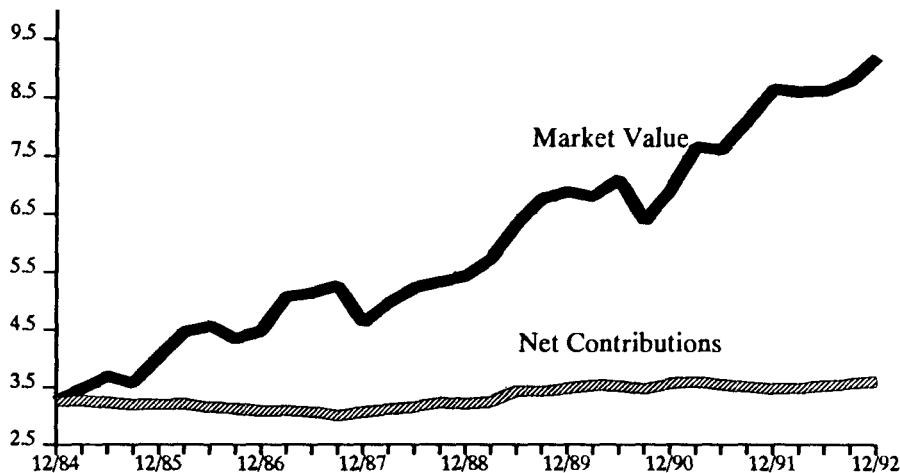
- The total fund should provide real rates of return that are 3-5 percentage points greater than the rate of inflation over moving 10 year periods.
- Stocks, bonds and cash should outperform the median fund from a universe of public and private funds with a balanced asset mix over moving 5 year periods.
- 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 4.7% during the fourth quarter of 1992. Most of

the increase resulted from strong stock returns.

\$ Billions



	In Millions									
	12/87	12/88	12/89	12/90	12/91	3/92	6/92	9/92	12/92	
Beginning Value	\$4,474	\$4,628	\$5,420	\$6,382	\$8,120	\$8,639	\$8,605	\$8,608	\$8,781	
Net Contributions	-26	146	269	97	-32	9	-35	-42	34	
Investment Return	180	646	1,186	440	551	-43	38	215	376	
Ending Value	\$4,628	\$5,420	\$6,875	\$6,919	\$8,639	\$8,605	\$8,608	\$8,781	\$9,191	

BASIC RETIREMENT FUNDS

Asset Mix

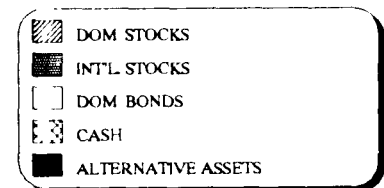
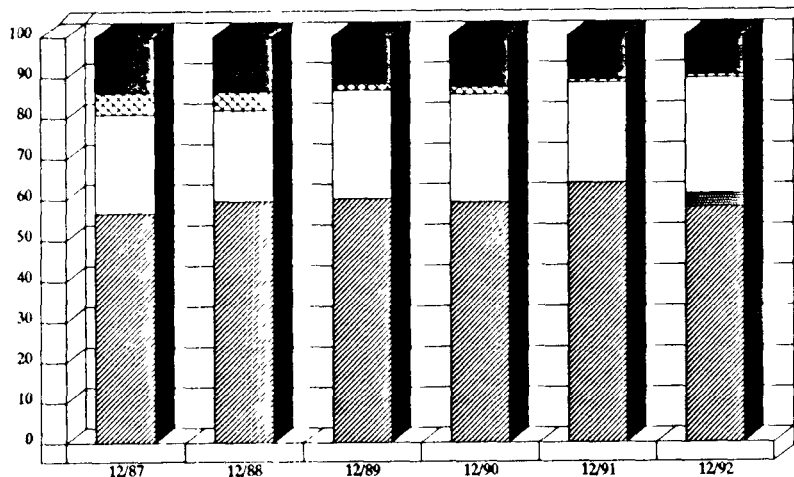
Based on the Basic Funds' investment objectives and the expected long run performance of the capital markets, the Board has adopted the following long-term policy asset allocation for the Basic Funds:

The actual asset mix changed from the prior quarter, resulting from the reallocation from domestic stocks to international stocks and negative returns in alternative assets.

Domestic Stocks	50.0%
Int'l. Stocks	10.0
Domestic Bonds	24.0
Alternative Assets*	15.0
Unallocated Cash	1.0

*Alternative assets include real estate, venture capital and resource funds.

PERCENT



	Last Five Years					Latest Qtrs.				
	12/87	12/88	12/89	12/90	12/91	3/92	6/92	9/92	12/92	
Domestic Stocks	56.7%	59.5%	60.2%	59.1%	63.9%	60.1%	59.7%	59.4%	57.9%	
Int'l. Stocks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	
Domestic Bonds	24.2	22.4	26.4	26.2	24.7	27.8	28.9	29.6	28.5	
Real Estate	9.5	9.0	7.5	7.0	4.8	4.5	4.5	4.4	4.2	
Venture Capital	2.8	3.1	2.8	4.2	4.7	5.4	5.1	4.7	4.2	
Resource Funds	1.4	1.5	1.4	1.5	1.1	1.2	1.2	1.2	1.2	
Unallocated Cash	5.4	4.5	1.7	2.0	0.8	1.0	0.6	0.7	0.8	
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

BASIC RETIREMENT FUNDS

Total Fund Performance vs. Standards

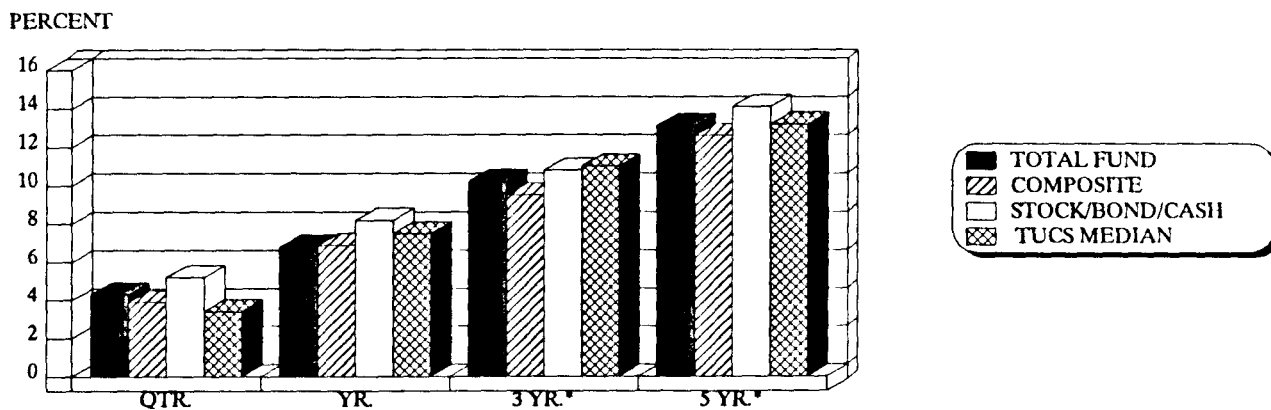
The Basic Funds' long-term rate of return performance is evaluated relative to two specific benchmarks:

the Wilshire Associates Trust Universe Comparison Service (TUCS).

- **Composite Index.** The returns provided by the total portfolio are expected to exceed those derived from a composite of market indices, weighted in a manner that reflects the long-term asset allocation of the Funds. Alternative asset and bond weights are reset each quarter to reflect the amount of unfunded commitments in the alternative asset classes. As of 10/1/92, the composite index is weighted: 60.0% Wilshire 5000 Adjusted, 28.5% Salomon BIG, 4.5% Wilshire Real Estate Fund, 5.0% Venture Capital Funds, 1.0% Resource Funds, and 1.0% 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 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 in which stocks outperform other asset classes and, conversely, to underperform the median fund when stocks underperform other assets.

The Basic Funds total portfolio exceeded its composite index for the latest quarter but trailed it for the year. Excluding alternative assets, the Basic Funds ranked in the top quarter (23rd percentile) of the TUCS universe for the quarter. In addition, it ranked in the middle third (39th percentile) for the latest year and the top third (31st percentile) for the last five years.



	Period Ending 12/31/92 *(Annualized)			
	Qtr.	Yr.	3 Yr.	5 Yr.
Total Fund	4.3%	6.8%	10.2%	13.1%
Composite Index**	3.9	6.9	9.5	12.6
Stocks, Bonds and Cash Only	5.2	8.2	10.8	14.1
TUCS Median Balanced Fund	3.4	7.5	11.0	13.2

** Adjusted to reflect the SBI's restrictions on liquor and tobacco stocks.

BASIC RETIREMENT FUNDS

Segment Performance vs. Standards

Domestic Stocks

Target: Wilshire 5000 Adjusted*

Expectation: If half of the segment is actively managed and half is passively managed, the entire segment is expected to exceed the target by +.20-.45% annualized, over time.

	Qtr.	Yr.	Annualized	
			3 Yrs.	5 Yrs.
Domestic Stocks	8.0%	8.9%	10.7%	15.2%
Wilshire 5000*	7.5	9.4	10.9	15.6

* Adjusted for liquor and tobacco restrictions.

International Stocks

Target: EAFE

Expectation: Currently, the entire segment is passively managed. The index fund is expected to track the target by +/- .20%, over time.

	Qtr.
Int'l. Stocks	-3.6
EAFE	-3.9

Domestic Bonds

Target: Salomon Broad Investment Grade (BIG) Index

Expectation: If half of the segment is actively managed and half is managed semi-passively, the entire segment is expected to exceed the target by +.20-.35% annualized, over time.

	Qtr.	Yr.	Annualized	
			3 Yrs.	5 Yrs.
Bond Segment	0.5%	7.7%	11.1%	11.0%
Salomon BIG	0.3	7.6	10.8	11.0

Alternative Assets

Expectation: Real assets (primarily real estate and resource funds) are expected to exceed the rate of inflation by 3-5% annualized, over the life of the investment.

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.

Expectation: Private equity investments (primarily venture capital) are expected to provide annualized returns at least 3% greater than historical public equity returns, over the life of the investment. This equates to an absolute return of approximately 13-14% annualized.

The SBI began its venture capital and resource programs in the mid-1980's. Some of the investments, therefore, are relatively immature and returns may not be indicative of future results.

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.

	Qtr.	Yr.	Annualized	
			3 Yrs.	5 Yrs.
Real Estate Segment	-3.0%	-10.5%	-5.2%	-0.3%
Real Estate Index	-3.0	-7.7	-6.6	-1.7
Inflation	0.4	2.9	4.0	4.2
Venture Capital	-6.0	-3.8	17.8	16.4
Resource Fund	2.3	13.3	7.7	6.9

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.

Through fiscal year 1992, unrealized capital gains (or losses) were excluded from the statutory definition of earnings. For this reason the Post Fund previously was not designed to maximize long-term total rates of return.

Through fiscal year 1992, the Post Fund was not oriented toward maximizing long-term total rate of return. Rather,

the SBI attempted to generate a high, consistent stream of earnings for the Post Fund that maintained current benefits, as well as produce benefit increases over time. Through fiscal year 1992, the Board established two earnings objectives for the Post Fund:

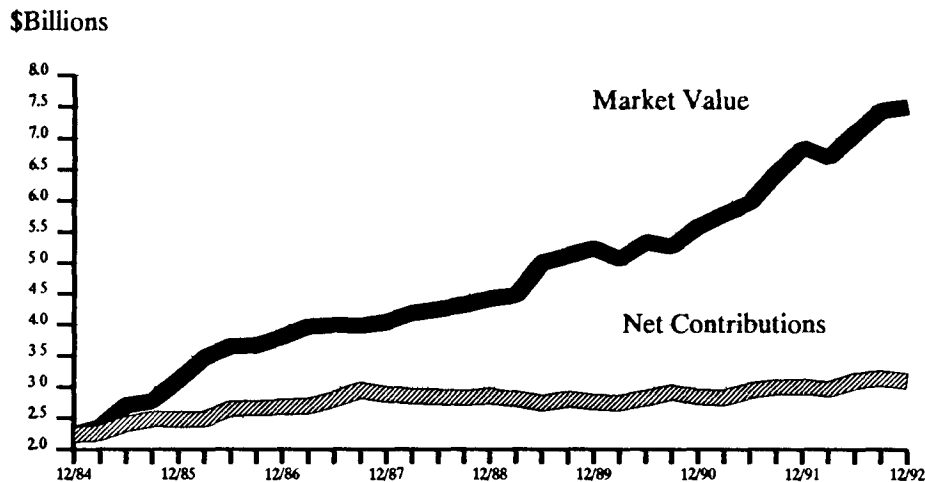
- generate 5% realized earnings to maintain current benefits.
- generate at least 3% additional realized earnings to provide benefit increases.

Beginning in fiscal year 1993, the post retirement benefit increase formula will be based on total return rather than realized earnings. As a result, the Board has adopted a new long-term asset allocation strategy for the Post Fund which incorporates a 50% commitment to common stocks. New investment objectives and performance standards will be developed to reflect the new asset allocation during the year as well.

Asset Growth

The market value of the Post Retirement Fund increased by 0.8% during the fourth quarter of 1992. The majority of

the increase was due to positive stock returns.



	In Millions									
	12/87	12/88	12/89	12/90	12/91	3/92	6/92	9/92	12/92	
Beginning Value	\$3,808	\$4,047	\$4,434	\$5,278	\$6,448	\$6,855	\$6,701	\$7,087	\$7,442	
Net Contributions	207	-27	25	-72	9	-40	134	38	-37	
Investment Return	32	414	779	384	398	-114	252	317	95	
Ending Value	\$4,047	\$4,434	\$5,238	\$5,590	\$6,855	\$6,701	\$7,087	\$7,442	\$7,500	

POST RETIREMENT FUND

Asset Mix

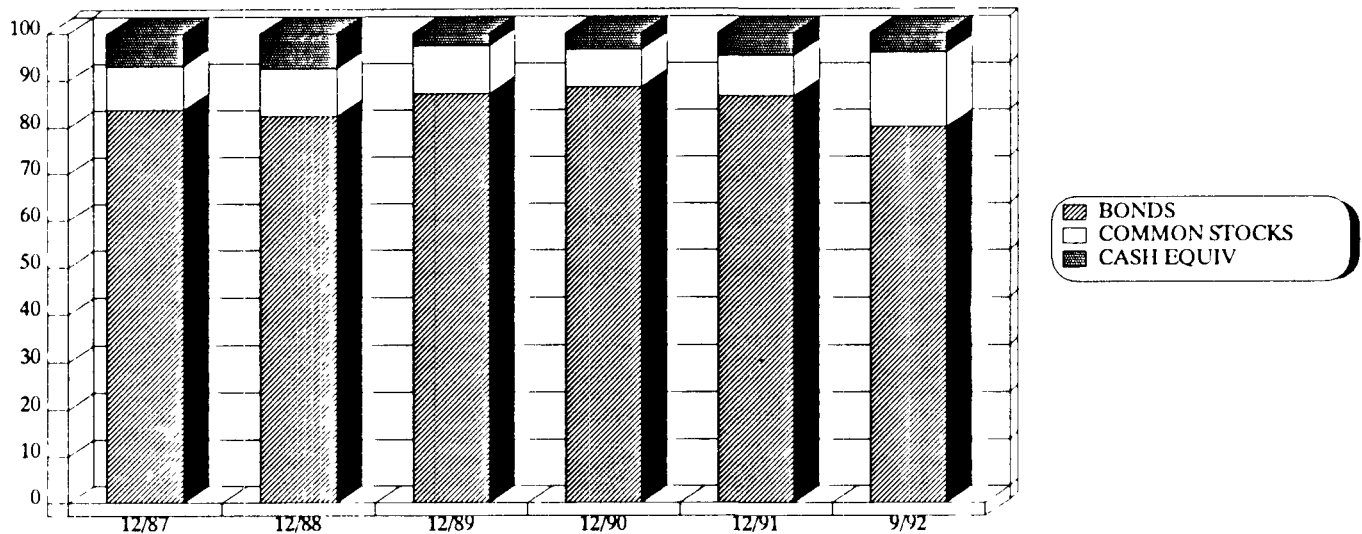
The Board adopted a new asset allocation strategy for the Post Fund effective for fiscal year 1993. The new policy targets reflect the new post retirement benefit increase formula recently enacted by the Legislature. Throughout fiscal year 1993, the actual asset mix of the Post Fund will move toward the following long-term policy targets:

Stocks	50.0%
Bonds	47.0
Unallocated Cash	<u>3.0</u>
Total	100.0%

The large allocation to common stocks will allow the Fund to increase the long-term earning power of its assets and allow the Fund to focus on generating higher long-term total rates of return.

During the most recent quarter, the stock segment grew and the cash segment was reduced. These changes were part of the transition to the new asset allocation policy.

PERCENT



	Last Five Years					Latest Qtrs.			
	12/87	12/88	12/89	12/90	12/91	3/92	6/92	9/92	12/92
Bonds	83.7%	82.3%	87.1%	88.5%	86.5%	84.0%	80.5%	80.0%	65.6%
Stocks	9.3	10.1	10.2	7.9	8.5	9.0	8.6	15.7	30.6
Unallocated Cash	7.0	7.6	2.7	3.6	5.0	7.0	10.9	4.3	3.8
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

POST RETIREMENT FUND

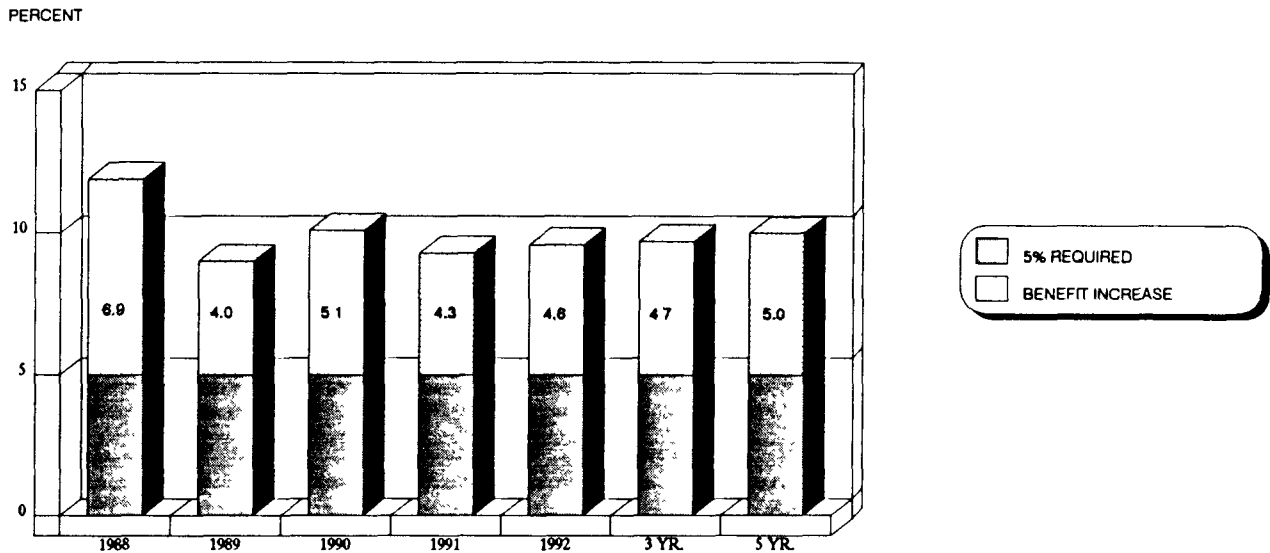
Fund Performance Through 6/30/92

Through fiscal year 1992, the ability of the Post Fund to maintain current benefit levels and provide future benefit increases depended upon its earnings. Previously, state statutes had defined 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) had no direct impact on the benefits paid out to retirees. Unrealized capital gains (or losses) were excluded from defined earnings in order to make benefit payments largely insensitive to near-term fluctuations in the capital markets.

Through fiscal year 1992 benefit increases were based upon earnings during a fiscal year and were effective at the start of the following calendar year. Benefit increases generated over the last five years are shown below.

Realized Earnings

Fiscal Years 1988 - 1992



	1988	1989	1990	1991	1992	(Annualized)	
						3 Yrs.	5 Yrs.
Realized Earnings*	11.9%	9.0%	10.1%	9.3%	9.6%	9.7%	10.0%
Benefit Increase**	6.9	4.0	5.1	4.3	4.6	4.7	5.0
Inflation	3.9	5.2	4.7	4.7	3.1	4.2	4.3

* Interest, dividends and net realized capital gains.

** Payable starting January 1 of the following calendar year.

POST RETIREMENT FUND

Fund Performance Since 7/1/92

Beginning fiscal year 1993, total rate of return is the relevant measure for performance. Actual returns for the total fund

and stock and bond segments are shown below along with appropriate market index comparisons.

Total Fund Performance

The total fund slightly trailed its composite index for the quarter. On 12/31/92 the composite was weighted:

Stocks	31%
Bonds	69

Period Ending 12/31/92

	Qtr	Since 7/1/92
Total Fund	1.3%	5.8%
Composite Index	1.4	6.1

The composite weighting changes each month to reflect the on-going transition from bonds to stocks. The weighting shown above reflects the actual asset mix of the total portfolio during December.

Stock Segment Performance

Stock segment performance relative to the S&P 500 is shown in the table. During the transition to the new asset allocation, this index will be the most representative market comparison for the stock portfolio.

Period Ending 12/31/92

	Qtr	Since 7/1/92
Stock Segment	4.8%	5.7%
S&P 500	5.1	8.4

Bond Segment Performance

Bond segment performance relative to the Shearson Lehman Government Corporate Bond Index is shown in the table. During the transition, that index will be the most appropriate market comparison for the bond portfolio.

Period Ending 12/31/92

	Qtr	Since 7/1/92
Bond Segment	0.4%	5.6%
Shearson Index	0.1	6.0

ASSIGNED RISK PLAN

Investment Objective

The Assigned Risk Plan has two investment objectives: to minimize the mismatch between assets and liabilities and to provide sufficient liquidity for the payment of on-going claims and operating expenses.

Investment Management

External management is utilized by the Assigned Risk Plan. The entire fund is managed by Voyager Asset Management. The portfolio was transferred from the Departement of Commerce to the SBI on May 1, 1991.

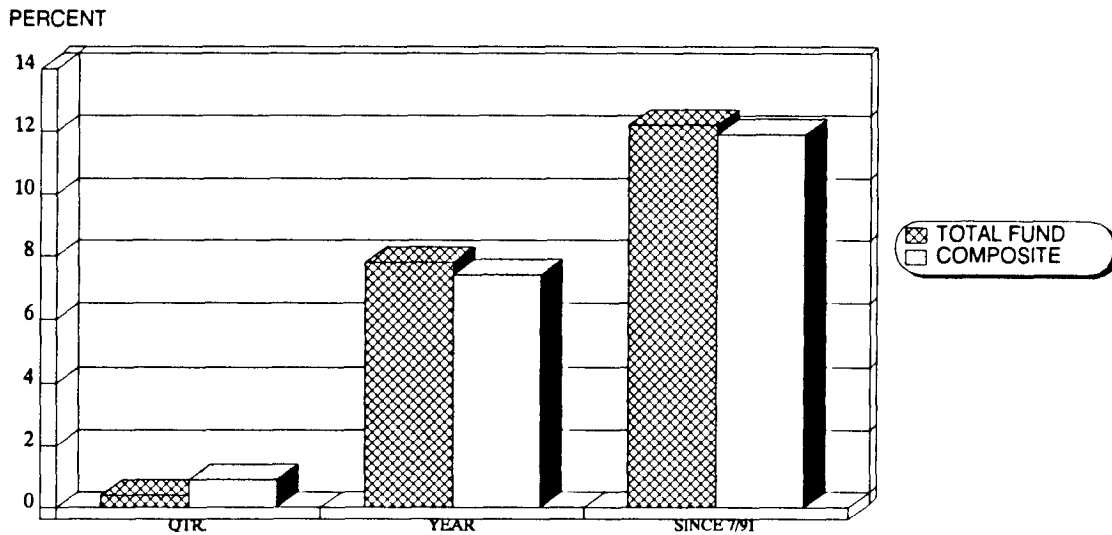
Asset Mix

The Assigned Risk Plan is invested in a balanced portfolio of common stocks and bonds. The actual asset mix will fluctuate in response to changes in the Plan's liability stream.

Market Value

On December 31, 1992 the market value of the Assigned Risk Plan was \$377 million.

	12/31/92 Target	12/31/92 Actual
Stocks	15.0%	14.9%
Bonds	85.0	84.5
Unallocated Cash	0.0	0.6
Total	100.0%	100.0%



Period Ending 12/31/92

	Qtr.	Yr.	Since 7/1/91
Total Account	0.4%	7.8%	12.2%
Composite	0.9	7.4	11.9
Equity Segment	7.5	12.0	16.6
Wilshire 5000	5.7	7.4	16.5
Bond Segment	-0.8	7.2	11.7
Benchmark	0.0	7.4	11.0

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 an investment manager for most 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 December 31, 1992 the market value of the entire fund was \$614 million.

Investment Options

Income Share Account - a 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.

Fixed Interest 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.

	Target	Actual
Stocks	60.0%	62.1%
Bonds	35.0	32.4
Unallocated Cash	5.0	5.5
	<u>100.0%</u>	<u>100.0%</u>

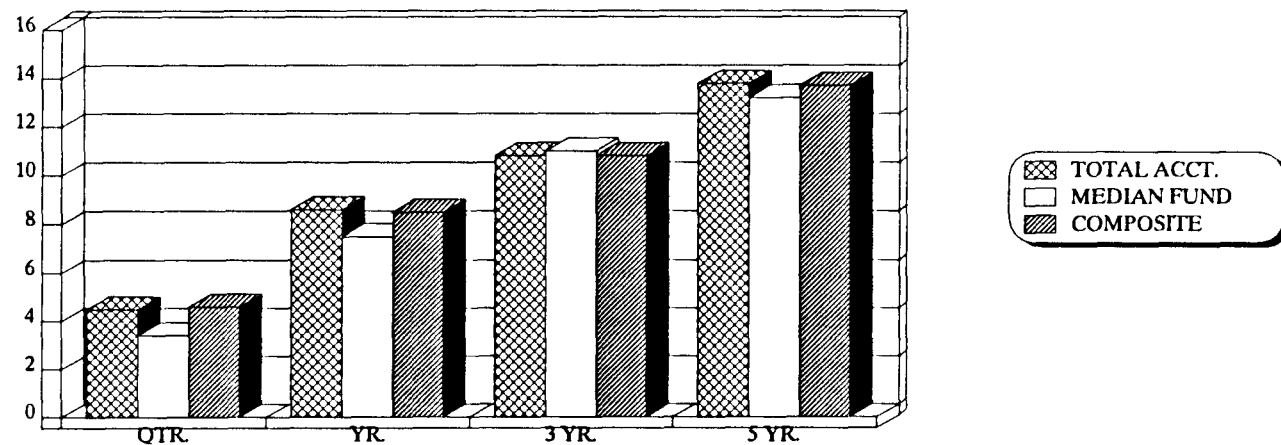
Investment Management

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 December 31, 1992 the market value of the Income Share Account was \$336 million.

PERCENT



Period Ending 12/31/92

	Annualized			
	Qtr.	Yr.	3 Yr.	5 Yr.
Total Account	4.5%	8.6%	10.8%	13.8
Median Fund*	3.4	7.5	11.0	13.2
Composite**	4.6	8.5	10.8	13.7
Equity Segment	7.4	9.3	11.0	15.9
Wilshire 5000**	7.5	9.4	10.9	15.6
Bond Segment	0.0	8.1	10.8	10.9
Salomon Bond Index	0.3	7.6	10.8	11.0

* TUCS Median Balanced Portfolio

** 60% Wilshire 5000/35% Salomon Broad Bond Index/5% T-Bills Composite. Wilshire 5000 is adjusted to reflect liquor and tobacco restrictions.

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.

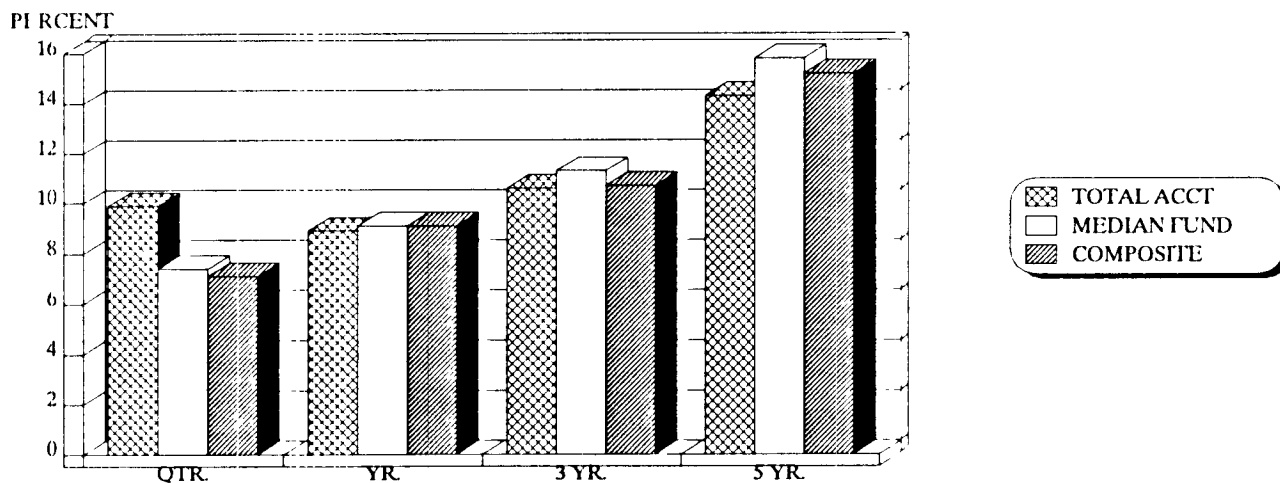
Investment Management

Currently, the entire Account is managed by the same group of active external stock managers utilized by the Basic Retirement Funds. Prior to April 1988, other active managers controlled a substantial portion of the account.

Market Value

On December 31, 1992 the market value of the Growth Share Account was \$92 million.

	Target	Actual
Stocks	95.0%	93.8%
Unallocated Cash	5.0	6.2
	100.0%	100.0%



Period Ending 12/31/92

	Qtr.	Yr.	Annualized 3 Yr.	Annualized 5 Yr.
Total Account	9.9%	8.9%	10.6%	14.3%
Median Fund*	7.4	9.1	11.3	15.8
Composite**	7.1	9.1	10.7	15.2
Equity Segment	10.5	9.1	11.2	14.6
Wilshire 5000**	7.5	9.4	10.9	15.6

* TUCS Median Managed Equity Portfolio

** 95% Wilshire 5000/5% T-Bills Composite. Wilshire 5000 is adjusted for liquor and tobacco restrictions.

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.

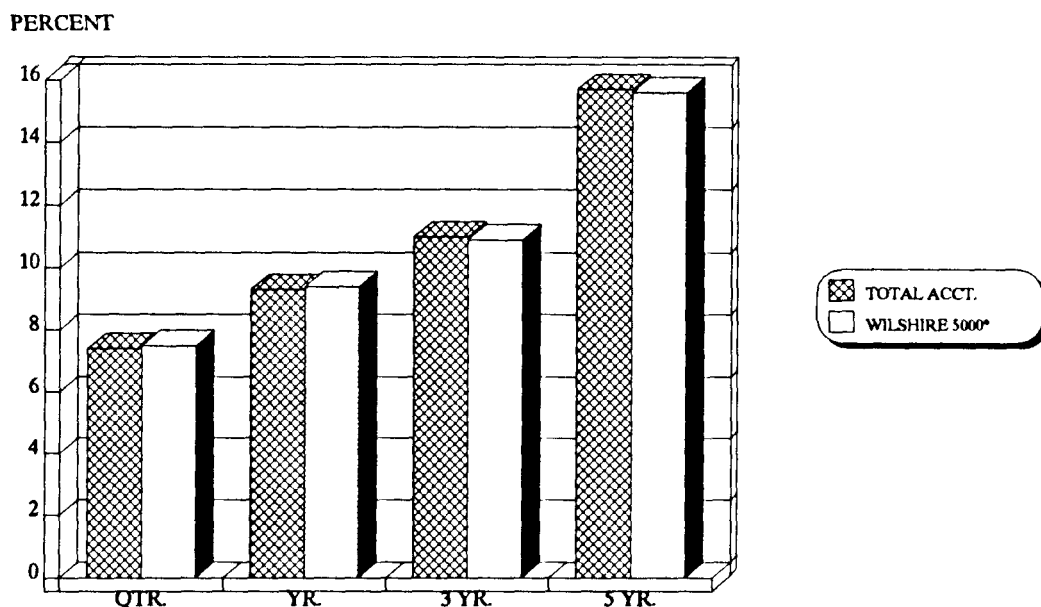
The Account is invested 100% in common stocks.

Investment Management

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

Market Value

On December 31, 1992 the market value of the Common Stock Index Account was \$31 million.



Period Ending 12/31/92

	Qtr.	Yr.	Annualized 3 Yr.	Annualized 5 Yr.
Total Account	7.4%	9.3%	11.0%	15.7%
Wilshire 5000*	7.5	9.4	10.9	15.6

* Adjusted for liquor and tobacco restrictions.

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.

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.

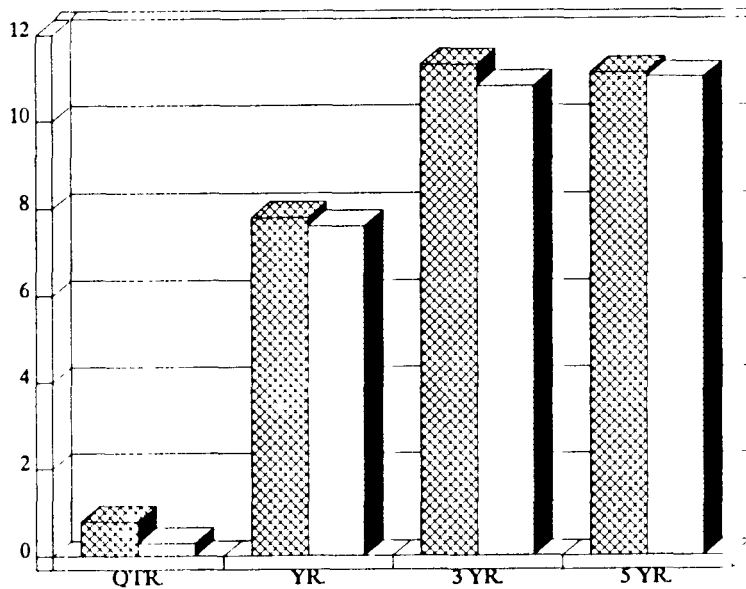
Investment Management

The entire Account is managed by the same group of active external bond managers utilized by the Basic Retirement Funds.

Market Value

On December 31, 1992 the market value of the Bond Market Account was \$17 million.

PERCENT



Period Ending 12/31/92

	Qtr.	Yr.	Annualized	
			3 Yr.	5 Yr.
Total Account	0.8%	7.8%	11.3%	11.1%
Salomon Broad	0.3	7.6	10.8	11.0

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.

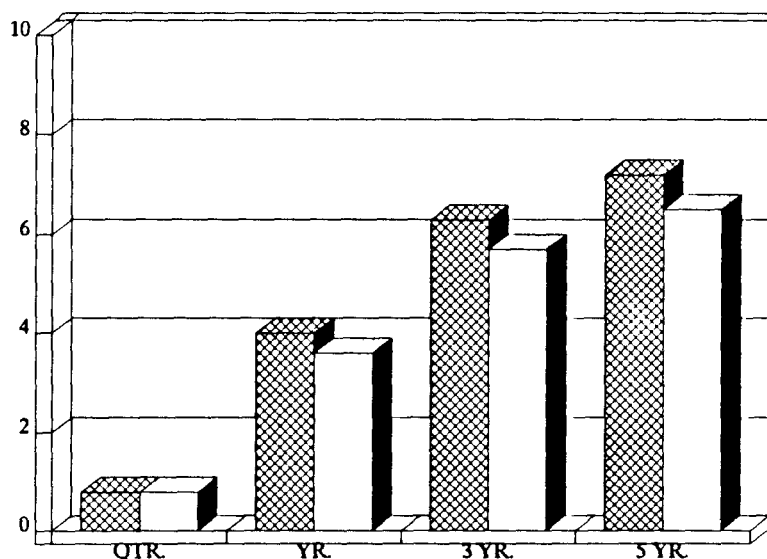
Investment Management

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 December 31, 1992 the market value of the Money Market Account was \$68 million.

PERCENT



	Period Ending 12/31/92			
	Qtr.	Yr.	Annualized 3 Yr.	Annualized 5 Yr.
Total Account	0.8%	4.0%	6.3%	7.2%
91 Day T-Bills	0.8	3.6	5.7	6.5

SUPPLEMENTAL INVESTMENT FUND

Fixed Interest Account

Investment Objectives

The investment objectives of the Fixed Interest 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 Fixed Interest 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 Fixed Interest Account over the following twelve months.

Market Value

On December 31, 1992 the market value of the Fixed Interest Account was \$71 million.

Contract Period	Annual Effective Interest Rate	Manager
Nov. 1, 1990 - Oct. 31, 1993	8.765%	Mutual of America/ Provident National (blended rate)
Nov. 1, 1991 - Oct. 31, 1994	6.634%	Continental Assurance/ Provident National (blended rate)
Nov. 1, 1992 - Oct. 31, 1995	5.280%	Norwest Bank Minnesota

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 have been influenced by the 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 have limited 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, has invested 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 remained essentially unchanged for the quarter. The Permanent School fund continues to hold only fixed income securities.

	Target	Actual
Bonds	95.0%	93.2%
Unallocated Cash	5.0	6.8
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 decreased 3.8% during the fourth quarter. Net withdrawals contributed to the decrease.

	Asset Growth During Fourth Quarter 1992 (Millions)
Beginning Value	\$445.0
Net Contributions	-20.1
Investment Return	3.3
Ending Value	\$428.2

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 8.00%, an average life of 7.06 years, and a AAA quality rating. The portfolio remains concentrated in Treasury and Agency issues with the remainder primarily distributed among mortgages, industrials and utilities.

**Bond Portfolio Statistics
12/31/92**

Value at Market	\$392,239,166
Value at Cost	349,910,479
Average Coupon	8.86%
Current Yield	8.00
Yield to Maturity	7.34
Current Yield at Cost	9.03
Time to Maturity	14.73 Years
Average Duration	7.06 Years
Average Quality Rating	AAA
Number of Issues	120

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.

Period Ending 12/31/92

	Market Value (Millions)	Qtr.	Yr.	3 Yrs. Annualized
Treasurer's Cash Pool	\$1,688	1.3%	5.5%	7.4%
Trust Fund Cash Pool	55	1.3	5.1	6.8
91-Day T-Bills		0.8	3.6	5.7

Tab B

PORTFOLIO STATISTICS

	PAGE
I. Composition of State investment portfolios 12/31/92	1
II. Cash Flow Available for Investment 10/1/92 - 12/31/92	3
III. Monthly Transactions and Asset Summary - Retirement Funds	4

STATE BOARD OF INVESTMENT
Composition of State Investment Portfolios By Type of Investment
Market Value December 31, 1992
(in Millions)

	Cash And Short Term Securities	Bonds		Stocks		External Int'l.	Alternative Assets	Total
		Internal	External	Internal	External			
BASIC RETIREMENT FUNDS:								
Teachers Retirement Fund	\$25,150 0.61%	\$0	\$1,178,942 28.46%	\$0	\$2,400,554 57.96%	\$133,700 3.23%	\$403,372 9.74%	\$4,141,718 100%
Public Employees Retirement Fund	\$12,934 0.63%	\$0	\$587,485 28.48%	\$0	\$1,196,219 58.00%	\$66,652 3.23%	\$199,160 9.66%	\$2,062,450 100%
State Employees Retirement Fund	\$23,341 1.30%	\$0	\$510,602 28.34%	\$0	\$1,039,618 57.71%	\$57,995 3.22%	\$169,898 9.43%	\$1,801,454 100%
Public Employees Police & Fire Fund	\$6,472 0.77%	\$0	\$239,624 28.44%	\$0	\$487,981 57.93%	\$27,116 3.22%	\$81,222 9.64%	\$842,415 100%
Highway Patrol Retirement Fund	\$1,361 1.02%	\$0	\$37,983 28.41%	\$0	\$77,334 57.85%	\$4,315 3.23%	\$12,695 9.49%	\$133,688 100%
Judges Retirement Fund	\$60 0.69%	\$0	\$2,476 28.51%	\$0	\$5,046 58.11%	\$277 3.19%	\$825 9.50%	\$8,684 100%
Public Employees P.F. Consolidated	\$1,646 1.53%	\$0	\$31,601 29.46%	\$2,120 1.98%	\$58,838 54.86%	\$3,258 3.04%	\$9,790 9.13%	\$107,253 100%
Correctional Employees Retirement	\$1,129 1.21%	\$0	\$26,489 28.36%	\$0	\$53,939 57.76%	\$3,005 3.22%	\$8,826 9.45%	\$93,388 100%
POST RETIREMENT FUND	\$283,787 3.78%	\$4,917,417 65.57%	\$0	\$0	\$2,298,865 30.65%	\$0	\$0	\$7,500,069 100%

	Cash And Short Term Securities		Bonds		Stocks		External Int'l	Alternative Assets	Total
	Internal	External	Internal	External	Internal	External			
MINNESOTA SUPPLEMENTAL FUNDS:									
Income Share Account	\$18,465 5.50%	\$0	\$109,021 32.45%	\$0	\$0	\$208,515 62.05%	\$0	\$0	\$336,001 100%
Growth Share Account	\$5,724 6.20%	\$0	\$0	\$0	\$0	\$86,609 93.80%	\$0	\$0	\$92,333 100%
Money Market Account	\$67,929 100%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$67,929 100%
Common Stock Index Account	\$0	\$0	\$0	\$0	\$0	\$30,554 100%	\$0	\$0	\$30,554 100%
Bond Market Account	\$0	\$0	\$0	\$16,666 100%	\$0	\$0	\$0	\$0	\$16,666 100%
Fixed Interest Account	\$0	\$0	\$0	\$70,505 100%	\$0	\$0	\$0	\$0	\$70,505 100%
TOTAL RETIREMENT FUNDS	\$447,998 2.59%	\$5,026,438 29.05%	\$2,702,373 15.62%	\$2,702,373 100%	\$2,120 0.01%	\$7,944,072 45.90%	\$296,318 1.71%	\$885,788 5.12%	\$17,305,107 100%
ASSIGNED RISK PLAN	\$1,950 0.52%	\$0	\$318,428 84.54%	\$0	\$56,285 14.94%	\$0	\$0	\$0	\$376,663 100%
PERMANENT SCHOOL FUND	\$29,225 6.82%	\$0	\$399,037 93.18%	\$0	\$0	\$0	\$0	\$0	\$428,262 100%
TREASURERS CASH	\$1,688,123 100%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,688,123 100%
HOUSING FINANCE AGENCY	\$137,108 73.66%	\$0	\$49,025 26.34%	\$0	\$0	\$0	\$0	\$0	\$186,133 100%
MINNESOTA DEBT SERVICE FUND	\$11,726 42.75%	\$0	\$15,705 57.25%	\$0	\$0	\$0	\$0	\$0	\$27,431 100%
MISCELLANEOUS ACCOUNTS	\$58,552 27.70%	\$0	\$152,814 72.30%	\$0	\$0	\$0	\$0	\$0	\$211,366 100%
GRAND TOTAL	\$2,374,682 11.74%	\$5,961,447 29.48%	\$2,702,373 13.36%	\$2,702,373 100%	\$58,405 0.29%	\$7,944,072 39.28%	\$296,318 1.47%	\$885,788 4.38%	\$20,223,085 100%

**STATE OF MINNESOTA
STATE BOARD OF INVESTMENT**

**Net Cash Flow Available For Investment
October 1, 1992 - December 31, 1992**

Teachers Retirement Fund	\$36,500,000.00
Public Employees Retirement Fund	(1,000,000.00)
State Employees Retirement Fund	(10,638,000.00)
Public Employees Police & Fire	4,000,000.00
Highway Patrol Retirement Fund	(769,000.00)
Judges Retirement Fund	(571,000.00)
Public Employees P&F Consolidated	7,354,295.13
Correctional Employees Retirement Fund	(461,000.00)
Post Retirement Fund	(36,509,337.82)
Supplemental Retirement Fund - Income	5,520,775.63
Supplemental Retirement Fund - Growth	954,315.41
Supplemental Retirement Fund - Money Market	(9,179,419.09)
Supplemental Retirement Fund - Index	1,822,928.84
Supplemental Retirement Fund - Bond Market	2,466,487.07
Supplemental Retirement Fund - Fixed Interest	(353,437.68)
Total Retirement Funds Net Cash Flow	(\$862,392.51)
Assigned Risk Plan	\$10,614,335.03
Permanent School Fund	(\$20,088,970.06)
Total Net Cash Flow	(\$10,337,027.54)

**STATE OF MINNESOTA
STATE BOARD OF INVESTMENT**

**Transaction and Asset Summary
Retirement Funds**

	Net Transactions			Asset Summary (at Market Value)				Total Mkt. Value (Millions)
	Bonds (Millions)	Stocks (Millions)	Total (Millions)	Cash Flow (Millions)	Short-Term % of Fund	Bonds % of Fund	Equity % of Fund	
January 1989	\$88	-\$10	\$78	\$3	5.6%	47.7%	46.7%	\$10,760
February	60	18	78	38	5.3	47.9	46.8	10,760
March	150	5	155	12	3.9	48.8	47.3	10,760
April	-16	188	172	16	2.3	48.1	49.6	10,760
May	-2	4	2	43	2.6	47.6	49.8	10,760
June	119	10	129	119	2.5	49.2	48.3	10,760
July	121	-100	21	44	2.6	49.0	48.4	12,287
August	275	-205	70	51	2.4	49.8	47.8	12,311
September	47	11	58	32	2.2	50.2	47.6	12,344
October	113	-154	-41	8	2.6	52.5	44.9	12,342
November	45	0	45	78	2.8	52.1	45.1	12,494
December	14	6	20	24	2.8	51.8	45.4	12,581
January 1990	-37	6	-31	85	3.9	52.0	44.1	12,126
February	-12	115	103	48	3.4	51.1	45.5	12,232
March	-3	7	4	8	3.4	50.5	46.1	12,334
April	105	3	108	8	2.7	51.4	45.9	12,070
May	-6	27	21	52	2.8	50.0	47.2	12,721
June	23	-22	1	122	3.7	50.3	46.0	12,916
July	130	3	133	65	3.1	51.6	45.3	12,962
August	98	-38	60	53	3.2	53.3	43.5	12,293
September	61	-42	19	13	3.2	55.1	41.7	12,098
October	35	8	43	11	3.0	56.0	41.0	12,103
November	-58	61	3	106	3.7	54.2	42.1	12,652
December	-59	115	56	33	3.4	53.3	43.3	12,967
January 1991	6	-2	4	47	3.6	52.3	44.1	13,356
February	-6	11	5	60	3.9	50.6	45.5	13,790
March	82	1	83	6	3.3	50.8	45.9	13,961
April	-24	-9	-33	9	3.6	50.9	45.5	14,045
May	33	1	34	66	3.8	49.8	46.4	14,308
June	25	2	27	115	4.4	50.5	45.1	14,106
July	124	0	124	48	3.8	50.4	45.8	14,527
August	85	21	106	55	3.3	50.8	45.9	14,891
September	22	1	23	5	3.1	51.4	45.5	15,105
October	21	1	22	14	3.1	51.2	45.7	15,285
November	81	-48	33	64	3.3	52.3	44.3	15,083
December	-4	9	5	25	3.2	51.2	45.6	16,065
January 1992	-42	-3	-45	11	3.6	50.3	46.1	15,878
February	-19	0	-19	57	4.1	49.4	46.5	16,086
March	292	-300	-8	2	4.2	51.6	44.2	15,870
April	-6	2	-4	4	4.2	51.5	44.3	15,905
May	-13	5	-8	72	4.7	51.3	44.0	16,127
June	-22	0	-22	150	5.7	51.5	42.8	16,264
July	389	152	541	123	3.0	53.3	43.7	16,726
August	-149	151	2	-11	3.0	53.1	43.9	16,627
September	-200	200	0	-10	2.9	52.0	45.1	16,809
October	-282	282	0	10	2.9	49.8	47.3	16,771
November	-248	270	22	-9	2.7	47.5	49.8	17,057
December	-500	518	18	4	2.6	44.7	52.7	17,305

Tab C

EXECUTIVE DIRECTOR'S ADMINISTRATIVE REPORT

DATE: March 2, 1993

TO: Members, State Board of Investment

FROM: Howard J. Bicker

1) Budget and Travel Reports

A report on the SBI's FY93 administrative budget for the period ending January 31, 1993 is **Attachment A**.

A travel report for the period from November 16, 1992 - February 15, 1993 is included as **Attachment B**.

2) Legislative Update

As you know, the 1993 Legislative Session is currently underway. Bills of interest to the SBI are included in **Attachment C**. Weekly updates of this summary will be distributed to SBI deputies/designees throughout the session.

The SBI's administrative bill has been introduced in both the House and Senate and I expect hearings to be scheduled soon. The House version is H.F. 378 (Reding, Kahn, Knickerbocker, B. Johnson, Greiling) and the Senate version is S.F. 376 (Metzen, Morse, Terwilliger, Riveness). A brief summary of the bill is **Attachment D**.

The SBI's administrative budget request for FY94-95 was presented to the legislature as part of the Governor's budget recommendations. The SBI's budget for FY93 is \$1,968,000. With adjustments for rent increases, this current budget level translates to \$1,963,000 in FY94 and \$1,981,000 in FY95. The Governor's recommendation for FY94-95 reduced the base amounts by \$48,000 each year. A summary explanation of the budget recommendation is in **Attachment E**.

3) SBI/IAC meeting Dates for Calendar 1993

The quarterly meetings of the SBI/IAC during the remainder of calendar 1993 have been scheduled for:

SBI
Wednesday, June 2, 1993
Wednesday, September 8, 1993
Wednesday, December 8, 1993

IAC
Tuesday, June 1, 1993
Tuesday, September 7, 1993
Tuesday, December 7, 1993

The above dates have been cleared with Auditor Dayton, Treasurer McGrath, Secretary of State Growe, and Attorney General Humphrey. The Governor's office was unable to confirm Governor Carlson's availability.

Generally, the Executive Council, SBI and Land Exchange Board meet consecutively on the meeting date beginning at 8:30 A.M. in the State Capitol

The IAC will meet from 2:00-4:00 P.M. on the meeting date in the SBI Conference Room at 55 Sherburne Avenue St. Paul.

ATTACHMENT A

**STATE BOARD OF INVESTMENT
FISCAL YEAR 1993 ADMINISTRATIVE BUDGET REPORT
GENERAL FUND APPROPRIATION
FISCAL YEAR TO DATE THROUGH JANUARY 31, 1993**

ITEM	FISCAL YEAR 1993 BUDGET	FISCAL YEAR 1993 EXPENDITURES
PERSONAL SERVICES		
CLASSIFIED EMPLOYEES	\$ 286,000	\$ 165,751
UNCLASSIFIED EMPLOYEES	1,206,000	595,592
SEVERENCE PAYOFF	3,000	0
WORKERS COMPENSATION INSURANCE	0	0
MISCELLANEOUS PAYROLL	0	4,261
SUBTOTAL	\$ 1,495,000	\$ 765,604
EXPENSES & CONTRACTUAL SERVICES		
RENTS & LEASES	96,000	46,290
REPAIRS/ALTERATIONS/MAINTENANCE	9,000	5,561
BONDS AND INSURANCE	0	117
PRINTING & BINDING	20,000	6,885
PROFESSIONAL/TECHNICAL SERVICES	15,000	3,466
DATA PROCESSING & SYSTEM SERVICES	162,000	94,500
PURCHASED SERVICES	30,000	20,136
SUBTOTAL	\$ 332,000	\$ 176,955
MISCELLANEOUS OPERATING EXPENSES		
COMMUNICATIONS	25,000	15,021
TRAVEL, IN-STATE	3,000	231
TRAVEL, OUT-STATE	40,000	14,361
FEES & OTHER FIXED CHARGES	9,000	3,612
SUBTOTAL	\$ 77,000	\$ 33,225
SUPPLIES/MATERIALS/PARTS	29,700	18,907
CAPITAL EQUIPMENT	34,300	16,321
TOTAL GENERAL FUND	\$ 1,968,000	\$ 1,011,012

ATTACHMENT B

STATE BOARD OF INVESTMENT

**Travel Summary by Date
November 16, 1992 - February 15, 1993**

<u>Purpose</u>	<u>Name(s)</u>	<u>Destination and Date</u>	<u>Total Cost</u>
New Manager Search Active Bond Managers TCW, Criterion Manager Monitoring Active Bond Manager Western	H. Bicker A. Thomas	Houston/ Los Angeles 1/18-21	\$3,150 76
New Manager Search Active Bond Managers Blackrock, BEA Standish	J. Lukens	Boston New York 1/25-27	\$381 04
New Manager Search Venture Capital Golder Thoma Manager Monitoring Venture, Real Estate Brinson, Midwest Bank Fund, Zell/Chilmark, Zell Real Estate	M. Perry	Chicago 2/3-5	\$845 59
Miscellaneous Training for "Proxy Edge" Computer Program	A. Blauzda	Chicago 2/18-19	\$697 12

ATTACHMENT C

**Bills of Interest to the Minnesota State Board of Investment
1993 Legislative Session
Includes Action Through 2/26/93**

Description of Bill	HF/SF # and Author	Current Status
SBI Bill	HF 378 (Reding)	Referred to Gov't. Op.
	SF 376 (Metzen)	Referred to Gov't. Op. Hearing 2/24
- Various Provisions	Pension Commission Recommended Amendments 2/17	
<hr/>		
Consolidating St. Paul Teachers Fund with TRA	HF 637 (Dawkins)	Referred to Gov't. Op.
- TRA assets would expand by \$360 million		

ATTACHMENT D

STATE BOARD OF INVESTMENT

(H.F. 378/S.F. 376)

**1993 LEGISLATIVE PACKAGE
SECTION BY SECTION SUMMARY**

Section(s)	Brief Description
1	Removes the SBI's Investment Advisory Council from statutory sunset provision
2,3,4,5	Authorizes the SBI to establish commingled pools to invest non-pension assets
6	Clarifies the SBI's general investment authority.
7	Eliminates an unworkable collateral requirement from the SBI's certificate of deposit program.
8,9,13	Excludes non-pension assets of local police and fire plans from being invested with pension assets in the SBI's Supplemental Investment Fund.
10	Corrects an error in 1992 legislation concerning the amortization period for gains and losses in the Environmental Trust Fund
11	Authorizes the SBI to hire a consultant to assist it in the review of the state deferred compensation plan and allows the SBI to charge to the outside vendors the costs of ongoing monitoring
12	Authorizes the SBI to charge the 403(b) annuity providers the costs of ongoing monitoring.

**1994-95 BIENNIAL BUDGET
AGENCY BUDGET BRIEF
(\$ IN THOUSANDS)**

AGENCY: STATE BOARD OF INVESTMENT	FUND: GENERAL					
SUMMARY OF AGENCY ACTIONS	F Y 1994	F Y 1995	F Y. 94 - 95	F Y. 1994	F Y. 1995	F Y. 94 - 95
CURRENT SPENDING	\$ 1,963	\$ 1,981	\$ 3,944	1	1	
FORCAST ADJUSTMENT	-0-	-0-	-0-			
GENCY BASE	<u>\$ 1,963</u>	<u>\$ 1,981</u>	<u>\$ 3,944</u>			
GOVERNOR'S INITIATIVE						
SALARY PLANNING ESTIMATES	<u>(48)</u>	<u>(48)</u>	<u>(96)</u>			
GOVERNOR'S RECOMMENDATION	<u>\$ 1,915</u>	<u>\$ 1,933</u>	<u>\$ 3,848</u>			
AGENCY MANAGEMENT DECISIONS						
HOLD POSITION VACANT	(\$48)	(\$48)	(\$96)			
DATA PROCESSING	40	40	80			
EQUIPMENT LEASES	(30)	(30)	(60)			
EQUIPMENT PURCHASES	<u>(10)</u>	<u>(10)</u>	<u>(20)</u>			
	<u>(\$48)</u>	<u>(\$48)</u>	<u>(\$96)</u>			
TOTAL AGENCY PLAN	<u>\$ 1,915</u>	<u>\$ 1,933</u>	<u>\$ 3,848</u>			

- 2 IMPACT ON STAFFING
POSITIONS LEFT VACANT
- 3 IMPACT ON REVENUE GENERATION
REDUCE NON-DEDICATED RECEIPTS
- 4 AFFECTED STATUTES ARE:
NONE
- 5 GOVERNOR'S RECOMMENDATION

The Governor recommends funding levels as requested in the agency plan.

Chief Explanation of Agency's Overall Actions:

ATTACHMENT E (con't)

1994-1995 B I E N N I A L B U D G E T
(DOLLARS IN THOUSANDS)

AGENCY: BOARD OF INVESTMENT

	FY 1994			FY 1995		
	Current Spending	Agency Plan	Governor Recomm.	Current Spending	Agency Plan	Governor Recomm.
PROGRAM RESOURCE ALLOCATION:						
ESTIMATED OF FUNDS	1,985	1,963	1,915	1,981	1,981	1,933
FUNDS/RETIRE FUNDS	15,837	19,465	19,465	19,465	19,465	19,465
TOTAL EXPENDITURES BY PROGRAM	17,822	21,428	21,380	21,446	21,446	21,398
RESOURCES OF FINANCING:						
PROJECT APPROPRIATIONS:						
GENERAL	1,793	1,963	1,915	1,981	1,981	1,933
NON APPROPRIATIONS:						
MONEY MGR FIXED INC	3,400	5,000	5,000	5,000	5,000	5,000
MONEY MGR EQUITY	9,044	12,700	12,700	12,700	12,700	12,700
TUTORIAL APPROPRIATIONS:						
PP INVEST INDEX	1	4	4	4	4	4
DATE SUPPL BOND	1	3	3	3	3	3
PP INVEST G I C	8	8	8	8	8	8
AGENCY	100					
MONEY MARKET	20	50	50	50	50	50
SUPP RET INCOME	100	100	100	100	100	100
SUPP RET GROWTH	200	100	100	100	100	100
POST RETIREMENT	1,000	1,500	1,500	1,500	1,500	1,500
TOTAL FINANCING	15,567	21,428	21,380	21,446	21,446	21,398
POSITIONS BY FUND:						
GENERAL	25.0	25.0	25.0	25.0	25.0	25.0
TOTAL POSITIONS	25.0	25.0	25.0	25.0	25.0	25.0

Tab D

COMMITTEE REPORT

DATE: March 2, 1993

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

FROM: **Manager Search Committee**

During the last quarter, the Manager Search Committee conducted three searches:

- domestic active stock managers
- domestic active bond managers
- international active country/passive stock managers

The Board member representatives on the Committee for each of the searches were:

<i>Name</i>	<i>Title</i>	<i>Representing</i>
Peter Sausen, Chair	Assistant Commissioner of Finance	Governor Carlson
Christie Eller	Assistant Attorney General	Atty. General Humphrey
Jake Manahan	Deputy State Treasurer	State Treasurer McGrath
Lisa Rotenberg	Deputy State Auditor	State Auditor Dayton
Elaine Voss	Deputy Sec of State	Sec. of State Growe

Investment Advisory Council (IAC) representatives on the Committee for each of the searches are shown below:

Domestic Stock Managers Jim Eckmann, Dayton-Hudson
Dave Bergstrom, MSRS

Domestic Bond Managers Mike Troutman, ELCA
Gary Austin, TRA

International Stock Managers Ken Gudorf, Gage Investments
Laurie Fiori Hacking, PERA

1. Domestic Stock Manager Search

The Committee interviewed ten (10) firms on January 13-15, 1993. These organizations had been approved by the SBI and IAC for inclusion in the Stock

Manager Monitoring Program (see Stock and Bond Manager Committee report included in the September 1992 SBI/IAC meeting materials):

<i>Firm</i>	<i>General Style Orientation</i>
Brandywine Asset Management	medium capitalization/value
Brinson Partners	medium capitalization/value
Equitable Capital Management	large capitalization/growth
Investment Advisers-Regional Fund	small capitalization/growth
Jundt Associates	large capitalization/growth
Kemper Asset Management	medium capitalization/growth
Lincoln Asset Management	large capitalization/growth
Mitchell Hutchins-Uncommon Value	small capitalization/value
Oppenheimer Capital	medium capitalization/value
Weiss Peck & Greer	small capitalization/growth

Based on the interviews, questionnaire responses and supporting information gathered by staff and the SBI's consultant, Richards & Tierney, the Committee is recommending that six (6) firms be retained by the SBI. A brief profile of each firm attached.

The Committee has asked that the Stock and Bond Manager Committee of the IAC recommend the amount that should be allocated to each firm. However, the Committee has recommended that one firm, Investment Advisers-Regional Fund, receive a lower allocation than other managers due to the Committee's concerns about the capacity of the firm to take on additional assets in this style.

RECOMMENDATION:

The Committee recommends that the SBI authorize the executive director, with assistance from SBI legal counsel, to negotiate and execute contracts with the following firms for active domestic stock management:

Brinson Partners, Inc.	Chicago, IL
Investment Advisers, Inc.-Regional Fund	Minneapolis, MN
Jundt Associates	Minneapolis, MN
Lincoln Capital Management	Chicago, IL
Oppenheimer Capital	New York, NY
Weiss Peck & Greer	New York, NY

2. Domestic Bond Manager Search

The Committee interviewed nine (9) firms on February 17, 1993. These organizations had been approved by the SBI and IAC for inclusion in the Bond Manager Monitoring Program (see Stock and Bond Manager Committee report included in the December 1992 SBI/IAC meeting materials).

Each of the firms provides broad market coverage but the managers emphasize somewhat different areas of expertise in their investment approaches:

<i>Firm</i>	<i>Area(s) of Emphasis/Expertise</i>
BEA Associates	sector allocation, futures and options, corporates
Blackrock Financial Management	quantitative analysis, sector allocation, mortgages
Criterion Investment Management	interest rate anticipation, sector allocation
Goldman Sachs Asset Management	quantitative analysis, yield curve positioning, mortgages
IDS Advisory Group	interest rate anticipation, corporate credit analysis
J.P. Morgan Investment Management	sector allocation, private placements
Piper Capital Management	mortgage securities, interest rate anticipation
Standish, Ayer & Wood	sector allocation, spread analysis, corporates
Trust Company of the West (TCW)	mortgage securities

Based on the interviews, questionnaire responses and supporting information gathered by staff and the SBI's consultant, Richards & Tierney, the Committee is recommending that five (5) firms be retained by the SBI:

BEA Associates
Goldman Sachs Asset Management
Standish, Ayer & Wood
IDS Advisory (government/corporate only)
Trust Company of the West/TCW (mortgage product only)

A brief profile of each firm attached.

It should be noted that the Committee has recommended that IDS Advisory be retained to manage a portfolio of government and corporate securities and that TCW be retained to manage a mortgage portfolio. The Committee assumes that these two managers will receive roughly equal initial allocations in order to provide adequate market coverage between the two firms.

The Committee has asked that the Stock and Bond Manager Committee of the IAC recommend the amount that should be allocated to each firm. However, two firms, Goldman and Standish, are being recommended for higher initial allocations than those determined for the other managers based on the Committee's assessment of the strength of those organizations

RECOMMENDATION:

The Committee recommends that the SBI authorize the executive director, with assistance from SBI legal counsel, to negotiate and execute contracts with the following firms for active domestic bond management:

BEA Associates	New York, NY
Goldman Sachs Asset Management	New York, NY
Standish, Ayer & Wood	Boston, MA
IDS Advisory (government/corporate portfolio)	Minneapolis, MN
Trust Company of the West/TCW (mortgage portfolio)	Los Angeles, CA

3. International Active/Passive Manager Search

The Committee reviewed information on all firms known to provide active country/passive stock management. The information was compiled by the SBI's consultants, Pension Consulting Alliance and Richards & Tierney, and SBI staff. The Committee narrowed the list to four (4) firms based on the following criteria.

- approximately five or more years of performance history in active/passive products
- assets under management of at least \$300 million in this product
- value added to EAFE over the last 3 years and since inception of the product

The Committee interviewed the following active country/passive stock international managers on February 3, 1993.

Baring International Investment, Ltd.	London, UK
Brinson Partners, Inc.	Chicago, IL
IDS International	London, UK/Minneapolis, MN
Morgan Stanley Asset Management	New York, NY

Based on the interviews, questionnaire responses and supporting information gathered by staff and the SBI's consultants, the Committee is recommending that two (2) firms be retained by the SBI. A brief profile of each firm attached.

The Committee has asked that the Stock and Bond Manager Committee of the IAC recommend the amount that should be allocated to each firm.

RECOMMENDATION:

The Committee recommends that the SBI authorize the executive director, with assistance from SBI legal counsel, to negotiate and execute contracts with the following firms to provide international stock management services:

**Baring International Investment, Ltd.
Brinson Partners, Inc.**

DOMESTIC STOCK MANAGER FACT SHEET

Manager: Brinson Partners

Investment Philosophy

Brinson Partners uses a relative value approach to investing in equities. They believe that the market price will ultimately reflect the present value of the cash flows that the security will generate for the investor. They also believe both a macroeconomic theme approach and a bottom-up stock selection process can provide insight into finding opportunistic investments. Brinson Partners uses their own discounted free cash flow model as their primary analytical tool for estimating the intrinsic value of a company.

Research

Brinson Partners' in-house investment research focuses on both parts of their investment process. First they analyze macroeconomic forces within the equity market to understand what secular trends are occurring and then focus their research on those sectors of the market. This analysis also provides the framework of macroeconomic assumptions for the analysts' research. Secondly, they analyze at the company level to generate the necessary input for their intrinsic value models. Their in-house research staff gathers information to produce financial projections to generate normalized cash flow and growth rate expectations. They also calculate a discount rate for each company by determining a market equilibrium rate and adjusting it based on an internally derived beta for that stock. Lastly, they visit the company to talk to management and to conduct an on-site evaluation of their facilities.

Portfolio Management

Companies in the top 20% of Brinson's valuation ranking are reviewed to determine their potential impact on the entire portfolio. If appropriate, Brinson purchases the stock and prepares an investment summary to serve as a guideline to monitor the company going forward. Brinson tries to buy companies that are at least 20% undervalued but some market environments force that objective to be lower.

Brinson sells a company for one of two reasons. First, a company is sold if it has appreciated so that its valuation ranking has dropped below the 50th percentile. Typically Brinson will start to slowly sell off a stock as it approaches its fair value. Secondly, they sell a stock to cut potential losses if a company's performance deviates from their analysis and it becomes apparent that their assumptions were incorrect.

Ownership

Approximately 63% of the firm is owned by the employees. About half the employees have some ownership in the firm. The rest of the ownership is held by several outside investors with the greatest percentage of ownership being no greater than 11%.

Total equity assets managed. \$4,550 million

Total tax-exempt equity assets managed for this discipline: \$2,725 million

Total number of tax-exempt accounts for this discipline: 70

Three largest tax-exempt accounts:	Corporate plan	\$627 million
	Public	\$215 million
	Corporate	\$194 million

Return History

Latest	Portfolio	Benchmark	VAM
1yr	12.24%	10.76%	1.34%
3 yrs	10.26	8.44	1.68
5 yrs	11.87	8.34	3.25
Cum 871Q - 923Q	16.05	12.66	3.01
Std Dev	18.48	19.05	4.14

DOMESTIC STOCK MANAGER FACT SHEET

Manager: Investment Advisers, Inc.
Regional Fund

Investment Philosophy

IAI's investment philosophy is to own the highest quality companies which demonstrate sustainable growth. The objective of this discipline is capital appreciation. The objective is pursued by investing at least 80% of its equity investments in companies which have their headquarters in Minnesota, Wisconsin, Iowa, Nebraska, Montana, North Dakota, South Dakota (the "Seven State Region"). Twenty percent of the portfolio can be used to purchase large capitalization stocks that have headquarters outside the seven state region.

Research

All of IAI's portfolio managers do their own research and are assisted by two equity analysts who perform additional research. Managers have individual responsibilities and will visit companies to make direct research contacts. IAI utilizes its Venture Capital management team for direct research in specialized areas such as technology, telecommunications, and medically-related industries.

Portfolio Management

The investment process begins by looking at all companies in the seven state region. Fundamental research is applied to these companies with regard to earnings growth, management, intrinsic value, and overall economic conditions. The direct research will be carried out through a vast schedule of company visits. From these direct visits, information is derived such as: the strength of company management; the market leadership position; the state of the current markets; insight to adjacent markets; views on new products; and market growth. In addition, company competitors and vendors are interviewed in this process. Only after fundamental and direct research has taken place will a company be considered for the portfolio.

The stock selection process is bottom up. Fundamental direct research by IAI is the main factor in assessment of companies. In addition, screens used include revenue and earnings growth, debt to capital, and return on equity. Bing Carlin is the portfolio manager for all regional portfolios including the Regional Fund.

Ownership

IAI is part of the Hill Samuel Group which is owned by Trustee Savings Bank Group plc (TSB). IAI reports directly to Hill Samuel.

Total equity assets managed. \$3,285 million

Total tax-exempt equity assets managed for this discipline. Not provided in response

Total number of tax-exempt accounts for this discipline: Not provided in response

Three largest tax-exempt accounts:	IAI Regional Fund	\$577 million
	Minneapolis Teachers	\$38 million
	Corporate Client	\$23 million

Return History

Latest.	Portfolio	Benchmark	VAM
1yr	5.91%	13.31%	-6.53%
3 yrs	10.89	11.40	-0.45
5 yrs	12.47	10.32	1.94
Cum 871Q - 923Q	15.32	13.51	1.59
Std Dev	16.38	17.44	4.62

DOMESTIC STOCK MANAGER FACT SHEET

Manager: **Jundt Associates**
 Core Growth

Investment Philosophy

Jundt Associates' investment philosophy is growth-oriented with a focus on companies generating significant revenue increases. Concentration is placed on larger-capitalization companies, with at least half the equity securities consisting of companies with annual revenues over \$750 million. Within these parameters, the firm's mission is to establish equity positions in 30 to 50 of the fastest growing corporations in America. Particular emphasis is placed on companies the firm believes will achieve annual rates of revenue growth of 15% or greater.

Research

Jundt derives its investment ideas from three sources. About 50% of information is generated from broker contacts. Meetings with company management accounts for 25% and the other 25% is obtained from investment conferences. The majority of their fundamental research is done in-house.

Portfolio Management

Jundt Associates utilizes a bottom-up stock selection process combined with a top-down theme overlay. It is the goal of the partners to identify five to seven investment themes and typically invest in three to five stocks within each theme. Although they do not make economic forecasts, they do identify several macro-themes which affect their investment universe, such as inflation and demand for exports. They also identify industry or sector themes.

The accounts at Jundt are managed according to a team concept. Each of the principals is involved in both research and portfolio management of every portfolio. Any one of the professionals may buy a 1% position in an issue even though the others may not be enthusiastic about the stock.

Each of the principals is involved in the sell decision process. An issue may be sold for the following reasons: (1) the stock has grown to more than 5% of the portfolio market value; (2) a stock is undergoing fundamental disappointment; or (3) a stock is acting poorly in the market relative to reasonable expectations, in which case, a holding would not be eliminated, but exposure would be reduced.

Cash fluctuates between 0-30% of a portfolio at any point in time depending on the amount of investment opportunities available.

Ownership

Jundt Associates is wholly-owned by its employees.

Total equity assets managed: \$2,963 million

Total tax-exempt equity assets managed for this discipline: \$1,488 million

Total number of tax-exempt accounts for this discipline: 13

Three largest tax-exempt accounts: Virginia Retirement System	\$240 million
Dana Corporation	\$220 million
Pacific Telesis	\$140 million

Return History

Latest.	Portfolio	Benchmark	VAM
1yr	7.17%	8.80%	-1.50%
3 yrs	17.34	11.62	5.12
5 yrs	13.12	9.33	3.46
Cum 871Q - 923Q	18.52	14.34	3.65
Std Dev	19.08	18.11	7.18

DOMESTIC STOCK MANAGER FACT SHEET

Manager: Lincoln Capital Management

Investment Philosophy

Lincoln Capital Management concentrates on established medium-to-large capitalization companies that have demonstrated historically strong growth and where that growth is expected to continue. Lincoln uses traditional fundamental company analysis and relative price/earnings valuation disciplines. In addition to prominent size and growth characteristics, companies held by Lincoln generally exhibit premium price/book ratios, high return on equity, strong balance sheets and moderate earnings variability. Lincoln has held large cash positions in the past. It generally avoids market timing strategies.

Research

Lincoln has five analysts who follow specific industries which Lincoln believes have attractive growth opportunities. The analysts use traditional fundamental research, using both company publications and Street research. Lincoln also maintains direct contact with the companies it follows and their competitors.

Portfolio Management

Lincoln follows approximately 250 stocks. The firm develops this universe through a screen of the COMPUSTAT universe. The screen identifies companies with high historic growth rates that are large enough in size to satisfy Lincoln's liquidity needs. The universe is fairly stable. However, stocks failing to exhibit sufficient growth periodically are removed and smaller, faster growth stocks are added as liquidity warrants.

Lincoln's valuation discipline focuses on the spread of the current relative price/earnings ratio to the analyst determined target price/earnings ratio. Lincoln's investment committee reviews analysts' target relative price/earnings ratios and decides which stocks have sufficient attractive spreads to warrant purchase.

Sales occur primarily when there is a meaningful change in a company's earnings outlook or when the relative price earnings ratio is achieved.

Portfolios usually contain 35-40 stocks and relatively low turnover with a cash position of 5% on average, rarely rising above 10%.

Ownership

Lincoln Capital is 100% wholly owned by its investment professionals.

Total equity assets managed: \$7,047 million

Total tax-exempt equity assets managed for this discipline: \$6,300 million

Total number of tax-exempt accounts for this discipline: 33

Three largest tax-exempt accounts:	General Motors	\$547.5 million
	Ameritech	\$511.6 million
	Virginia Retirement System	\$460.5 million

Return History

Latest	Portfolio	Benchmark	VAM
1yr	13.27%	10.19%	2.79%
3 yrs	16.61	11.68	4.41
5 yrs	13.53	9.46	3.72
Cum 871Q - 923Q	20.03	15.97	3.50
Std Dev	19.01	19.18	3.96

DOMESTIC STOCK MANAGER FACT SHEET

Manager: Oppenheimer Capital

Investment Philosophy

Oppenheimer's investment objectives are three-fold: 1) to preserve capital in falling markets; 2) to manage risk in order to achieve less volatility than the market; and 3) to produce returns greater than the market indices, the inflation rate and a universe of comparable portfolios with similar objectives.

They achieve their objectives by purchasing securities they consider to be undervalued on the basis of known data and strict financial standards and by making timely changes in the asset mix of their portfolios. Based on its outlook on the market and the economy, Oppenheimer may aggressively shift funds between cash and equities.

Portfolio Management

When evaluating stocks, Oppenheimer analyzes five key variables: 1) management; 2) financial strength; 3) profitability; 4) industrial position; and 5) valuation. This analysis is performed by an analyst who sponsors the idea. Upon completion of the analysis, the idea is presented to the entire staff of investment professionals for further questioning and evaluation. At this point, a decision is made whether to add it to the firm's list of permissible investments. This list typically includes about 80 securities.

Utilizing the list of approved securities, a portfolio manager constructs diversified portfolios within individual client guidelines and restrictions. The portfolio's holdings are driven by stock selection based on fundamentals, not by economic or industry overviews. Portfolios typically have low turnover, with an average holding period of two to three years.

A stock will be sold if the price exceeds Oppenheimer's definition of value. At the time of purchase, a target price is established for a stock. As the price of the stock approaches 85% of the target price, it becomes a candidate for sale. At this time, the company is reanalyzed and a decision is made whether to sell or to set a higher target price for the stock. Least attractive issues also may be sold if Oppenheimer finds more attractive companies or when a decision is made to raise cash.

Ownership

Oppenheimer is 66.4% owned by the public through a limited partnership and 33.6% by employees.

Total equity assets managed: \$13,334.5 million

Total tax-exempt equity assets managed for this discipline: \$12,937 million

Total number of tax-exempt accounts for this discipline: Not provided

Three largest tax-exempt accounts: Arkansas Teachers Retirement \$1,190.9 million
Penn Public School Employees 1,005.7 million
NY State Common Retirement Fund 887.2 million

Return History

Latest	Portfolio	Benchmark	VAM
1yr	15.80%	10.50%	4.80%
3 yrs	10.47	8.40	1.91
5 yrs	10.24	8.97	1.17
Cum 871Q - 923Q	13.60	12.43	1.04
Std Dev	15.68	15.01	2.86

DOMESTIC STOCK MANAGER FACT SHEET

Manager: **Weiss Peck & Greer**
 Dynamic Growth

Investment Philosophy

Weiss, Peck & Greer's dynamic growth process concentrates on small to medium size growth companies that have demonstrated consistent superior earnings growth rates. The process emphasizes companies in new or dynamic, rapidly growth industries where there is a potential for a major acceleration in earnings growth. Weiss, Peck & Greer also believes that superior stock selection can be achieved through in-depth fundamental company research.

Research

In researching individual companies, WP&G's staff analyzes several types of evaluation criteria. The analysts look for good business fundamentals, including a strong balance sheet, high return on equity and pretax margins, and a 15% or greater earnings growth rate. They want a company that has a price earnings ratio to growth rate that is less than 1.0. They also look for a positive change in industry fundamentals or a unique product or service that will accelerate profitability. Lastly, they evaluate management and look for any hidden asset values that are not being fully utilized.

Portfolio Management

The portfolio construction process incorporates both top down and bottom up processes to determine the portfolio holdings. The investment themes and sector weightings are determined based on various economic, financial and technical data. Then the bottom up selection process determines which stocks will be purchased to fill the openings in the portfolio.

Portfolio holdings will be sold for different reasons: 1) the price objective has been met; 2) they wish to reduce company or industry exposure; 3) the company's performance is below expectations; or 4) they made a mistake.

Ownership

The firm's general partners own 75% of the firm. The minority ownership is held by Lloyds America Securities Corporation.

Total equity assets managed: \$2,064 million

Total tax-exempt equity assets managed for this discipline: \$1,077.2 million
(includes \$512.7 million in mutual fund)

Total number of tax-exempt accounts for this discipline: 10

Three largest tax-exempt accounts:	GTE	\$241 million
	LA County Employees	\$191 million
	James Irvine Foundation	\$49 million

Return History

Latest:	Portfolio	Benchmark	VAM
1yr	0.96%	6.05%	-4.80%
3 yrs	7.43	6.05	1.30
5 yrs	6.70	5.55	1.09
Cum 871Q - 923Q	16.07	10.62	4.92
Std Dev	21.82	21.49	6.85

DOMESTIC BOND MANAGER FACT SHEET

Manager *BEA Associates*

Investment Approach

BEA's investment approach focuses on individual bond selection and on sector selection rather than on short term interest rate forecasting. Duration is maintained close to the client specified benchmark, but depending on the long term economic outlook it may be modestly longer or shorter. Over time, BEA's duration has been between 5 and 5.3 years. BEA adds value through individual issue and sector selection and through opportunistic trading.

BEA's approach is distinguished by 1) a quantitative approach which avoids market timing 2) contrarian weightings of bond sectors and 3) rigorous call and credit analysis rather than yield driven management.

The portfolio is initially structured so its option-adjusted duration is close to the benchmark duration. Usually, the structuring process is started with securities which have the greatest liquidity. Then, as opportunities arise, BEA swaps into corporate and mortgage securities, while keeping duration constant. BEA uses proprietary quantitative models to control risk along the yield curve and limit interest rate timing.

Volatility analysis, credit/yield spread appraisals and convexity management contribute to BEA's sector weighting. Historically, the corporate sector has been overweighted because they believe this sector provides the greatest inefficiencies and opportunities. The firm also enhances portfolio returns by using foreign bonds in cases where clients have given them approval. BEA normally has less than a ten percent allocation to mortgage securities.

Employing a vast network of Wall Street sources and their own option pricing models on call analysis, BEA looks for supply-demand imbalances and inappropriate credit ratings. These situations generate pricing inefficiencies on which BEA capitalizes. Financial futures are sometimes used in place of Treasuries when mispricings occur or they offer a more efficient portfolio structure. BEA also uses futures and options volatility trading strategies to enhance the cash portion of its portfolios.

Ownership

BEA Associates is a general partnership organized under the laws of the State of New York. Credit Suisse Capital Corporation is an 80% partner and Basic Appraisals, Inc is a 20% partner in BEA Associates.

Assets Under Management

Total fixed income assets managed	\$ 5,590 million
Total tax-exempt fixed income assets managed in the core style	\$ 2,382 million
Total number of tax-exempt fixed income accounts managed in the core style	80
Largest tax-exempt account managed in this style	\$ 245 million
Smallest tax-exempt account managed in this style	\$ 3 million
Average tax-exempt account managed in this style	\$ 30 million

Return History

Latest	Portfolio	Benchmark	VAM
1 yr	9.65%	7.59%	1.91%
3 yrs	11.72%	10.81%	.82%
5 yrs	11.57%	10.96%	.55%
Cum 842Q - 924Q	13.66%	12.59%	.95%
Std Dev	5.04%	5.29%	2.01%

DOMESTIC BOND MANAGER FACT SHEET

Manager: *Goldman Sachs Asset Management*

Investment Approach

The primary focus of GSAM's portfolio strategy is security selection, followed by sector allocation and duration/yield curve positioning. The approach is bottom-up, and the firm does not make significant duration bets. GSAM will manage to any fixed income benchmark the client chooses.

GSAM does not expect to derive significant performance enhancement from speculating on the future direction of interest rates. Rather, they use economic analysis to anticipate changes in the shape, not level, of the yield curve. The duration of the portfolio is then typically kept within .5 years of the benchmark. This economic environment analysis, however, also plays an important role in the assessment of credit direction of corporate issuers.

Sector allocation decisions are made based on two factors. First, internal statistical models relate spreads across sectors as functions of the level and shape of the yield curve, volatility, economic activity and other factors. Second, technical factors are assessed by traders to determine supply and demand imbalances which may create opportunities. The firm is normally overweighted in mortgage and corporate securities and underweighted in the Treasury sector versus the aggregate market. The firm purchases international bonds for those clients that allow them in their portfolio.

Security selection is the primary focus of GSAM's portfolio management. When analyzing Treasuries, the firm models Treasury coupons with an arbitrage-based pricing model. This model determines the spread between actual market yields and what they determine is the intrinsic value. This helps determine the relative richness or cheapness of securities.

In their analysis of mortgage securities, GSAM takes a highly quantitative and analytical approach. Using proprietary research and internally developed models, extremely complex mortgage securities are analyzed and undervalued securities are uncovered.

In the corporate sector, GSAM performs its own credit review of each issuer in which portfolios may invest. Credit analysts and portfolio managers endeavor to meet with or interview the management of companies in which it invests. Significant time is spent analyzing industrial and financial institutions. Extensive credit research tempered with market knowledge and trading skill allows GSAM to maximize returns.

Ownership

Goldman Sachs is a private partnership.

Assets Under Management

Total fixed income assets managed	\$ 14,064 million
Total tax-exempt fixed income assets managed in this style	\$ 4,100 million
Total number of tax-exempt fixed income accounts managed in this style	29
Largest tax-exempt account managed in this style	\$ 1,546 million
Smallest tax-exempt account managed in this style	\$ 28 million
Average tax-exempt account managed in this style	\$ 141 million

Return History

Latest	Portfolio	Benchmark	VAM
1 yr	8 66%	7 59%	.99%
Cum 904Q - 924Q	13 65%	12 72%	83%
Std Dev	3 51%	3 36%	50%

DOMESTIC BOND MANAGER FACT SHEET

Manager: *Standish, Ayer & Wood*

Investment Approach

Standish, Ayer & Wood attempts to add value by capitalizing on market inefficiencies and trading actively through intra and inter-sector swapping. The firm does not employ interest rate guessing, but focuses on the use of non-Treasury issues as these are normally less efficient than Treasury issues. In particular, the firm uses new, innovative types of securities as these tend to be overlooked or improperly analyzed by fixed income managers. These securities are often improperly priced and provide an excellent source of value added for bond portfolios.

Although the firm primarily uses fundamental analysis, the firm also uses quantitative analysis as a filtering process to arrive at final decision making. Quantitative research is employed first in overall determination of the relative attractiveness of the bond market and then brought down to the level of sectors and individual issues.

Key to the approach is active sector trading and relative spread analysis of both sectors and individual issues. In addition to historical spreads, evolving secular trends and how they may affect relationships are analyzed. The firm believes that 65% of its value added comes from inter-sector swapping in the non-government sectors of the bond market. Every purchase decision has an implied sell decision based on the spread relationship. Sell decisions based purely on fundamental considerations are rare, but the firm will liquidate an issue when they felt there was a chance of adverse event risk.

Since the firm does not bet on the direction of interest rates, the duration of the portfolio is kept within +/- 15 percent of the portfolio.

Portfolios are constructed according to the sector weightings established by the firm's bond policy committee. The maximum exposure to Treasuries is 20%, but generally the firm's exposure is close to zero. The portfolio universe includes corporates with a minimum rating of BBB, securitized instruments, short zeros such as FICO's and non-dollar bonds. Cash generally ranges from zero to five percent and is used to shade duration rather than as a timing mechanism.

Ownership

Standish, Ayer & Wood is independently owned by operating management.

Assets Under Management

Total fixed income assets managed	\$ 17,300 million
Total tax-exempt fixed income assets managed in this style	\$ 6,848 million
Total number of tax-exempt fixed income accounts managed in this style	60
Largest tax-exempt account managed in this style	\$ 547 million
Smallest tax-exempt account managed in this style	\$ 2 million
Average tax-exempt account managed in this style	\$ 114 million

Return History

Latest	Portfolio	Benchmark	VAM
1 yr	7.67%	7.59%	.08%
3 yrs	11.84%	10.81%	.93%
5 yrs	12.04%	10.96%	.97%
Cum 841Q - 924Q	13.18%	12.12%	.94%
Std Dev	5.49%	5.28%	1.65%

DOMESTIC BOND MANAGER FACT SHEET

Manager: *IDS Advisory Group*

Investment Approach

IDS Advisory's approach uses duration management combined with in-depth fundamental analysis of the corporate sector of the market. Superior returns are achieved by actively managing each of these components. It is based on the philosophy that changing economic and business conditions create investment opportunities and macroeconomic and financial analysis identifies the shorter term and longer term factors shaping the investment environment and the direction of interest rates.

Active duration management begins with an economic overview and interest rate outlook. These factors help determine both the short and long term interest rate forecast and leads to duration positioning. Historically, the duration of the firm's portfolios has ranged from 4.8 to 8 years.

From here, sector allocation is determined. IDS relies greatly on its research capabilities and has devoted considerable resources to the development and operation of its research department. Over time, IDS portfolios have been heavily overweighted in the investment grade corporate sector and underweighted in the mortgage sector.

With the emphasis on corporates, analysis of this sector is critical. Industries are rated as improving, stable, or deteriorating. Only the stable and improving industries are candidates for investment. Not more than 20% of the portfolio is invested in any single industry group, and below investment grade securities are not purchased.

Once the sector and industry allocation has been determined, security selection takes place. Securities are selected based on their ability to outperform their respective industry groups on a risk-adjusted basis. The coupon, call provisions and quality of each security is analyzed before investing. Proper security selection contributes significantly to total returns.

Ownership

IDS Advisory Group is owned by IDS Financial Corporation, an American Express Company.

Assets Under Management

Total fixed income assets managed	\$ 2 922 million
Total tax-exempt fixed income assets managed in this style	\$ 1 492 million
Total number of tax-exempt fixed income accounts managed in this style	62
Largest tax-exempt account managed in this style	\$ 284 million
Smallest tax-exempt account managed in this style	\$ 5 million
Average tax-exempt account managed in this style	\$ 24 million

Return History

Latest	Portfolio	Benchmark	VAM
1 yr	8 87%	7 59%	1 19%
3 yrs	11 14%	10 81%	3 0%
5 yrs	11 62%	10 96%	5 9%
Cum 851Q - 924Q	12 57%	11 78%	7 1%
Std Dev	6 69%	5 06%	2 30%

DOMESTIC BOND MANAGER FACT SHEET

Manager: *Trust Company of the West (TCW)*

Investment Approach

TCW manages across all sectors of the market. Its assets are broken down into four primary products. They are a broad market high grade fixed income product, a mortgage securities product, a high grade short-intermediate maturity product and a mortgage-backed short-intermediate product. The search committee is recommending TCW be hired for their highly successful and specialized mortgage product.

The objective of TCW's mortgage-backed securities management is to achieve returns above the broad bond market by investing substantially in securities collateralized by mortgages guaranteed by the U.S. government or one of its agencies.

The firm uses a disciplined investment approach based on the determination and control of the many risk components of the markets. Within this context, security selection is emphasized. TCW has an excellent staff of professionals who have had experience with CMO's since they were first originated. The staff analyzes various Wall Street models and the validity of their underlying assumptions. They have added significant value by understanding the strengths and weaknesses of these models. This has helped them purchase undervalued securities and avoid those that are overpriced.

The investment process concentrates on fully understanding the wide range of mortgage security structures and the variables affecting the returns of these investments. The process is based on long-term value considerations. They do not attempt to forecast short-term trends in interest rates and therefore do not frequently alter average portfolio maturities. Portfolios remain substantially invested in mortgage-backed securities under the great majority of market conditions. Exposure to the sector can be reduced, however, when the yield advantage over Treasury bond alternatives shrinks to a level at which the latter offer greater long-term value.

Ownership

The ownership of TCW lies 88% with management and 12% with outside directors.

Assets Under Management

Total fixed income assets managed	\$ 11,249 million
Total tax-exempt fixed income assets managed in the mortgage-backed securities style	\$ 2,082 million
Total number of tax-exempt fixed income accounts managed in the mortgage -backed securities style	24
Largest tax-exempt account managed in the mortgage backed style	\$ 600 million
Smallest tax-exempt account managed in the mortgage backed style	\$ 2 million
Average tax-exempt account managed in the mortgage backed style	\$ 87 million

Return History

Latest	Portfolio	Benchmark	VAM
1 yr	16.75%	7.59%	8.51%
3 yrs	16.80%	10.81%	5.40%
Cum 891Q - 924Q	16.64%	11.72%	4.40%
Std Dev	3.42%	4.11%	1.90%

INTERNATIONAL ACTIVE/PASSIVE MANAGER FACT SHEET

Manager: **Baring International Investment Ltd.**
Active/Passive EAFE Equity

Inception Date: January 1988
Current # Accounts: 5
Current Assets: \$412 Million
Other Non-U.S. Stocks: \$3,615 Million

Allocation Process

Barings Strategic Policy Team (SPT) is responsible for country and currency allocation decisions. The SPT uses a macro economic framework to identify growing economies as evidenced by positive changes in GDP and interest rates. The SPT uses multiple quantitative and qualitative inputs:

- **Regional Specialists.** Specialists in London, Tokyo and Hong Kong provide 6-12 month earnings forecasts and local market opinions.
- **Economics Group.** Economists within Barings supply a world view on economic, interest rate and currency forecasts.
- **Local Market Valuations.** Individual market analysis compares current and historical valuations
- **Computer Model.** An internal computer model generates an expected rate of return for major markets and is used as an "audit" of the qualitative market valuations.
- **Currency Managers.** Currency specialists within Barings provide information on flow of funds, currency rates, monetary policy, inflation and interest rates

The SPT interacts continuously but meets formally at least monthly to review allocation decisions.

Implementation Process

Barings uses State Street Global Advisors/State Street Bank and Trust to construct individual country index funds. State Street uses a full replication strategy to match the indices within EAFE. Barings advises State Street of the allocation decisions and they invest accordingly in the various country index funds. State Street also implements any hedging strategies under Barings direction.

Ownership/Location

Baring International Investment Limited is owned by Baring Asset Management Limited which, in turn, is part of Barings PLC, a private charity. Baring International was founded in 1980, Baring Asset in 1975, and Barings in 1763

Baring International is headquartered in London. Other offices are in Tokyo and Hong Kong. Their U.S. client service operations are located in Boston and San Francisco.

Current Active/Passive Clients

Colorado PERA	1/88
City of Dallas	3/88
Hannaford Bros	9/88
State of Utah	1/89
Central Maine Power	1/90
State of Florida	1Q92

Return History

Latest	Portfolio	Benchmark	VAM
1 yr	2.33%	-12.17%	16.52%
3 yrs	-0.50%	-8.98%	9.32%
Cum 881Q - 924Q	6.97%	1.00%	5.91%
Std Dev	16.22%	20.15%	6.54%

$$\text{VAM} = \frac{\text{portfolio}}{\text{benchmark}}$$

**INTERNATIONAL ACTIVE/PASSIVE MANAGER
FACT SHEET**

Manager: **Brinson Partners, Inc.**
Active Country Portfolio

Inception Date: January 1988
Current # Accounts: 6
Current Assets: \$527 Million
Other Non-U.S. Stocks: \$2,881 Million

Allocation Process

Brinson uses a proprietary valuation model to rank the relative attractiveness of individual markets based on fundamental considerations. Inputs include forecasts for:

- growth
- inflation
- risk premiums
- foreign exchange movements

Quantitative tools are used to monitor and control portfolio risk. Qualitative judgments from the firm's professionals in Chicago, London and Tokyo are used to determine final allocations.

Brinson constructs an allocation range around the target index to define the limits of their exposure and to assure diversification. If they are indifferent on country valuations, they will opt for index weightings.

Brinson believes currency is a minor factor in generating wealth from international assets in the long run. Therefore, their currency management is primarily defensive. Long term currency forecasts are combined with forecasts of local market returns to produce a currency-adjusted expected return for each market. Brinson will actively manage currency exposure when they identify large currency price/value discrepancies.

Implementation Process

Brinson constructs its own country index funds using a proprietary optimization system. An iterative process is used to sample the index and progressively reduce the number of holdings by eliminating small positions.

Ownership/Location

Approximately 63% of Brinson Partners is owned by employees. The remainder is held by several outside investors. The firm was founded in 1989. Prior to that time the operation was part of First Chicago Corp. which was founded in 1969.

Brinson's home office is in Chicago. Other offices are in London and Tokyo.

Current Active/Passive Clients

Public	1/88
Corporate	2/89
Corporate	2/89
Corporate	1/91
Public	5/92
Public	7/92

Return History

Latest	Portfolio	Benchmark	VAM
1 yr	-1.44%	-12.17%	12.22%
3 yrs	1.99%	-8.98%	12.05%
Cum 881Q - 924Q	8.88%	1.00%	7.81%
Std Dev	14.99%	20.15%	7.17%

VAM = $\frac{\text{portfolio}}{\text{benchmark}}$

Tab E

COMMITTEE REPORT

DATE: February 22, 1993

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

FROM: Asset Allocation Committee

The Asset Allocation Committee met on February 16, 1993 to review the following agenda items:

- Update on Post Retirement Fund asset allocation transition
- Review of interim performance benchmark for the Post fund
- Update on international issues
- Discussion of total fund performance standards for the Basic Funds, Post Fund and Combined Funds

None of the items requires action by the SBI at this time.

1. Update on Post Fund Asset Allocation Transition

The SBI has established new long term asset allocation targets for the Post Retirement Fund and is increasing the equity exposure of the Fund throughout Fiscal Year 1993. The following chart shows the progress through January 1993:

	June 30, 1992	January 31, 1993	Long Term Targets
Stocks	9%	32.4%	50%
Bonds	80%	64.1%	47%
Cash	11%	3.5%	3%

2. Review of Interim Post Fund Benchmark

When the transition is complete, the Post Fund will employ the same asset class targets as the Basic Funds:

Domestic Stocks Wilshire 5000
Domestic Bonds Salomon Broad Investment Grade (BIG) Index
Cash Equivalents 91 Day US Treasury Bills

During the transition, staff is measuring the performance of the Post Fund against the following standards

Bond Segment: Shearson Lehman Government/Corporate Bond Index

Due to the structure of the internally managed cash-matched dedicated bond portfolio, the bond segment of the Post Fund is dominated by US Treasury Bonds, has minimal corporate issues and holds no mortgages. As a result, the above index is representative of the bond segment at this time. The Salomon BIG, the market index used for the bond segment of the Basic Funds, includes a substantial portion of mortgages and is therefore not an appropriate performance standard during the transition

Stock Segment: S&P 500 and Post Fund Stock Benchmark

The actively managed, value-oriented style of the stock segment is being converted to a passively managed portfolio with a broad market exposure. This change will make the Post Fund stock segment more compatible with the externally managed index fund and is more representative of the stocks that the external active managers may choose to hold

During the first six months of transition, the Post Fund stock segment is being measured against the following composite. The growing weight given the S&P 500 corresponds to the growth in the Post Fund stock segment.

Month	Benchmark Weight	S&P 500 Weight
July	75%	25%
August	63	37
September	52	48
October	43	57
November	37	63
December	30	70

The S&P 500 will be given a 100% weight for the remainder of the transition

Cash Segment: 91 Day Treasury Bills

This is the performance standard used for the cash holdings in all of the SBI's retirement related funds.

Total Fund: Composite of Above Indices

The total fund is measured against a composite of the above indices that reflects the changing asset mix of the fund. The weights are set equal to the actual market value of each segment at the start of each month. The weights used through December 1992 are shown below:

Month	Stocks	Bonds
July 1	11%	89%
August 1	13	87
September 1	16	84
October 1	20	80
November 1	24	76
December 1	31	69

After review and discussion, the Asset Allocation Committee endorsed the above benchmarks and recommends that these benchmarks be used during the asset allocation transition.

3. Discussion of Total Fund Performance Objectives

In February 1989, the Task Force on Fund Objectives recommended several performance objectives for the Basic Retirement Funds and the Post Retirement Funds. The Board adopted the recommended standards for each fund and the approved objectives were incorporated into subsequent quarterly and annual investment performance reports.

Staff recommends that the existing standards be reviewed and modified due to the significant changes in the long term asset allocation targets of the Post Fund. When the new allocation targets are in place, both the Basic and Post Funds will be oriented toward maximizing long term total rates of return. This change should be reflected in the performance objectives used to measure investment results of each fund in future time periods. Since both funds will have a similar long range focus they can be compared to appropriate objectives on a combined basis as well.

Staff recommends that the objectives for the Combined, Basic and Post Funds follow the structure of the existing standards for the Basic Funds:

- provide real rates of return
- exceed median fund
- exceed market index composite

The Committee and staff agree that the first two objectives (real return and median fund comparisons) are appropriate for the measuring the performance of the Combined Funds since both are now oriented toward maximizing long term total rates of return. They also agree that separate composites should be used to measure performance against the third objective (market index composite comparisons).

The current objectives for the Basic Funds and the modifications necessary to accommodate the proposed changes are shown in **Attachment A**. For reference, a chart showing the asset allocation targets of the Funds and the historical median allocation of the funds in the Trust Universe Comparison Service (TUCS) is in **Attachment B**.

The Committee and staff are working on a reporting format that appropriately reflects the revised objectives. The Committee feels a new one page report should be developed to replace the existing "Return Objectives" report now included as the first page of Tab A of the quarterly "Board folder" and discussed using a "grid" format shown in **Attachment C**.

The Committee would like the entire IAC to discuss the report format at the Council meeting on March 10, 1993. It is the Committee's goal to finalize the format during the next quarter and bring a proposal to the Board at the June 1993 meeting.

The Committee also discussed whether or not the goal of exceeding the median fund in TUCS is an appropriate objective. In the past, Board members have suggested higher goals (e.g. performance in the top third of all pension funds) and have asked what changes would need to be made to reach such a goal.

The Committee believes the current objective to exceed the performance of the median fund over moving 5 year periods is an aggressive goal for the Funds given their current constraints. Members believe that higher rankings against other pension funds are not realistic given the historical asset allocation targets approved by the Board and the investment restrictions currently in place.

4. Update on International Index Manager Funding

State Street Asset Management, the SBI international index manager, received funding of \$100 million during the months of December, January and February. The monthly investment activity in the international passive account to date is as follows:

Month	Crossed Trades	Market Trades	Total	% Crossed
October	\$113.5	\$10.9	\$124.4	91.2%
November	61.2	14.5	75.7	80.9
December	17.0	83.0	100.0	17.0
January	8.4	91.6	100.0	8.4
February	<u>78.7</u>	<u>21.3</u>	<u>100.0</u>	<u>78.7</u>
Total	\$278.8	\$221.3	\$500.1	55.7%

A "crossed trade" is accomplished by matching up a buyer and seller among State Street's clients. In so doing, both clients save transaction costs. A "market trade" is a transaction made in the open market which does incur transaction costs.

The percentage of trades crossed from October to February at little or no transaction costs (56%) is higher than the 20-40% initially anticipated and has resulted in additional cost savings.

5. Progress on Review of Active International Managers

A Search Committee was convened in February to interview active country/passive stock managers. Two firms are being recommended to the Board at the March 1993 meeting. If approved, these managers will begin to receive funding during the next quarter.

Staff are working to gather information on more than forty international stock managers that provide fully active products (active country and active stock). These firms include all organizations that have been recommended as candidates by Board members, IAC members or the SBI's consultants to date.

Managers will be reviewed using the same process that has been employed for the domestic stock and bond manager searches. This means that staff will work with the Asset Allocation Committee to narrow the list to ten (10) candidates by the June 1993 SBI/IAC meetings. A search committee will then interview those firms and recommend one or more firms to the Board at the September 1993 meeting.

ATTACHMENT A

CURRENT OBJECTIVES Basic Retirement Funds	PROPOSED OBJECTIVES Basic, Post or Combined (as noted)
<p><i>Provide Real Return</i></p> <p>Provide real returns that are 3-5 percentage points greater than the rate of inflation over moving 10 year periods.</p>	<p><i>Provide Real Return</i></p> <p>Use same objective for <i>Combined Funds</i>.</p>
<p><i>Exceed Median Fund</i></p> <p>Outperform the median fund from a universe of public and private funds with a balanced asset mix, excluding alternative investments, over moving 5 year periods.</p>	<p><i>Exceed Median Fund</i></p> <p>Modify for <i>Combined Funds</i> as follows: Outperform the median fund from a universe of public and private funds with a balanced asset mix over moving 5 year periods.</p>
<p><i>Exceed Composite Market Index</i></p> <p>Outperform a composite index weighted in a manner that reflects the long term asset allocation of the Basic Funds over moving 5 year periods</p>	<p><i>Exceed Composite Market Index</i></p> <p><i>Basic Funds:</i> Outperform a composite index weighted in a manner that reflects the long term asset allocation of the Basic Funds over moving 5 year periods.</p> <p><i>Post Fund:</i> Outperform a composite index weighted in a manner that reflects the long term asset allocation of the Post Fund over moving 5 year periods.</p> <p><i>Combined Funds:</i> Outperform a composite index weighted in a manner that reflects the actual asset mix of the Combined Funds over moving 5 year periods.*</p>

**The composite index for the Combined Funds will need to be changed each month to reflect the changes in market value in each of the funds. The SBI does not establish long term asset allocation targets for the Combined Funds.*

ATTACHMENT B
MEDIAN ASSET ALLOCATION
Trust Universe Comparison Service (TUCS)

All Funds

	Sep. 1988	Sep. 1989	Sep. 1990	Sep. 1991	Sep. 1992
Equities	48%	49%	48%	55%	57%
Fixed Income	33	40	41	39	37
Cash Equivalents	10	9	8	6	5

Public Funds Only

	Sep. 1988	Sep. 1989	Sep. 1990	Sep. 1991	Sep. 1992
Equities	43%	47%	47%	48%	51%
Fixed Income	43	42	41	43	40
Cash Equivalents	9	9	8	7	5

ASSET ALLOCATION TARGETS

	Basic Funds	Post Fund	Combined Funds*
Domestic Stock	50	50	50.0
International Stock	10	--	5.5
Alternative Assets	15	--	8.3
Domestic Bonds	24	47	34.3
Cash Equivalents	1	3	1.9
Total	100%	100%	100.0%

* based on combined market values of Basic and Post Funds as of 1/31/93

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**ATTACHMENT C
RETURN OBJECTIVES REPORT
COMMITTEE'S PROPOSED FORMAT
Period Ending xx/xx/xx**

Objective	Basic Funds \$xx.x Billion	Post Fund \$xx.x Billion	Combined Funds \$xx.x Billion
<p><i>Real Return</i></p> <p>Provide returns that are 3-5 percentage points greater than inflation over moving 10 year periods.</p>	<p>Inflation: xx.x%</p> <p>Basics: xx.x%</p>	<p>Not applicable until 2003</p>	<p>Not applicable until 2003</p>
<p><i>Median Fund</i></p> <p>Exceed the return of the median fund over moving 5 year periods.</p>	<p>Median: xx.x%</p> <p>Basics: xx.x%</p>	<p>Not applicable until 1998.</p>	<p>Not applicable until 1998.</p>
<p><i>Market Index Composite</i></p> <p>Exceed the return of a composite of market indices that reflects the long term asset allocation of the funds over moving 5 year periods.*</p>	<p>Composite: xx.x%</p> <p>Basics: xx.x%</p>	<p>Not applicable until 1998.</p>	<p>Not applicable until 1998.</p>

*The composite index for the Combined Funds is changed each month to reflect the actual asset mix in each of the funds. The SBI does not establish long term asset allocation targets for the Combined Funds.

Tab F

COMMITTEE REPORT

DATE: March 2, 1993

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

FROM: **Stock and Bond Manager Committee**

The Stock and Bond Manager Committee met on February 23, 1993 to review the following agenda items:

- Review of manager performance
- In-depth review of GeoCapital
- Review of performance based fee formula for domestic stock managers
- Recommendations concerning manager allocations
- Recommendation concerning contract periods for stock and bond managers

Several of the items require action by the SBI.

INFORMATION ITEMS:

1. Review of manager performance

Stock Managers

For the quarter ended December 31, 1992, the Basic Funds' domestic equity program outperformed its aggregate benchmark and the Wilshire 5000 Adjusted (Equity Program 8.0%; Aggregate Benchmark 7.8%; Wilshire 5000 Adjusted 7.5%). The current equity managers in the Basic Funds under performed their aggregate benchmark and the Wilshire 5000 Adjusted for the latest year (Equity Program 9.1%; Aggregate Benchmark 10.0%; Wilshire 5000 Adjusted 9.4%). For the latest five year period, the current equity managers outperformed their aggregate benchmark and the Wilshire 5000 Adjusted (Equity Program 15.9%; Aggregate Benchmark 15.4%; Wilshire 5000 Adjusted 15.6%).

The stock manager evaluation reports and investment commentaries start on page 41.

Bond Managers

For the quarter ending December 31, 1992, the Basic Funds' domestic bond program outperformed the Salomon BIG (0.6% vs. 0.3%). The current bond managers outperformed their benchmark for the last year (Bond Program 7.8% vs. Salomon BIG 7.6%) and the last five years (11.2% vs. 11.0%).

The bond manager evaluation reports and commentaries start on page 61

Staff also reported that the SBI's portfolio manager at Fidelity, Sharmin Mossavar-Rahmani, has resigned. Consistent with the guidelines established in the SBI's Manager Continuation Policy, staff recommended that the firm be placed on probation due to the organizational change

Given the large amount of additional assets that will be allocated to semi-passive bond management on July 1, 1993, the Committee intends to review both enhanced index managers (Fidelity and Lincoln) during the next quarter. If the Committee questions the ability of either firm to take on additional assets, the Stock and Bond Manager Committee believes a Search Committee should be authorized to seek additional or replacement managers. The Search Committee's work, if needed, should be completed before the June 1993 meeting of the SBI.

Staff and the Committee discussed possible candidates for semi-passive bond managers and identified the following firms.

- BlackRock Financial Management
- First Wisconsin Trust
- Mellon Bond Associates
- T Rowe Price
- Wells Fargo Nikko Investment Advisors

As more information is gathered, firms may be deleted from or added to the list.

RECOMMENDATION:

The Committee recommends that the SBI:

- **place Fidelity on probation as provided in the SBI's Manager Continuation Policy.**
- **direct the Stock and Bond Manager Committee to review the ability of Lincoln and Fidelity to take on additional assets effective July 1, 1993.**

- **authorize a Semi-Passive Bond Manager Search Committee to make recommendations regarding the retention of one or more managers if the Stock and Bond Manager Committee determines that either of the two current enhanced index managers should not manage additional assets. The candidates identified above should be considered for the search.**

2. In-depth review of GeoCapital

The SBI's Manager Continuation Policy requires that an in-depth review be conducted every three years for each active manager. This quarter, staff prepared an in-depth review of GeoCapital Corporation. This is the first in-depth review of GeoCapital who started to manage an account for the SBI in April 1990. A copy of the staff's full report is attached starting on page 11. A summary of staff's findings follows.

Qualitative

- GeoCapital has an experienced and stable investment staff. Irwin Lieber and Barry Fingerhut have been managing the SBI account since its inception. The only professional staff turnover that they have incurred has been relatively minor and did not affect the SBI account.
- The firm has consistently applied its investment approach. The risk factor and sector exposures of the historical portfolios confirm this consistency as well.
- GeoCapital's assets have grown at a moderate pace since the inception of the account. The number of individual accounts has remained stable.
- GeoCapital has a benchmark construction process which provides an appropriate benchmark for evaluation purposes.

Quantitative

- GeoCapital has provided annualized returns of 19.53% versus 16.03% annualized for its benchmark since the inception of the account.
- GeoCapital has provided positive value added (3.5% annualized), from both its stock and sector selection since the inception of the account.

Staff concludes that GeoCapital Corporation should continue to be retained as an active equity manager for the SBI. Upon review, the Committee concurs with the staff's conclusions regarding GeoCapital.

3. Review of performance based fee formula

The SBI has a performance base fee policy for its active domestic equity managers. The current formula uses the manager's one and three year annualized rates of returns and average assets under management to calculate the performance base fee. The current formula is in line with the most widely accepted approach to performance base fees within the financial community. However, there are some disadvantages in using the current formula:

- 1) Using one and three year rolling returns ignores what the manager accomplished prior to that time period. Therefore, the relationship between what the manager earns in fees relative to its performance since the inception of the account can be distorted.
- 2) The return based performance fee structure can cause distortions when cash flows occur at times other than the beginning of the measurement period.
- 3) The calculation is not very intuitive. It is difficult to understand how the combination of the manager's excess rate of returns and assets under management generate the performance based fee paid to the manager.

Staff proposed a new performance based fee formula that calculates the manager's ability to add value in terms of dollars rather than rates of return. To calculate the fee, the new formula would compare the manager's actual portfolio value to the dollar value of the manager's benchmark portfolio. If the manager's actual portfolio generates a larger dollar amount than the benchmark portfolio, the manager will receive a portion of the value added in addition to their base fee. If the manager under performs, the manager's share will be subtracted from its base fee payment. Both the positive and negative performance fees will have a cap equal to no greater than the manager's base fee for the year. A copy of the staff's full proposal is attached starting on page 31.

Upon review, the Committee approved the proposed performance based fee formula. The Committee concurred that the proposed formula provides a more fair and equitable methodology and resolved the deficiencies of the current formula.

RECOMMENDATION:

The Committee recommends that the SBI adopt the revisions to the performance based fee formula for domestic active stock managers as outlined in the attached paper.

4. Recommendations concerning manager allocations

Staff updated the Committee on the recommendations of the Manager Search Committee regarding active domestic stock and bond managers as well as new international active/passive stock managers. The Search Committee made retention recommendations without specific dollar amounts and referred the associated allocation issues to the Stock and Bond Manager Committee.

Domestic Stock and Bond Managers

Allocations to the new managers, along with additional allocations to several of the firms in the current stock and bond manager groups will be necessary to absorb the asset transfers created by the revised asset allocation in the Post Retirement Fund. When the new allocations are implemented, the Basic and Post Funds will share the same external active and passive domestic stock managers.

Staff proposed allocation ranges for the managers effective July 1, 1993. The proposals would result in approximately 50% active and 50% passive management in each segment. (SBI policy is that at least 50% of the stock and bond segments will be passively managed.) After discussion, the Committee concurred with the following allocation framework. More detail is shown in **Attachments A and B**.

The **active stock manager** allocations were divided into three groups:

- **Group I.** The current active manager with the strongest track record (Alliance) will receive 7.0-7.5% of the assets. This is at least twice the amount allocated to other firms.
- **Group II.** Six of the current active managers will receive 3.5-4.0% of the assets.
- **Group III.** The two current small stock managers, along with each of the new managers will receive 2.25-2.75% of the assets. (Following the Search Committee's recommendation, IAI Regional Fund will receive approximately one-half of the allocation provided to other managers in this group.)

The **active bond manager** allocations fell into four groups:

- **Group I.** The current active manager with the strongest record (Western) will receive 12-15% of the assets. This is approximately twice the weight given to other firms.
- **Group II.** Two current active managers will each receive 5-8% of the assets. Two of the new managers, Goldman and Standish, were also placed in this group based on the Search Committee's recommendation that they receive a higher allocation than other new managers.

- **Group III.** One new active manager, BEA, will receive 4-6% of the assets. This is in keeping with the Search Committee's recommendation regarding Standish and Goldman, as referenced above.
- **Group IV.** TCW (mortgages) and IDS (government/corporate) will each receive 2-4% of the assets. When combined, this will be roughly equal to the allocation given to a single manager in Group II, above.

During the next quarter, staff will work with the managers and the custodian bank to prepare for the asset transfers on July 1, 1993. The Committee intends to review more definitive allocations at the June 1993 meetings.

International Active/Passive Managers

The Search Committee has recommended two (2) active country/passive stock managers. Staff and the Committee recommend that each firm receive \$100 million.

SBI policy is that at least 50% of the international stock segment will be actively managed. Assuming a total program of \$900 million, at least \$450 million will be managed in active country/passive stock or active country/active stock approaches.

Allocating \$200 million to the active/passive managers will leave sufficient assets to fund three (3) additional active managers at approximately \$100 million each. Under this scenario, the international stock segment would be comprised of six (6) managers: 1 passive, 2 active/passive, 3 fully active.

RECOMMENDATIONS:

The Committee recommends that the SBI:

- **adopt the domestic stock and bond manager allocation framework described above for the asset transfers that will occur on July 1, 1993. The Committee should review more definitive allocations prior to the June 1993 meeting.**
- **allocate \$100 million to each international active/passive manager retained by the Board for funding on or about April 1, 1993.**

5. Recommendation concerning contract periods

Currently, stock and bond managers have one year contracts. Due to the growing number of managers retained by the SBI, the purely administrative aspects of contract management are becoming quite cumbersome and time consuming. The Committee feels longer contract periods are justified.

Stock and bond managers are evaluated on a continuous basis by the SBI and IAC. Since state law requires that all contracts maintain a 30-day termination provision, the underlying contract period has little relevance to investment management or oversight.

RECOMMENDATION:

The Committee recommends that the SBI adopt three (3) year contract periods for all of its external stock and bond managers as a matter of administrative policy.

ATTACHMENT A

**DOMESTIC STOCK MANAGERS
PROPOSED ALLOCATION RANGES
July 1, 1993**

	12/31/92 Market Value (\$ Millions)	12/31/92 (%)	7/1/93 Approximate Range (\$ Millions)	7/1/93 (%)
<i>Group I</i>				
Alliance	\$647	11%	\$640-675	7.0-7.5%
<i>Group II</i>				
Forstmann	\$329	6%	\$300-340	3.5-4.0%
Franklin	189	3%	300-340	3.5-4.0%
IDS	215	4%	300-340	3.5-4.0%
Independence	209	4%	300-340	3.5-4.0%
Lynch & Mayer	205	4%	300-340	3.5-4.0%
Waddell & Reed	241	4%	300-340	3.5-4.0%
<i>Group III</i>				
GeoCapital	\$215	4%	\$200-240	2.25-2.75%
Lieber	184	3%	200-240	2.25-2.75%
Brinson	--		200-240	2.25-2.75%
IAI Regional*	--		100-120	less than 2.75%
Jundt	--		200-240	2.25-2.75%
Lincoln	--		200-240	2.25-2.75%
Oppenheimer	--		200-240	2.25-2.75%
Weiss Peck	--		200-240	2.25-2.75%
<i>Passive</i>				
Wilshire	\$3,300	57%	\$4,300-4,400	50-51%
<i>Total</i>			\$8,500	100%

* Will receive one half the allocation provided to other managers in this group

ATTACHMENT B

**DOMESTIC BOND MANAGERS
PROPOSED ALLOCATION RANGES
July 1, 1993**

	12/31/92 Market Value (\$ Millions)	12/31/92 (%)	7/1/93 Approx. Range (\$ Millions)	7/1/93 (%)
<i>Group I</i>				
Western	\$544	21%	\$800-950	12-15%
<i>Group II</i>				
Ark	\$132	5%	--	--
IAI	187	7%	\$300-500	5-8%
Miller	293	11%	300-500	5-8%
Goldman	--		300-500	5-8%
Standish	--		300-500	5-8%
<i>Group III</i>				
BEA	--		\$250-400	4-6%
<i>Group IV</i>				
IDS/Gov-Corp.	--		\$125-250	2-4%
TCW/Mortg.	--		125-250	2-4%
<i>Semi-Passive</i>				
Fidelity	\$762	29%	\$3,100-3,200*	50%
Lincoln	714	27%		
Total			\$6,300	100%

* To be allocated after review of existing managers and potential search for new managers.

**Detailed Review of
GeoCapital Asset Management
February 1992**

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I. Organizational Detail

A. Ownership

GeoCapital Corporation was founded in 1979 by Irwin Lieber. Barry Fingerhut joined the firm in 1981. The two previously had worked together as partners at First Manhattan Company. Lieber owns 60% of GeoCapital and Fingerhut owns 40%.

B. Professional Staff

Irwin Lieber and Barry Fingerhut are the portfolio managers for the SBI account. They have co-managed the account since inception. They have a staff of three analysts to assist in research.

GeoCapital has lost one investment professional since the firm's inception. This individual was working as an analyst and portfolio manager for private accounts. Her departure in May 1991 had no impact on the performance of the SBI portfolio.

C. Assets Under Management

As of December 31, 1992, GeoCapital had \$2.1 billion under management in 45 separate accounts. The SBI's market value was \$214 million. Table I shows the firm's historical asset growth since they have been managing funds for the SBI. The number of institutional accounts has remained stable since the inception of the account, in the range of 40-45.

*Table I
GeoCapital
Historical Assets
(\$ in millions)*

<u>Year End</u>	<u>Market Value</u>
1990	\$ 1,020.7
1991	1,943.5
1992	2,122.4

The firm has no stated policy regarding its growth plan. Although they are not closed for business, they are not actively marketing for new accounts. They have only added a few small accounts since 1990.

II. Investment Approach

A. Investment Philosophy

GeoCapital invests primarily in small capitalization equities with the intent to hold them as they grow into medium and large capitalization companies. Most of GeoCapital's investments fall into two categories: growth/technology or special situations. The growth/technology investments involve the creation, commercialization and marketing of new technology. Special situations involve investing in companies where the stock price is undervalued relative to the firm's assets.

GeoCapital believes the combination of growth/technology and special situation investments into a single portfolio significantly reduces the short-term volatility associated with smaller cap stocks without sacrificing their superior long-term return potential

B. Investment Process

Investment ideas are developed using both a top down and a bottom up approach. While each approach is used in both investment methods, the macro approach (top down) is usually more applicable to the growth/technology area and the bottom up approach is more appropriate to special situations.

In the **growth/technology** area, market sectors or niches that are expected to have above average growth, relative to the U.S. economy, and/or appreciation and limited competition are identified. Individual companies within those sectors or niches are then analyzed to determine which are suitable for investment.

The following are characteristics which GeoCapital seeks in its growth/technology holdings:

- Above average growth prospects
- Superior management
- Conservative accounting practices
- Financial stability
- Unique or innovative products or services
- Good product development program or a focus on the purchase and distribution of products
- Positive cash flow
- Limited competition

In this area, investments occasionally are made in initial public offerings. Many of these ideas come from the firm's involvement in the venture capital area. This involvement not only provides advance knowledge about small, attractive companies that are going public, but also early knowledge about new technology that may impact existing holdings.

In the **special situations area**, GeoCapital focuses its research effort on developing an intrinsic value for a company. Key factors used to develop the value are the corporate assets and free cash flow. They attempt to identify companies where the stock is selling substantially below its intrinsic value and where there is likely to be a positive change or catalyst in the company so that the stock price will appreciate to the intrinsic value.

The following are characteristics that GeoCapital seeks in its special situations holdings:

- Significant free cash flow
- Minimum required levels of capital spending
- Temporarily out of favor with Wall Street
- Large ownership positions by management or individuals or small private investor groups
- Underutilized and/or undervalued assets

The bulk of GeoCapital's investment research is generated internally. All new investment ideas are reviewed jointly by the principals of the firm and no investments are made without their independent analysis.

New investment ideas are generated through many sources. These sources include research ideas from the portfolio managers, contacts with management, meetings with analysts and trade groups, contacts within the investment and brokerage community, and from published sources including newspapers, trade journals, proxy statements, annual reports and SEC filings.

Portfolio Structure

Although there is no pre-set mix of growth/technology and special situation holdings in client portfolios, GeoCapital generally invests at least 30% of a portfolio in each area. The mix changes over time, primarily depending on the economic environment and availability of attractive investment opportunities in each area. Currently the portfolio has approximately 50% of its holding in growth/technology and 50% in special situations. All portfolios have similar holdings.

Over 75% of GeoCapital's holdings had a market capitalization of less than \$500 million at the time they were initially purchased, and over 95% had a market capitalization of under \$1 billion. GeoCapital tends to be a long-term investor, and portfolios sometimes contain medium capitalization companies that were small cap companies at the time of purchase and have subsequently increased in value

Sell Criteria

GeoCapital will sell a security for the following reasons: 1) a buyout or some other form of restructuring occurs, 2) the price of a holding will rise to a level that GeoCapital considers to be fair or overpriced; or 3) the firm detects an unfavorable change in the fundamentals of the company. A decline of 20% in a stock always triggers review of the holding. In this situation, the firm may determine that the fundamentals are still strong and will add to the position rather than sell.

C. Prominent Characteristics

Exhibit 1 details GeoCapital's stock and cash holdings. Since the inception of the account, GeoCapital has held an average of 88 securities in the portfolio. The firm has had a high of 113 stocks and a low of 51. The number of securities in the portfolio has increased steadily since the inception of the account. This has been due primarily to the increased funding given to GeoCapital by its clients. The firm believes the current high is the upper limit that should be included in a portfolio and therefore anticipates that the number of securities in the portfolio will not increase any further.

GeoCapital generally holds a minimum amount of cash in the portfolio. As seen in Exhibit 1, the historical average has been 4.5%.

An analysis of GeoCapital's historical portfolios reveal a number of prominent risk characteristics and sector exposures. Exhibits 2 and 3 provide detailed information regarding the risk and sector exposures.

Risk Exposure Highlights

As seen in Exhibit 2, GeoCapital's portfolios tend to have a higher exposure to variability in markets, growth and trading, relative to the BARRA Hicap Universe. The exposure to variability in markets is the strongest.

The historical portfolios have had negative exposure to size, yield, and foreign income, with the negative exposure to size being the strongest.

Exhibit 3 shows that GeoCapital has overweightings in the consumer non-durable and financial sectors relative to the S&P 500. The firm's weighting in the consumer non-durable is quite strong.

GeoCapital has historically been underweighted relative to the S&P 500 in all other sectors, with the strongest underweightings in energy.

The risk factor and sector exposures are consistent with the firm's investment philosophy. A small cap growth bias is expected to have a strong exposure to the growth and variability in markets factors as well as negative exposure to size, yield and foreign income. The sector exposures of the portfolio are also consistent with GeoCapital's stated areas of emphasis.

III. Benchmark Analysis

A. Benchmark Construction Process

GeoCapital's benchmark has been constructed by a consultant since September 1991. Prior to that time, GeoCapital used a benchmark constructed by one of its clients. The revised benchmark corrected some of the deficiencies in the old benchmark, such as low coverage and poor residual correlations (described in greater detail later in the report).

The current construction process begins with a universe that consists of all publicly traded common stocks. This universe is adjusted as follows:

- No ADRs, REITs, MLPs, preferred stocks or investment funds.
- Traded on a U.S. national exchange or OTC market.
- Not in liquidation or bankruptcy.
- Market price greater than \$2 per share.
- Minimum market capitalization of \$27 million.
- Maximum market capitalization of \$11 billion.

Companies which are above \$1 billion are examined further. If, in the previous four years, the stock has had a market cap below \$1 billion, then it may be considered for the benchmark. Companies which are below \$55 million are handled similarly; if in the previous four years they had a market cap greater than \$55 million, they are eligible for inclusion in the benchmark.

Stocks in the following industries are excluded from consideration.

Liquor	Gold Mining
Cosmetics	Aluminum
Soaps	Forest Products
Tobacco	Steel
Auto Equipment	Machine Tools
Tire & Rubber	Air Freight
Toys	Electric Utilities
Containers	Real Estate

Stocks in the benchmark are weighted using a ramp weighting scheme linked to market capitalization deciles for the New York Stock Exchange (NYSE). This allows the benchmark's weighting parameters to float with market movements through time rather than stand rigidly. As seen in the table below, stocks with a market capitalization equivalent to the cutoff point of the second lowest NYSE decile receive a unit weight of 0.5. This unit weight value progresses linearly up to a value of 5.0 at the fourth decile cutoff, e.g. a security with a market capitalization at the decile 3 cutoff would receive a weighting of approximately 2.25. The assigned weight is a linear function between each pair of consecutive cutoff points. Anything greater than decile 6 receives a unit weight of 100. The table below lists the cutoff points, the assigned unit weights, and the market capitalization at those points as of November 1992.

<u>Cutoff</u>	<u>Unit Weight</u>	<u>Market Cap as of 11/92</u>
Decile 0	0.001	\$ 1 million
Decile 2	0.500	116 million
Decile 4	5.000	368 million
Decile 6 - 10	100.000	940 million

Within this weighting scheme, stocks which exhibit high characteristic values of success and growth and those in the technology area are given greater weight. This is to reflect the firm's investment emphasis on these factors in the benchmark. The greater weight is not dramatic, but is approximately 5% larger.

Another benchmark adjustment is made to the telecommunications and media industries. Since the historical actual portfolios had a strong representation in these industries, up to 20%, this needs to be reflected in the benchmark. To do so, these companies are weighted in aggregate at a predetermined percentage ranging from 2.5% to 20.0%, depending on the manager's opinion of the industries. They are now becoming a less

important part of the portfolio, so the level is currently at 10-12% of the portfolio

In no instance does any security's weight exceed 2.0% of the benchmark portfolio. The benchmark includes a 2% weight in cash

B. Benchmark Explanatory Power

The following evaluation of the benchmark is based on the time period of April 1990 through September 1992. Unless otherwise noted, this analysis is based on data combining both the old and new benchmark. The revised construction process became effective in September 1991, which is so recent that there is not enough data to make a meaningful evaluation of the new benchmark on its own.

Benchmark Risk Factor and Sector Exposure Profile

A valid benchmark should exhibit risk factor and sector exposures similar in direction and magnitude to average long term historical actual portfolio exposures

Exhibit 2 shows that the means of the actual portfolio risk factors are consistent with those of the benchmark. This indicates that the risk factor exposures for the benchmark are essentially the same as those of the actual historical portfolios

Exhibit 3 shows that the GeoCapital actual portfolio sector exposures vary somewhat from the benchmark sector exposures. The actual portfolio weight less the benchmark weight should be minimal over the long term. The current variance between actual and benchmark is likely due to sector bets that the firm has made in the past three years. Over a longer period, staff expects these sector differences to decrease

Benchmark Coverage, Active Positions and Turnover

GeoCapital's benchmark coverage, turnover and active position statistics are as follows

Table II

**GeoCapital
Benchmark Statistics
4/90 to 9/92**

	Benchmark Coverage	Positive Active Positions	Semi-Annual Benchmark Turnover
Average	63.13%	99.48%	16.38%
Maximum	90.41	100.00	17.45
Minimum	34.79	97.90	14.48

Benchmark coverage measures the percentage of securities held in the actual portfolio which also are contained in the benchmark portfolio. If a benchmark truly captures the securities on which the manager has an opinion, it will have a high coverage ratio. Coverage ratios vary according to the level of discipline exhibited in a manager's definition and implementation of its investment process. A valid benchmark should produce a coverage ratio of 80-90%. As seen in Table II, GeoCapital's average benchmark coverage ratio is 63.1%, since inception. This is lower than one would expect from a good benchmark. This is an area which has been corrected with the revised benchmark. Since the implementation of the new benchmark, the benchmark coverage has averaged 87%, with the minimum coverage position being 84%.

An active position is the difference between the actual portfolio weight of a security less the corresponding benchmark weight of the same security. A good benchmark will generate positive active positions with very rare exceptions. The weighting of each holding in the active portfolio should exceed the corresponding weights assigned to the same securities in the benchmark because if a manager finds a particular stock attractive, he will hold more than the benchmark position. Conversely, if a manager feels a security is unattractive, he will not hold the security at all. As seen in the above table, the percentage of positions in GeoCapital's portfolio which are positive is nearly 100%. This has been characteristic of the benchmark both before and after the change in the construction process.

Benchmark turnover measures the proportion of the benchmark's market value allocated to purchases and reinvestment of income during a periodic rebalancing. A valid and investable benchmark should experience reasonable levels of turnover. Semi-annual turnover in the 30%-40% range is consistent with a passive investment in the benchmark. The GeoCapital benchmark experiences semi-annual turnover of 16%, which is fairly low.

The turnover and active position data on GeoCapital are within the acceptable guidelines for benchmarks, indicating that the GeoCapital benchmark represents a valid and investable benchmark. Prior to implementation of the new benchmark, the coverage was below the standard that staff expects. From preliminary data, it appears that the new construction process corrects this.

Benchmark Explanatory Power

Active risk is a useful measure in determining explanatory power of a customized benchmark. It is the variability (standard deviation) of the manager's active return (active portfolio return less benchmark return). Since a customized benchmark is constructed to capture a manager's investment style, a good benchmark should produce lower active risk than using a market index as the benchmark, all else equal. This indicates that the benchmark more effectively screens out random noise associated with factors unrelated to a manager's investment style. This lower active risk will produce a higher information ratio (IR) than a market index. An IR is calculated by dividing the Value of Active Management (VAM or active return) by the active risk. Table III summarizes the active risk analysis of GeoCapital's actual returns relative to their benchmark and the Wilshire 5000.

Table III

*GeoCapital
Active Risk Analysis
4/90 to 9/92*

	Actual vs. <u>Benchmark</u>	Actual vs. <u>W5000</u>
Cumulative Annualized VAM	4.36%	2.14%
Annualized Standard Deviation of VAM (Active Risk)	8.15	15.27
Information Ratio	0.53	0.14
Information Ratio T-statistic	0.83	0.22
Percentage of months VAM > 0	48.5%	48.5%

The GeoCapital customized benchmark exhibits significantly lower active risk compared to using the Wilshire 5000 as a benchmark (8.15 versus 15.27). Although the active risk is lower, the analysis still does not produce a statistically significant t-statistic for the IR (0.87). This indicates that the analysis cannot confirm at a reasonable confidence level whether or not the manager can add value relative to its benchmark. However, the lower active risk does indicate that GeoCapital's benchmark is a better benchmark than the market (Wilshire 5000).

The explanatory power of a manager's benchmark can also be evaluated by looking at the correlation between three residual return series: the manager's actual returns versus those of the market (EXM), the benchmark returns versus those of the market (MFT) and the actual portfolio returns versus those of the benchmark (VAM).

A good benchmark should exhibit significantly positive correlation between EXM and MFT because when the manager's benchmark, or investment style, performs well relative to the market, the actual portfolio should also do well relative to the market.

If a manager's investment style is accurately reflected in the benchmark, the manager's ability to add value relative to the benchmark should not be affected by the performance of its investment style relative to the market. Therefore, the correlation between MFT and VAM should be essentially zero over time. Table IV contains the correlation analysis for GeoCapital's benchmark.

Table IV

*GeoCapital Portfolio Associates
Residual Correlation Matrix
4/90 to 9/92*

	<u>EXM</u>	<u>MFT</u>	<u>VAM</u>
Portfolio vs Market (EXM)	1.00		
Benchmark vs Market (MFT)	0.887	1.00	
Portfolio vs Benchmark (VAM)	0.844	0.500	1.00

The GeoCapital customized benchmark exhibits high correlation between the EXM and MFT residual data series (0.887). A good benchmark will have an EXM/MFT correlation greater than 0.60. The correlation between MFT and VAM is 0.50. A good benchmark will have an MFT/VAM correlation of close to 0. Staff feels that GeoCapital's benchmark needs to be monitored with respect to its MFT/VAM correlation. This correlation for the new benchmark is 0.34. Initially, it appears that the revised benchmark has improved the MFT/VAM correlation. Given more time, staff will be able to determine with more confidence if the new benchmark has truly corrected this problem.

The above characteristics of the historical GeoCapital benchmark indicate that the customized benchmark provides a better measure by which to evaluate the manager than does the market. The benchmark statistics meet staff's standards with two exceptions: coverage and the MFT/VAM correlation. However, these exceptions are a minor concern to staff since the statistics reflect the performance of the old and new benchmark combined. The old benchmark produced poorer results for both statistics relative to the revised benchmark, which skewed the results reported in the above tables. Staff believes that the revised benchmark appears to have

corrected these faults, although at this time there is not enough data to confirm this.

IV. Performance Analysis

The following conclusions can be made regarding GeoCapital's performance

1. The GeoCapital benchmark provides a better basis from which to evaluate performance than does a broad market average. Therefore, conclusions drawn from analysis using the benchmark as a base are more reliable than those drawn from a broad market average.
2. As seen in Exhibit 4, GeoCapital has provided actual annualized returns of 19.53% versus 16.03% annualized for the benchmark. The actual portfolio has outperformed the benchmark 16 out of 33 months. The VAM graph in Exhibit 5 shows that GeoCapital has provided value added of 3.5% annualized since the inception of the account.
3. Since the inception of the account through December 1992, GeoCapital has generated most of its value added through stock and sector selection. Trading and other provided negative value added.

The financial, energy and consumer non-durables sectors provided the most value added. These are the sectors in which GeoCapital has made the biggest bets. The two sectors which provided negative value added were consumer durables and miscellaneous. (See Exhibit 6 for more detail)

V. Summary of Board/IAC Actions to Date

At the March 1990 Board meeting, the Board approved hiring GeoCapital. The firm received initial funding of \$40 million in April 1990. The firm has received subsequent funding as follows:

<i>Date</i>	<i>Amount</i>
May 1990	\$20.0 million
July 1990	0.6 million
November 1990	10.0 million
December 1990	20.0 million
February 1991	10.0 million
August 1991	20.0 million
February 1992	15.0 million

VI. Conclusion

Comparing the performance of GeoCapital against the guidelines set forth in the Board's Manager Continuation Policy, it can be concluded that GeoCapital meets the SBI's expectations, both qualitatively and quantitatively

Qualitative

- GeoCapital has an experienced and stable investment staff. Irwin Lieber and Barry Fingerhut have been managing the SBI account since its inception. The only professional staff turnover that they have incurred has been relatively minor, and did not affect the SBI account.
- The firm has consistently applied its investment approach. The risk factor and sector exposures of the historical portfolios confirm this consistency as well.
- GeoCapital's assets have grown at a moderate pace since the inception of the account. The number of individual accounts has remained stable.
- GeoCapital has a benchmark construction process which provides an appropriate benchmark for evaluation purposes.

Quantitative

- GeoCapital has provided annualized returns of 19.53% versus 16.03% annualized for its benchmark since the inception of the account. This value added is positive and is within the confidence intervals on the VAM graph (Exhibit 5).
- GeoCapital has provided positive value added (3.5% annualized), primarily from its stock and sector selection since the inception of the account.

Staff has no concerns regarding the performance of GeoCapital to date. However, staff will continue to monitor the benchmark results going forward, to ensure that the quality exhibited to date is maintained.

Staff believes GeoCapital's capacity with regard to assets under management is limited. At this time it is not a problem. However, if GeoCapital were to experience a significant increase in assets, staff would become concerned about the firm's ability to consistently apply its investment style.

Staff recommends that GeoCapital continue to be retained as a domestic equity manager for the SBI.

Exhibit 1
GeoCapital
Portfolio Characteristics
April 1990 - December 1992

<u>Date</u>	<u>Percent in Cash</u>	<u>Number of Stocks</u>
Apr-90	9.22	51
May-90	24.31	52
Jun-90	14.70	59
Jul-90	7.48	62
Aug-90	2.75	65
Sep-90	2.37	66
Oct-90	4.60	66
Nov-90	4.66	72
Dec-90	4.20	79
Jan-91	0.71	79
Feb-91	6.69	81
Mar-91	4.31	83
Apr-91	4.23	83
May-91	2.22	86
Jun-91	1.50	90
Jul-91	1.19	92
Aug-91	8.88	99
Sep-91	6.13	100
Oct-91	3.76	102
Nov-91	1.49	106
Dec-91	0.39	104
Jan-92	2.00	106
Feb-92	2.72	108
Mar-92	1.14	109
Apr-92	1.04	111
May-92	1.21	111
Jun-92	0.82	113
Jul-92	0.67	116
Aug-92	0.40	116
Sep-92	6.39	91
Oct-92	6.75	90
Nov-92	6.09	90
Dec-92	4.85	na
Average	4.54	88.69
Maximum	24.31	116.00
Minimum	0.39	51.00
Std. Dev.	4.77	19.41

Exhibit 2
Risk Analysis Summary
GeoCapital Corporation

		Var.							Earn.	Fin.	For.	Labor	
		Mkts	Scs	Size	Trade	Gro.	E/P	B/P	Var.	Lev.	Inc.	Int.	Yield
1990	Q1	0.90	-0.41	-2.14	0.57	1.06	-0.72	-0.46	0.56	0.70	-0.43	0.52	-0.98
	Q2	1.00	-0.24	-2.21	0.55	0.97	-0.61	-0.38	0.53	0.46	-0.40	0.50	-0.91
	Q3	1.03	-0.58	-2.33	0.62	0.99	-0.47	-0.19	0.54	0.40	-0.48	0.48	-0.85
	Q4	1.17	-0.13	-2.20	0.72	1.05	-0.46	-0.23	0.53	0.31	-0.56	0.42	-0.93
1991	Q1	1.22	0.34	-2.18	0.80	1.07	-0.51	-0.34	0.49	0.20	-0.65	0.45	-0.96
	Q2	1.28	0.16	-2.16	0.77	1.08	-0.47	-0.34	0.54	0.18	-0.65	0.49	-0.97
	Q3	1.38	0.86	-2.15	0.73	1.10	-0.47	-0.38	0.47	0.09	-0.68	0.52	-1.01
	Q4	1.30	0.73	-2.12	0.86	1.13	-0.48	-0.38	0.46	-0.01	-0.69	0.54	-0.99
1992	Q1	1.19	0.33	-2.16	0.77	1.12	-0.42	-0.40	0.44	0.06	-0.66	0.47	-1.00
	Q2	1.26	0.40	-2.21	0.80	1.12	-0.35	-0.30	0.43	-0.03	-0.70	0.51	-0.99
	Q3	1.25	0.39	-2.18	0.83	1.11	-0.30	-0.27	0.46	0.15	-0.70	0.41	-1.00
	Q4	1.16	0.40	-2.14	0.91	1.04	-0.41	-0.31	0.47	0.06	-0.67	0.46	-0.97
	Mean	1.18	0.19	-2.18	0.74	1.07	-0.47	-0.33	0.50	0.21	-0.61	0.48	-0.96
	Maximum	1.38	0.86	-2.12	0.91	1.13	-0.30	-0.19	0.56	0.70	-0.40	0.54	-0.85
	Minimum	0.90	-0.58	-2.33	0.55	0.97	-0.72	-0.46	0.43	-0.03	-0.70	0.41	-1.01
	Std Dev	0.14	0.44	0.05	0.11	0.05	0.11	0.08	0.04	0.22	0.11	0.04	0.05
	Bmk Mean	1.24	0.43	-2.17	0.83	1.10	-0.37	-0.30	0.48	0.19	-0.62	0.48	-0.96

Exhibit 3

**GeoCapital
Sector Weights
April 1990 to November 1992**

Actual Portfolio Weight Less Benchmark Weight

	<i>Cons. Non-Dur</i>	<i>Cons. Dur.</i>	<i>Basic Mater.</i>	<i>Cap. Goods</i>	<i>Energy</i>	<i>Tech.</i>	<i>Trans.</i>	<i>Util.</i>	<i>Finan.</i>
Average	9.57	-1.98	-1.75	-4.53	-4.80	-9.96	-2.38	1.15	14.67
Maximum	17.91	-0.47	0.38	-0.36	-2.29	-7.75	-1.64	6.40	24.10
Minimum	0.82	-3.67	-4.69	-6.04	-6.45	-11.67	-3.07	-3.78	7.20
Benchmark Average	56.75	2.24	4.04	5.33	4.49	13.88	2.36	5.55	5.37

Actual Portfolio Weight Less S&P 500 Weight

Average	28.18	-3.55	-6.74	-5.21	-11.39	-2.36	-1.66	-6.96	9.69
Maximum	35.31	-2.81	-5.09	-0.88	-9.54	-0.25	-1.44	-3.57	20.14
Minimum	20.72	-4.52	-8.32	-6.49	-14.06	-4.21	-1.89	-11.57	0.73
S&P 500 Average	37.86	3.96	9.37	6.17	11.19	6.25	1.75	13.50	9.95

Exhibit 4
GeoCapital
Comparison of Actual Portfolio Performance with
Customized Benchmark and Wilshire 5000

	Actual	Benchmark	Wilshire 5000
1990 Q2	5.98	6.09	5.48
Q3	-30.07	-22.30	-15.21
Q4	25.81	10.77	8.73
	-6.76	-8.69	-2.76
1991 Q1	30.34	24.64	16.46
Q2	-3.94	-2.14	-0.32
Q3	17.88	10.25	6.35
Q4	16.71	12.01	8.70
	72.26	50.68	34.20
1992 Q1	-2.97	-0.95	-1.33
Q2	-9.37	-9.71	-0.12
Q3	-0.36	3.78	3.07
Q4	16.05	18.82	7.28
	1.69	9.43	8.97
Cumulative	63.32	50.51	42.20
Annualized	19.53	16.03	13.66

EXHIBIT 5.

VALUE OF ACTIVE MANAGEMENT REPORT

GEOCAPITAL CORP.

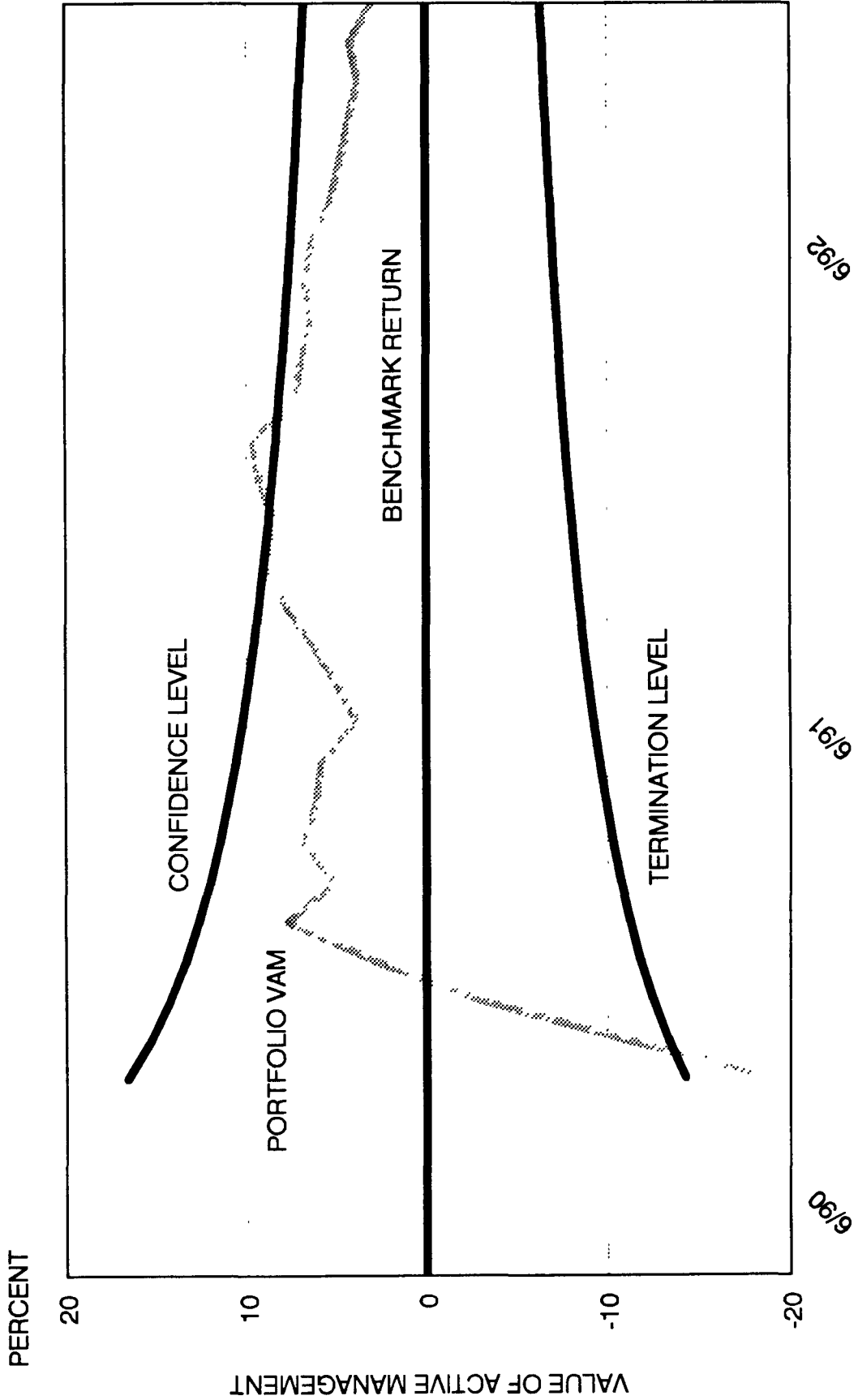


Exhibit 6

GeoCapital

Performance Attribution Analysis April 1990 through December 1992

Period	Cash	Sector	Stock	Trading & Other	Value Added
1991	0.53	3.32	8.64	1.30	14.32
1992	-0.63	3.60	-9.05	-0.80	-7.10
Cumulative	0.12	2.56	2.91	-2.05	3.50

Value Added By Sector April 1990 through December 1992

Cash	0.12
Consumer Non-Durables	1.01
Consumer Durables	-0.41
Basic Materials	0.51
Capital Goods	0.06
Energy	1.05
Technology	0.90
Transportation	0.18
Utilities	0.37
Financial	1.70
Miscellaneous	-0.01
Trading & Other	-2.05
Total	3.50

PERFORMANCE BASED FEES

Currently the Minnesota State Board of Investment uses performance based fees for its external domestic active stock managers. The existing formula, while adequate, has some deficiencies that concern staff. The following paper describes the rationale for having performance based fees, the current formula, and a proposal that resolves staffs concerns.

HISTORY

Performance Based Fee Rationale

In March 1986, the Board adopted a performance based fee policy for its active domestic equity managers. The rationale for implementing a performance based fee over the traditional flat fee structure centers around three principal arguments.

- 1) **Risk sharing.** Performance based fees provide for a more equitable relationship between a client and an external investment manager. Despite the best efforts of money managers, investment results are inherently uncertain. With flat fees, the client bears virtually all the risk of poor performance. With performance based fees, the external investment manager shares the risk of poor results with the client. Consequently, the client pays lower fees for inferior performance. Conversely, the external investment money manager receives additional fees for successful results.
- 2) **Focus.** Performance based fees provide a more focused relationship between a client and an external investment manager. The SBI uses a customized benchmark to represent the manager's particular investment style. With flat fees, the manager has less incentive to carefully consider the benchmark when constructing the client's portfolio. Performance based fees help to eliminate this problem by tying the manager's compensation to performance relative to the manager's benchmark. Therefore, performance based fees increase the manager's incentive to implement its stated investment process.
- 3) **Incentive.** Performance based fees offer more incentive to the external money manager to manage the client's portfolio as efficiently as possible. Under a flat fee system the manager will receive approximately the same management fee regardless of performance. Under performance based fees, a manager has a monetary incentive to focus on all aspects of the investment business that impact a client's portfolio. If the manager can eliminate even small inefficiencies in their investment process, the client will earn a higher rate of return, net of fees, and the manager will receive a larger management fee.

CURRENT PERFORMANCE BASED FEE STRUCTURE

General Description

The current policy uses a "symmetrical fulcrum" performance based fee. A symmetrical fulcrum establishes a base compensation for an external investment manager and a performance target against which additional compensation (positive or negative) will be determined. If the manager's return exceeds the target, an additional compensation above the base fee will be paid to the manager. If performance falls short of the target, the base fee will be reduced. As the name implies, the symmetrical fulcrum calculation causes the manager's total compensation to fluctuate symmetrically around an established target. Therefore, superior performance of a certain amount relative to the target produces additional payments to the manager equivalent to the amount withheld from the manager for the same deviation in performance below the target.

Current Formula

The current performance based fee calculation consists of two parts:

- 1) Base fee.
- 2) Performance fee.

The base fee portion uses the fee schedule negotiated in each external investment manager's contract. The base fee is paid in arrears at the end of each quarter based on the market value of the SBI assets allocated to that manager.

The performance fee is calculated and paid annually in arrears. The calculation is based on the manager's excess return (total actual return, net of fees, less the manager's benchmark return) and the average assets under management. The calculation converts the manager's share of the excess return into dollars by multiplying it by the manager's average portfolio value over the appropriate time frame.

The current performance fee structure combines two separate calculations. The calculation using the one year performance receives a 25% weight while the calculation based on the manager's three year performance receives a 75% weight. The manager will earn its base fee if it outperforms its benchmark, net of fees, by 1.5% over a one and three year time frame. The manager's maximum positive performance fee will double its base fee. The maximum negative performance will eliminate the base fee entirely. With the 1.5% "hurdle rate" the calculations equalize the manager fees so that they all achieve the maximum positive performance fee when they outperform the benchmark by 9.0% and the maximum negative fee occurs when they underperform the benchmark by 6.0% over both a one and three year time frame.

The current formula is described in more detail in Exhibit A.

WHY CHANGE

The type of performance base fee structure described above has the advantage of being the most widely accepted approach to performance fees within the financial community. However, there are some disadvantages in using the current structure.

- 1) Using one and three year rolling annualized returns ignores what the manager accomplished prior to that time period. Therefore, the relationship between what the manager earns in fees relative to its performance since the inception of the account can be distorted.
- 2) The return based performance fee structure can cause distortions when cash flows do not occur at the beginning of the measurement period. For example, if a manager generates all of its excess return in the first half of the measurement period but receives a contribution in the second half, the manager will earn a performance fee on that contribution as well.
- 3) The calculation is not very intuitive. It is difficult to explain how the combination of the manager's excess rate of returns and assets under management generated the performance based fee paid to the manager.
- 4) There is a fair amount of resistance among external investment managers to the idea that performance based fees could reduce their annual management fee significantly. In the case of the current formula, the manager's total compensation could go to zero. Some external investment managers are willing to accept performance based fees but feel that the current formula creates too much business risk. They feel that the potential wide variations in fee payments make it difficult to run their business because of the uncertainty of what their revenue will be each year.

DOLLAR MEASURE PERFORMANCE BASE FEES

General Description

Staff proposes that the SBI continue to use a symmetrical fulcrum structure but change its performance based fee calculation from one based on rates of return to a "dollar measure" approach. The dollar measure approach calculates the manager's ability to add value in terms of dollars rather than rates of return. To calculate the value added, the dollar measure approach compares the manager's actual portfolio value to the dollar value of the manager's benchmark portfolio. If the manager's actual portfolio generates a larger dollar amount than the benchmark portfolio, the manager will receive a portion of the value added in addition to their base fee. If the manager under performs, the manager's share will be subtracted from its base fee payment.

Proposed Dollar Measure Calculation

Staff's proposed dollar measure performance base fee calculation basically follows the general concept described above. Staff proposes that the dollar difference between the actual and benchmark portfolio be allocated in the following manner

- 1) The evaluation period will be one year. After each evaluation period the dollar value of the benchmark portfolio will be reset to equal the dollar value of the actual portfolio.
- 2) The manager will earn its base fee when it outperforms the benchmark portfolio by the equivalent of its base fee plus a 1.0% hurdle rate.
- 3) The dollar difference left after deducting the base fee and the 1% hurdle rate will be paid out over a five year period. (i.e. One fifth in each of the next five years.)
- 4) The client and the manager will share the net positive or negative value added on a 1 to 15 share ratio (e.g. If a net positive \$150,000 value added was generated, the client would keep \$140,000 and the manager would receive \$10,000.)
- 5) The manager may choose from four options on how much of their base fee they can earn/lose in any given year. The manager's performance based fee can be 100%, 75%, 50%, or 25% of their base fee for the year.
- 6) If the manager's potential performance fee (positive or negative) exceeds the maximum or minimum payment limits, the remaining amount will be carried over into the next year.

Once the manager has chosen one of the four options in #5 above, that option would remain in effect for as long as the SBI maintains an account with the manager. The base fee for each manager will use the fee schedule included in each manager's contract and will be paid quarterly, in arrears, based on the market value of the SBI assets allocated to the manager at the end of each quarter. The performance fee calculation will occur annually and will be paid in arrears.

To illustrate the proposed dollar measure calculation, Exhibit B shows an example covering the first five years. The example assumes that the manager chose the option where the performance fee can equal 50% of its base fee.

To start the new formula, a transition process needs to be developed to convert the existing investment managers from the current performance based fee procedure to the dollar measure approach. Under the current performance based fee calculation, the manager has an implied positive or negative carryover due to the rolling three year average. If the current calculation remained in place, the previous two years would have

some impact on the performance fee for the next two years. That implied carryover should be calculated and reflected in the starting amounts for the dollar measure calculation. The carryover can be calculated by assuming that the next two years actual and benchmark returns are the same and the current portfolio value remains constant. Therefore, the actual and benchmark starting values will be different reflecting the implied carryover of the current performance base fee calculation.

CONCLUSION

Staff recommends that the SBI performance based fee calculation be changed from a rate of return methodology to a dollar measure methodology. The dollar measure approach has several advantages over the current performance base fee calculation. First, the dollar measure approach resolves the problem of how to handle cash flows that occur during the measurement period. Since the calculation compares the dollar value of the actual portfolio to the dollar value of the benchmark, the problem can be solved by adjusting both accounts by the dollar value of the cash flow when it occurs.

Second, the proposed methodology incorporates the manager's total performance since inception rather than the rolling time periods used in the current formula. Using a performance fee calculation based on results since inception of the account provides the best correlation between the manager's value added performance and the performance fee that is paid. Any system that uses rolling time periods creates distortions because at a certain point, past years are eliminated.

Third, the dollar measure methodology is easier to understand because the calculation is based on the dollar growth of the actual portfolio compared to the dollar growth of the benchmark portfolio. The current calculation is more difficult to understand and communicate because the manager's performance fee is based on several excess rates of return and average assets under management.

Fourth, providing various options on how much of the managers base fee is at risk in any given year addresses the investment manager's concerns about business risk. The manager will obtain a lower performance fee if it chooses to guarantee receipt of a certain portion of its base fee.

EXHIBIT A

CURRENT PERFORMANCE BASE FEE FORMULA

The annual fee will be composed of two parts:

- A) The base fee
- B) The performance fee

A. BASE FEE

- The base fee will be paid quarterly, in arrears.
- The base fee will be calculated as a percentage of the market value of total SBI assets managed by the manager at the end of quarter.
- The annual base fee rate is the fee included in the contract between the manager and SBI.

B. PERFORMANCE FEE

- The performance fee will be paid annually, in arrears.
- The performance fee will be based upon the manager's total fund return relative to the manager's normal portfolio return.
- The performance fee rate will be computed according to the following formula (in basis points):

$$PF = [(RM - RN - 150) \times (BF/50)]/15$$

where:

PF = performance fee rate

RM = return on manager's portfolio, net of base fee payments

RN = return on normal portfolio

BF = base fee rate in the manager's contract x 100

EXHIBIT A (con't)

- Performance measurement period shall be one full twelve-month period.
- The maximum performance fee will be no more than the base fee paid in the most recent performance measurement period. The minimum performance fee will be no less than minus the base fee paid in the most recent performance measurement period
- Performance fees will be calculated by assigning a one-quarter weight to the most recent period's relative returns and a three-quarters weight to trailing three-period annualized relative returns
- In the first performance measurement period, 100% weight will be assigned to the most recent period's relative returns. The maximum performance fee will be no more than one-third the base fee paid in the most recent performance measurement period. The minimum performance fee will be no less than minus one-third the base fee paid in the most recent performance measurement period
- In the second performance measurement period, one-third weight will be assigned to the most recent period's relative returns and two-thirds weight to trailing two-period annualized relative returns. The maximum performance fee will be no more than two-thirds the base fee paid in the most recent performance measurement period. The minimum performance fee will be no less than minus two-thirds the base fee paid in the most recent performance measurement period
- The performance fee will be calculated against average quarterly asset values (at market) over the appropriate performance measurement periods
- The performance fee, if positive, will be added to the final quarterly base fee paid at the end of the most recent performance measurement period.
- The performance fee, if negative, will be offset against the final quarterly base fee paid at the end of the most recent performance measurement period and any outstanding performance fee balances must be paid in full within 60 days after said date.

EXHIBIT A (con't)

C. MISCELLANEOUS

- Manager portfolio and normal portfolio returns will be computed by organization(s) designated by the SBI.
- If this contract should be terminated prior to the end of a full performance measurement period, no performance fee will be paid or debited for that year.
- Further, in the event of such a termination, any and all outstanding performance fee balances must be paid in full within 60 days of the termination date.

EXHIBIT B

**PERFORMANCE BASE FEE
PROPOSED DOLLAR MEASURE EXAMPLE**

	Total Dollar Value Added*	Manager Share	Year 1	Year 2	Year 3	Year 4	Year 5
Period 1	\$7,500,000	\$500,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
Period 2	-11,250,000	-750,000	-0-	-150,000	-150,000	-150,000	-150,000
Period 3	30,000,000	2,000,000	-0-	-0-	400,000	400,000	400,000
Period 4	15,000,000	1,000,000	-0-	-0-	-0-	200,000	200,000
Period 5	-18,750,000	-1,250,000	-0-	-0-	-0-	-0-	-250,000
Total			<u>\$100,000</u>	<u>-\$50,000</u>	<u>\$350,000</u>	<u>\$550,000</u>	<u>\$300,000</u>
<i>Pervious Year Carryover</i>			-0-	-0-	-0-	-0-	\$100,000
Total Available			<u>\$100,000</u>	<u>-\$50,000</u>	<u>\$350,000</u>	<u>\$550,000</u>	<u>\$400,000</u>
Base Fee			\$800,000	\$750,000	\$850,000	\$900,000	\$850,000
<i>Option Limit</i>			50%	50%	50%	50%	50%
Potential Performance Fee			<u>\$400,000</u>	<u>\$375,000</u>	<u>\$425,000</u>	<u>\$450,000</u>	<u>\$425,000</u>
Actual Performance Fee			\$100,000	-\$50,000	\$350,000	\$450,000	\$400,000
Total Fee			<u>\$900,000</u>	<u>\$700,000</u>	<u>\$1,200,000</u>	<u>\$1,350,000</u>	<u>\$1,250,000</u>
New Carryover			-0-	-0-	-0-	\$100,000	-0-

* After deducting the dollar value of the 1% hurdle rate.

**STATE BOARD
OF INVESTMENT**

**Stock
Manager
Evaluation
Reports**

Fourth Quarter, 1992

DOMESTIC STOCK MANAGERS

Fourth Quarter 1992

Domestic 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 standards against which to judge the managers' performance.

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

Staff Recommendations:

Staff recommends the following actions concerning manager status:

- Conduct an in-depth review of Forstmann Leff.

Current Managers	Total Market Value 12/31/92 (Millions)	Quarter Ending 12/31/92		Year Ending 12/31/92		Annualized Five Years Ending 12/31/92		Annualized Since Inception***		% of Stock Segment 12/31/92 Basic Funds
		Actual	Bmrk	Actual	Bmrk	Actual	Bmrk	Actual	Bmrk	
Alliance	\$647	9.6%	10.0%	11.2%	8.5%	19.5%	15.0%	18.6%	12.8%	11.2%
Forstmann	329	12.3	7.9	4.0	10.6	12.3	13.5	13.4	12.2	5.7
Franklin	189	9.3	9.2	11.9	13.4			13.0	13.3	3.3
GeoCapital	215	16.1	18.8	1.7	9.4			19.5	16.0	3.7
IDS	253	10.1	8.3	11.5	14.6	14.6	15.2	15.2	14.5	4.4
Independence	209	7.2	5.7					12.3	11.5	3.6
Lieber & Co.	184	12.9	13.0	5.4	16.4	13.3	14.9	11.6	11.6	3.2
Lynch & Mayer	205	8.7	8.6					10.1	9.1	3.5
Waddell & Reed	241	9.4	9.9	14.8	12.5	13.3	13.4	12.1	11.4	4.2
Wilshire Assoc.	3,304	6.2	6.3	8.6	9.1	15.4	15.6	14.2	14.4	57.2
Current Aggregate*		8.0	7.8	9.1	10.0	15.9	15.4	14.7	14.2	100.0
Historical Aggregate**		8.0	7.8	8.9	10.0	15.3	15.4	14.0	14.2	
Wilshire 5000 Adjusted****		7.5		9.4		15.6		14.2		
Wilshire 5000		7.3		9.0		15.9		14.5		

* Includes performance of current managers only.

** Includes performance of terminated managers.

*** Time periods vary for each manager depending on date of retention.

**** Adjusted for liquor and tobacco restriction.

Notes: GeoCapital retained 4/90; Franklin, Rosenberg retained 4/89; Lynch & Mayer, Independence retained 2/92. Wilshire Assoc. began custom tilt phase-in in October 1990.

ALLIANCE CAPITAL MANAGEMENT

PORTFOLIO MANAGER: Jack Koltes

ASSETS UNDER MANAGEMENT: \$646,947,669

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.

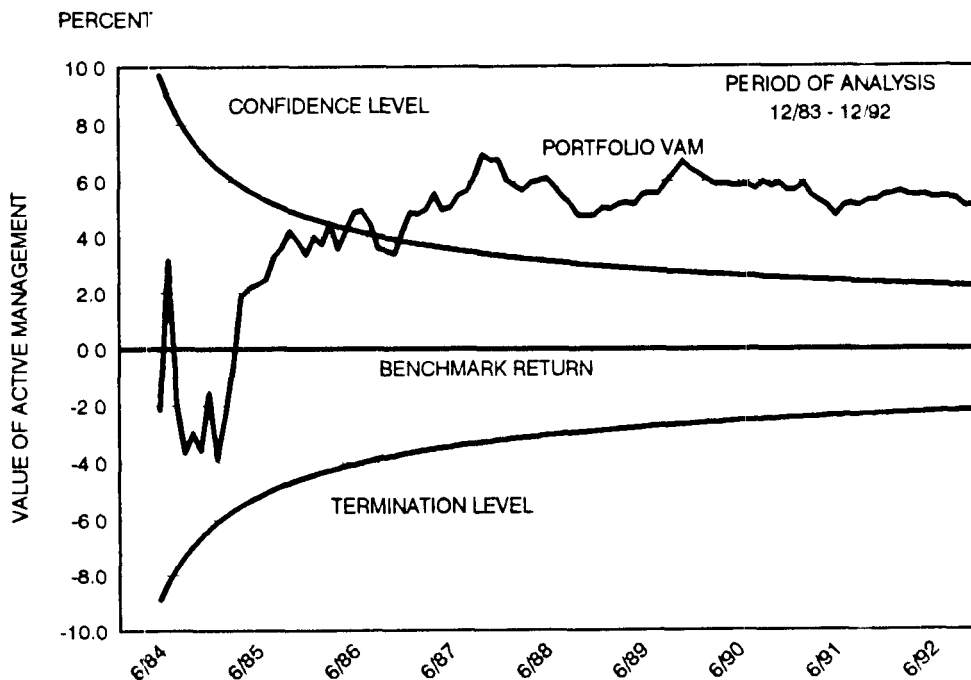
QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 1/1/84
Actual Return	9.6%	11.2%	19.5%	18.6%
Benchmark	10.0	8.5	15.0	12.8

STAFF RECOMMENDATIONS

No action required.

**VALUE OF ACTIVE MANAGEMENT REPORT
ALLIANCE CAPITAL MANAGEMENT**



FORSTMANN LEFF ASSOCIATES

PORTFOLIO MANAGER: Joel Leff

ASSETS UNDER MANAGEMENT: \$329,060,577

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.

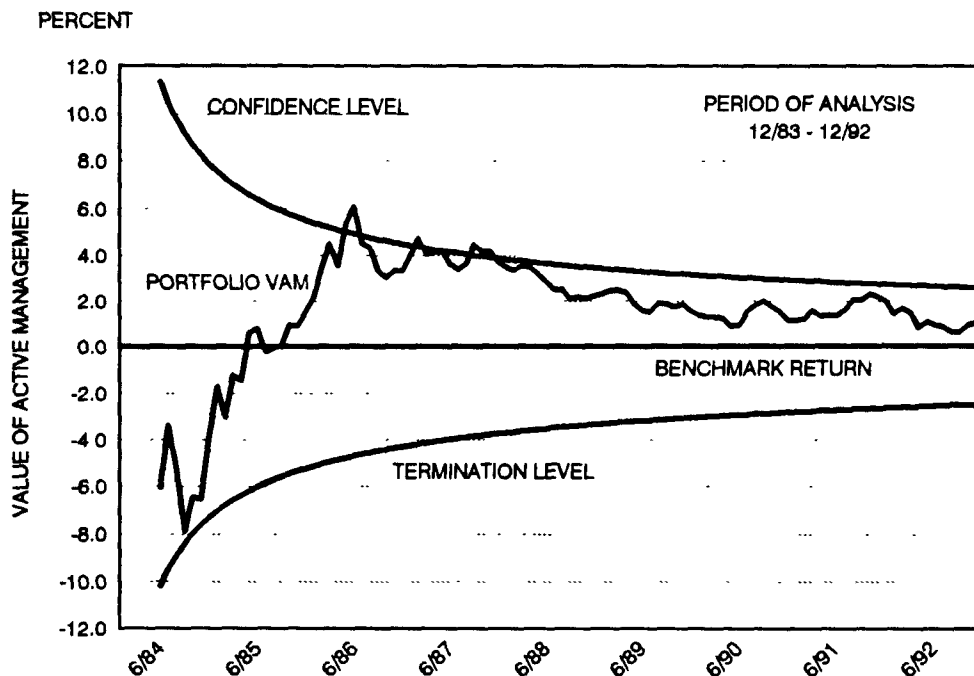
QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 1/1/84
Actual Return	12.3%	4.0%	12.3%	13.4%
Benchmark	7.9	10.6	13.5	12.2

STAFF RECOMMENDATIONS

Conduct an in-depth review of Forstmann Leff for the June 1993 Board meeting.

VALUE OF ACTIVE MANAGEMENT REPORT
FORSTMANN LEFF



FRANKLIN PORTFOLIO ASSOCIATES

PORTFOLIO MANAGER: John Nagorniak

ASSETS UNDER MANAGEMENT: \$189,183,224

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

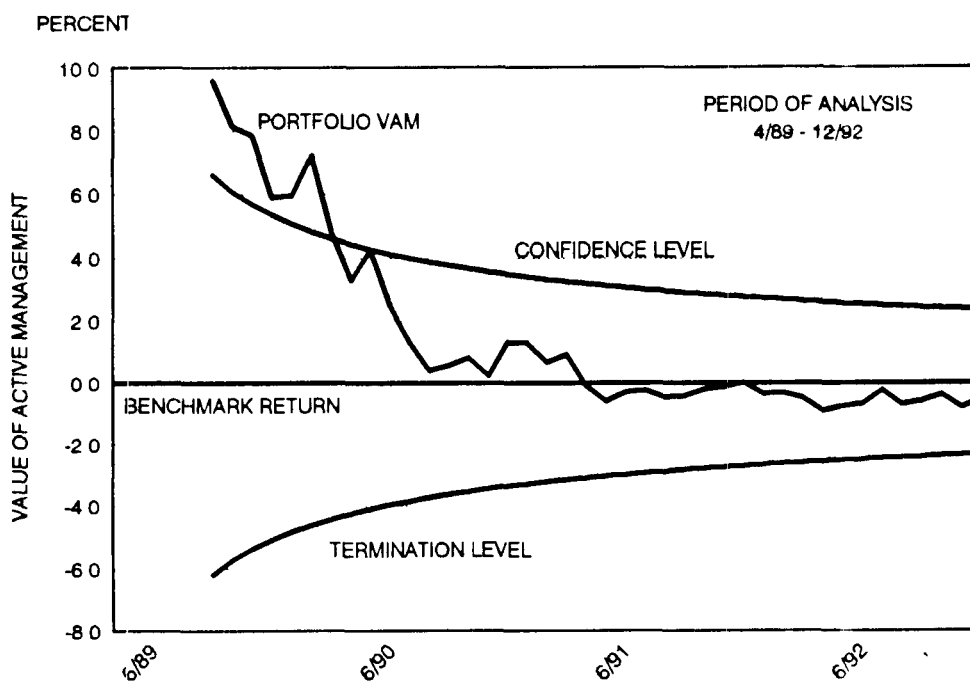
	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 4/1/89
Actual Return	9.3%	11.9%	N.A.	13.0%
Benchmark	9.2	13.4	N.A.	13.3

STAFF RECOMMENDATIONS

No action required.

VALUE OF ACTIVE MANAGEMENT REPORT

FRANKLIN PORTFOLIO ASSOCIATES



GEOCAPITAL CORP.

PORTFOLIO MANAGER: Barry Fingerhut

ASSETS UNDER MANAGEMENT: \$214,904,896

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

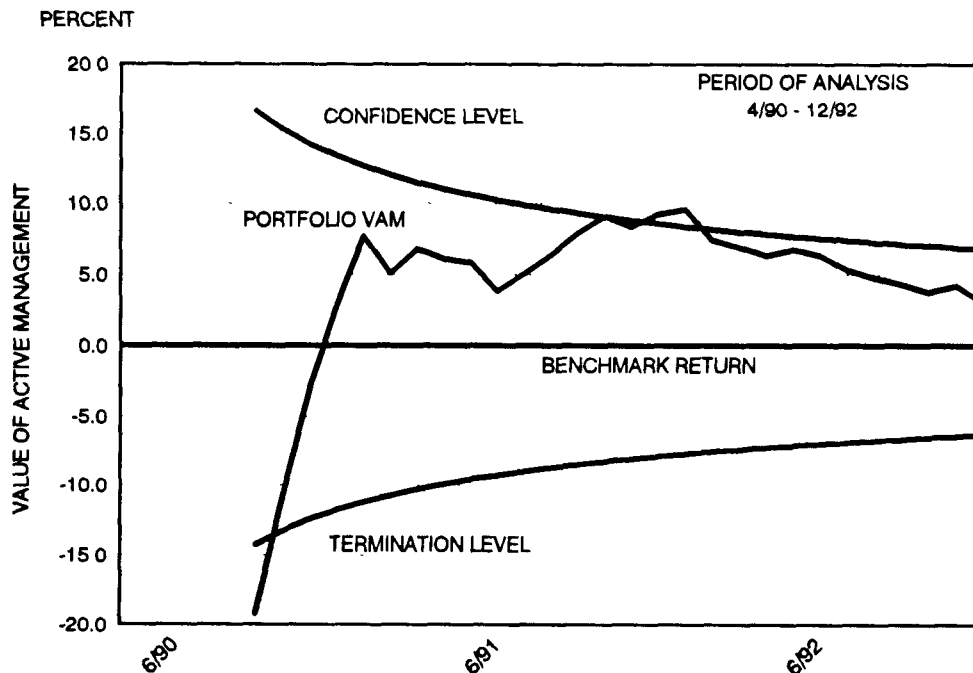
	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 4/1/90
Actual Return	16.1%	1.7%	N.A.	19.5%
Benchmark	18.8	9.4	N.A.	16.0

STAFF RECOMMENDATIONS

No action required.

VALUE OF ACTIVE MANAGEMENT REPORT

GEOCAPITAL CORP.



IDS ADVISORY

PORTFOLIO MANAGER: Pete Anderson

ASSETS UNDER MANAGEMENT: \$253,054,338

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:

- Manager is currently addressing specific benchmark issues.

Exceptional strengths are:

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

QUANTITATIVE EVALUATION

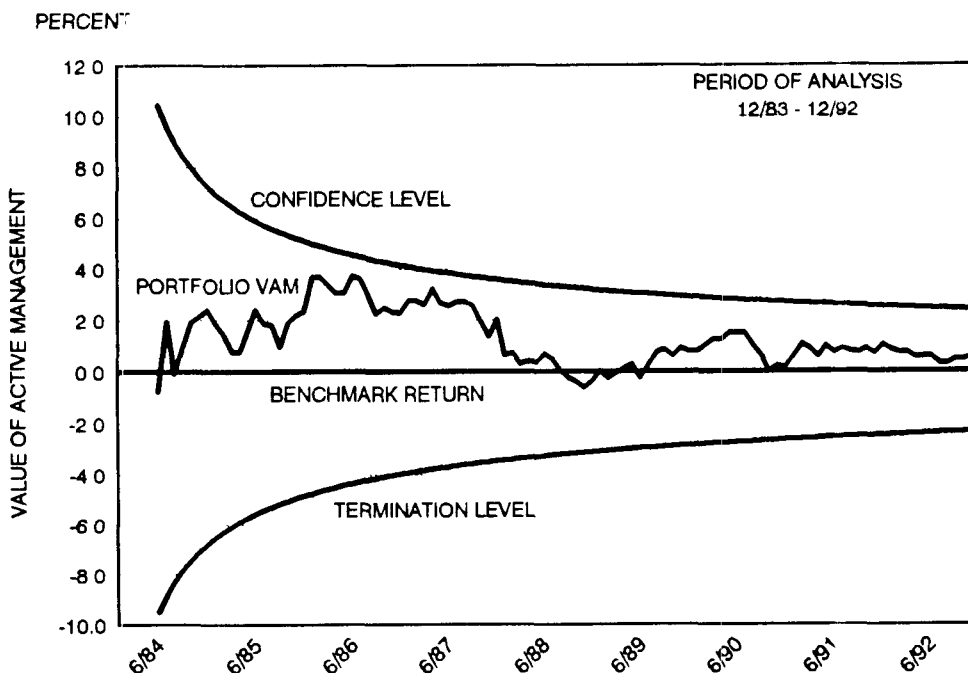
	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 1/1/84
Actual Return	10.1%	11.5%	14.6%	15.2%
Benchmark	8.3	14.6	15.2	14.5

STAFF RECOMMENDATIONS

Latest five year returns are below benchmark. Last in-depth review completed in March 1991.

VALUE OF ACTIVE MANAGEMENT REPORT

IDS ADVISORY



INDEPENDENCE ASSOCIATES

PORTFOLIO MANAGER: Bill Fletcher

ASSETS UNDER MANAGEMENT: \$209,383,295

INVESTMENT PHILOSOPHY

Independence believes that individual stocks which outperform the market always have two characteristics: 1) they are intrinsically cheap; and 2) their business is in the process of improving. Independence ranks their universe by using a multifactor model. Using input primarily generated by their internal analysts, the model ranks each stock based on 10 discreet criteria. Independence constricts their portfolio by using the top 60% of their ranked universe and optimizing it relative to the benchmark selected by the client to minimize the market and industry risks. Independence maintains a fully invested portfolio and rarely holds more than a 1% cash position.

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 2/1/92
Actual Return	7.2%	N.A.	N.A.	12.3%
Benchmark	5.7	N.A.	N.A.	11.5

STAFF RECOMMENDATIONS

No action required.

VAM graph will be created for period ending 9/30/93.

LIEBER & COMPANY

PORTFOLIO MANAGER: Stephen Lieber, Nola Falcone

ASSETS UNDER MANAGEMENT: \$184,012,510

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)

Exceptional strengths are:

- Organizational continuity and strong leadership.
- Attractive, unique investment approach.
- Extensive securities research process.

Current concerns are:

- Recent performance has lagged due to poor stock selection.

QUANTITATIVE EVALUATION

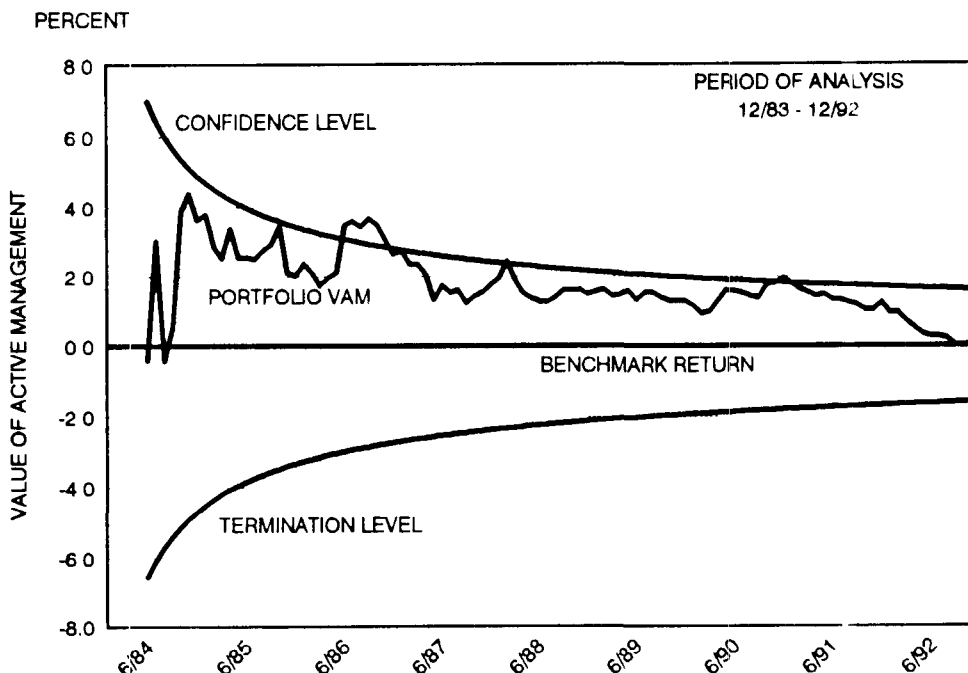
	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 1/1/84
Actual Return	12.9%	5.4%	13.3%	11.6%
Benchmark	13.0	16.4	14.9	11.6

STAFF RECOMMENDATIONS

Latest five year returns are below benchmark. In-depth review completed in June 1992.

VALUE OF ACTIVE MANAGEMENT REPORT

LIEBER & CO



LYNCH & MAYER

PORTFOLIO MANAGER: Eldon Mayer

ASSETS UNDER MANAGEMENT: \$205,345,807

INVESTMENT PHILOSOPHY

Lynch and Mayer invest primarily in high-quality large capitalization growth stocks. They believe that outstanding investments are a function of corporate earnings growth considerably above historical trends or consensus expectations. Lynch and Mayer are bottom-up stock pickers and rely on very little economic analysis in their selection process. Lynch and Mayer screens out stocks below a certain market capitalization and liquidity level and then eliminates additional stocks based on various fundamental criteria. After the screening process they look for at least one of the following four factors: 1) acceleration of growth; 2) improving industry environment; 3) corporate restructuring; or 4) turnaround. The firm generally stays fully invested, with any cash due to lack of attractive investment opportunities.

QUALITATIVE EVALUATION

(Reported by Exception)

Exceptional strengths are:

- Organizational continuity and strong leadership.
- Highly successful and experienced professionals.

QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 2/1/92
Actual Return	8.7%	N.A.	N.A.	10.1%
Benchmark	8.6	N.A.	N.A.	9.1

STAFF RECOMMENDATIONS

No action required.

VAM graph will be created for period ending 9/30/93.

WADDELL & REED

PORTFOLIO MANAGER: Henry Herrman

ASSETS UNDER MANAGEMENT: \$241,058,744

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

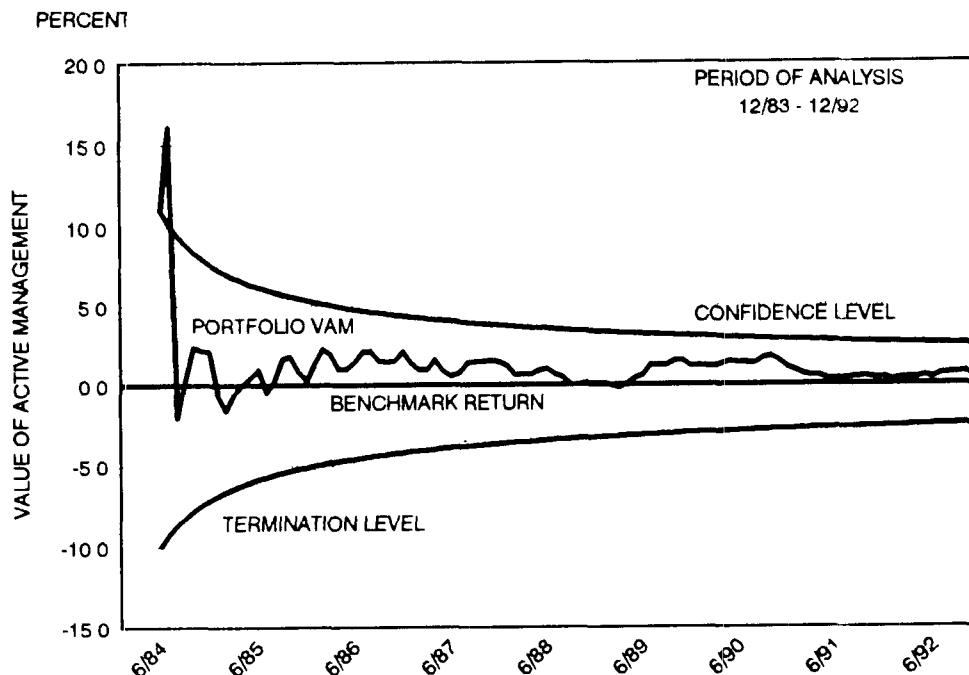
	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 1/1/84
Actual Return	9.4%	14.8%	13.3%	12.1%
Benchmark	9.9	12.5	13.4	11.4

STAFF RECOMMENDATIONS

Latest five year returns are below benchmark. In-depth review completed in December 1992.

VALUE OF ACTIVE MANAGEMENT REPORT

WADDELL & REED



ALLIANCE CAPITAL MANAGEMENT
Investment Commentary
12/31/92

As of 12/31/92, Alliance's portfolio represented 11.2% of the total stock portfolio and 26.2% of the active stock portfolio. For the most recent quarter, Alliance Capital underperformed its benchmark by 0.3% but outperformed the benchmark by 2.6% for the year. The breakdown of Alliance Capital's value added for the latest quarter and year are shown below:

	Qtr.	Year
Stock Selection	0.5%	4.4%
Sector Allocation	-0.8	-2.0
Trading/Other	0.0	0.3

SECTOR ALLOCATION

The following table highlights Alliance's largest sector deviations relative to their benchmark.

	Quarter		Latest Year	
	Avg. Actual	Avg. Bnmk.	Avg. Actual	Avg. Bnmk.
Consumer				
Non-Durable	45.0%	42.3%	48.6%	44.1%
Financial	18.8	9.4	17.1	10.3
Technology	13.2	16.9	12.0	14.1
Basic Material	7.3	12.7	6.3	11.4

For the quarter and latest year, Alliance Capital's sector allocation negative value added was primarily due to underweighting the basic material sector. In addition, during the latest year Alliance's overweighting of recently successful large capitalization growth stocks generated negative value added.

STOCK SELECTION

For the latest quarter, the basic materials sector was the major contributors to the positive stock selection performance but was partially offset by poor performance in the technology sector. For the quarter, the actual basic material sector outperformed the benchmark sector return (20.3% vs. 8.2%) while the actual technology return underperformed its benchmark sector return (12.7% vs. 17.5%). For the year, the consumer non-durable and basic material sectors were the largest contributors to the positive value added. For the year, the basic material and consumer non-durable sectors outperformed their sector benchmark returns (32.2% vs. 16.4% and 6.7% vs. 3.4% respectively).

FORSTMANN LEFF ASSOCIATES
Investment Commentary
12/31/92

As of 12/31/92, Forstmann-Leff's portfolio represented 5.7% of the total stock portfolio and 13.3% of the active stock portfolio. For the most recent quarter, Forstmann-Leff outperformed its benchmark by 4.0% but underperformed by 6.0% for the year. The breakdown of Forstmann-Leff's value added for the latest quarter and year are shown below.

	Qtr.	Year
Stock Selection	4.2%	-4.9%
Sector Allocation	0.7	0.2
Trading/Other	-0.9	-1.3

SECTOR ALLOCATION

The following table highlights Forstmann-Leff's largest sector deviations relative to their benchmark.

	Quarter		Latest Year	
	Avg. Actual	Avg. Bnmk.	Avg. Actual	Avg. Bnmk.
Consumer				
Non-Durable	27.2%	22.4%	30.5%	22.3%
Consumer Durable	2.6	6.2	4.2	6.0
Financial	13.0	29.9	16.4	10.9
Technology	9.8	2.4	5.5	9.8
Cash	25.0	30.0	19.8	30.0

For the quarter, the overweighting of the consumer non-durable sector was the primary cause for Forstmann-Leff's positive sector allocation performance. Also for the quarter, Forstmann-Leff's overweighting of small capitalization stocks generated positive value added. For the year, the overweighting of the consumer non-durable and the underweighting of the technology sectors generated the majority of the negative value added.

STOCK SELECTION

For the latest quarter, the consumer non-durable sector (actual 28.0% vs. benchmark 19.3%) generated the majority of the positive value added. For the year, good performance in the technology sector (actual 47.2% vs. benchmark 19.3%) was mostly offset by poor performance in the financial (actual 18.6% vs. benchmark 26.3%), and consumer durable (actual 3.1% vs. benchmark 21.6% and non-durable (actual 0.8% vs. benchmark 4.9%) sectors.

FRANKLIN PORTFOLIO ASSOCIATES TRUST
Investment Commentary
12/31/92

As of 12/31/92, Franklin's portfolio represented 3.3% of the total stock portfolio and 7.6% of the active stock portfolio. For the most recent quarter, Franklin outperformed its benchmark by 0.1% but underperformed the benchmark by 1.3% for the year. For the latest quarter and year, Franklin generated a positive value added in stock selection and a negative value added for sector allocation and trading/other. The breakdown of Franklin's value added for the latest quarter and year are shown below:

	Qtr	Year
Stock Selection	1.2%	0.8%
Sector Allocation	-0.2	-0.8
Trading/Other	-0.9	-1.2

SECTOR ALLOCATION

The following table highlights Franklin's largest sector deviations relative to their benchmark

	Quarter		Latest Year	
	Avg. Actual	Avg. Bnmk.	Avg. Actual	Avg. Bnmk.
Technology	6.5%	8.9%	5.5%	8.3%
Financial	17.1	15.6	20.8	16.1
Basic Material	7.0	12.0	6.7	11.3

For the quarter and the year, none of the sectors showed a materially large positive or negative value added. In addition, Franklin's small overweighting in value stocks produced some positive value added.

STOCK SELECTION

For the quarter, the technology sector contributed the majority of the positive value added, where the actual sector return significantly outperformed the benchmark sector return (27.5% vs. 14.1%). For the year, the consumer non-durable (actual 10.7% vs benchmark 5.9%) and technology (actual 40.5% vs. benchmark 17.5%) sectors generated most of the positive value added. This was partially offset by poor stock selection in the financial sector (actual 14.7% vs. benchmark 27.3%).

GEOCAPITAL CORPORATION
Investment Commentary
12/31/92

As of 12/31/92, GeoCapital's portfolio represented 3.7% of the total stock portfolio and 8.7% of the active stock portfolio. For the most recent quarter and year, GeoCapital underperformed its benchmark by 2.4% and 7.1% respectively. For the quarter and latest year, they generated negative value added through stock selection and trading/other, but positive value added with their sector allocation bets. The breakdown of GeoCapital's value added for the latest quarter and year are shown below.

	Qtr.	Year
Stock Selection	-1.5%	-9.1%
Sector Allocation	0.2	2.1
Trading/Other	-0.3	-0.8

SECTOR ALLOCATION

The following table highlights GeoCapital's largest sector deviations relative to their benchmark.

	Quarter		Latest Year	
	Avg. Actual	Avg. Bnmk.	Avg. Actual	Avg. Bnmk.
Consumer				
Non-Durable	50.3%	52.9%	53.4%	53.3%
Energy	0.0	3.7	0.0	4.0
Financial	17.3	4.7	16.0	4.2
Capital Goods	0.0	3.7	0.0	3.9
Cash	6.5	2.0	2.7	2.0

For the quarter, the majority of GeoCapital's sector allocation value added was due to underweighting the energy sector. This was partially offset by overweighting cash. Overweighting the financial sector generated the majority of the positive value added. Also for the year, GeoCapital's overweighting of small capitalization stocks generated positive value added.

STOCK SELECTION

For the latest quarter, the negative value added came from the consumer non-durable sector (actual 14.7% vs benchmark 19.7%). For the year, the consumer non-durable (actual -4.4% vs benchmark 7.4%) and technology (actual 2.9% vs benchmark 12.0%) provided the majority of the negative value added.

IDS ADVISORY
Investment Commentary
12/31/92

As of 12/31/92, IDS's portfolio represented 4.4% of the total stock portfolio and 10.2% of the active stock portfolio. For the most recent quarter, IDS outperformed its benchmark by 1.7% but underperformed for the year by 2.7%. For the quarter IDS generated positive value added through stock selection and sector allocation. For the year, IDS generated a small positive value added through sector allocation and negative value added through stock selection and trading/other. The breakdown of IDS's value added for the latest quarter and year are shown below:

	Qtr.	Year
Stock Selection	1.2%	-2.4%
Sector Allocation	0.5	0.1
Trading/Other	0.0	-0.4

SECTOR ALLOCATION

The following table highlights IDS's largest sector deviations relative to their benchmark.

	Quarter		Latest Year	
	Avg. Actual	Avg. Bnmk.	Avg. Actual	Avg. Bnmk.
Technology	15.1%	11.7%	14.2%	10.9%
Financial	11.4	11.2	10.4	14.2
Utilities	1.5	9.7	1.4	9.7
Consumer Durable	12.3	6.5	9.0	5.5
Basic Material	23.1	9.7	22.3	9.9
Consumer Non-Durable	13.4	29.2	13.6	26.0

For the quarter, the majority of IDS's sector allocation positive value added was due to underweighting the utility sector. For the year, no one particular sector showed a significant positive or negative value added. In addition, during the latest year IDS's overweighting of recently successful large capitalization growth stocks generated negative value added.

STOCK SELECTION

For the latest quarter, most sectors generated a small positive value that added up to the total 1.2% positive result. For the year, the consumer non-durable (actual -3.8% vs. benchmark 10.7%) and financial (actual -1.5% vs. benchmark 28.7%) sectors generated the majority of the negative value added.

LIEBER & COMPANY
Investment Commentary
12/31/92

PERFORMANCE RESULTS

As of 12/31/92, Lieber's portfolio represented 3.2% of the total stock portfolio and 7.4% of the active stock portfolio. For the most recent quarter and latest year Lieber underperformed its benchmark by 0.1% and 9.4% respectively. For the quarter Lieber generated negative value added through stock selection and positive value added through sector allocation and trading/other. For the year Lieber produced negative value added through stock selection and trading/other and a small positive value added through sector allocation. The breakdown of Lieber's value added for the latest quarter and year are shown below:

	Qtr.	Year
Stock Selection	-1.4%	-8.6%
Sector Allocation	1.3	0.2
Trading/Other	0.1	-1.1

SECTOR ALLOCATION

The following table highlights Lieber's largest sector deviations relative to their benchmark:

	Quarter		Latest Year	
	Avg.	Avg.	Avg.	Avg.
	Actual	Bnmk.	Actual	Bnmk.
Energy	0.2%	3.3%	0.8%	3.4%
Financial	29.7	20.4	25.3	20.5
Utilities	0.0	4.7	0.5	4.9
Technology	12.5	11.4	15.1	11.0

For the quarter the majority of Lieber's sector allocation positive value added was due to underweighting the energy and utility sectors. For the year, no one particular sector showed a significant positive or negative value added. Also for the latest year, Lieber's overweighting of large capitalization growth stocks generated negative value added.

STOCK SELECTION

For the latest quarter the consumer durable (actual 8.0% vs benchmark 14.4%) and technology (actual 14.4% vs benchmark 22.4%) sectors were the main contributors to the negative performance. For the year, all of the sectors were negative with the exception of the energy sector.

WADDELL & REED
Investment Commentary
12/31/92

As of 12/31/92, Waddell & Reed's portfolio represented 4.2% of the total stock portfolio and 9.7% of the active stock portfolio. For the most recent quarter Waddell & Reed underperformed its benchmark by 0.4%, but outperformed its benchmark by 2.0% for the latest year. The breakdown of Waddell & Reed's value added for the latest quarter and year are shown below:

	Qtr.	Year
Stock Selection	2.2%	3.8%
Sector Allocation	-1.5	-0.5
Trading/Other	-1.1	-1.3

SECTOR ALLOCATION

The following table highlights Waddell & Reed's largest sector deviations relative to their benchmark.

	Quarter		Latest Year	
	Avg. Actual	Avg. Bnmk.	Avg. Actual	Avg. Bnmk.
Consumer				
Non-Durable	30.5%	26.5%	26.9%	26.0%
Financial	5.4	0.9	4.5	0.8
Basic Material	3.5	13.8	9.2	14.2
Technology	5.6	13.4	6.3	13.1
Cash	26.5	20.0	27.2	20.0
Energy	9.7	6.3	7.5	6.5

For the quarter, the majority of Waddell & Reed's sector allocation negative value added was due to overweighting the cash and energy sector and underweighting the technology sector. For the year, overweighting cash and underweighting the technology sector were the major contributors to the negative value added. This was partially offset by overweighting the financial sector. In addition, Waddell & Reed's overweighting of recently successful large capitalization growth stocks during the last year generated negative value added

STOCK SELECTION

For the latest quarter, the consumer non-durable (active 18.3% vs. benchmark 14.8%), capital goods (actual 28.6% vs. benchmark 13.6%) and basic material (actual 20.3% vs. 8.1%) sectors were the major contributors to the positive value added. For the year, the majority of the positive value added came from the capital goods (actual 95.6% vs. benchmark 11.4%) and transportation (actual 59.7% vs. benchmark 15.4%) sectors.

**STATE BOARD
OF INVESTMENT**

**Bond
Manager
Evaluation
Reports**

Fourth Quarter, 1992

DOMESTIC BOND MANAGERS

Fourth Quarter 1992

Domestic bond manager returns are evaluated against the performance of the Salomon Brothers Broad Investment Grade Index (BIG). The Salomon BIG represents most investment grade bonds (BBB or better). The bond managers initially had customized indices. However, since all the managers add value to their portfolio by using the entire bond market, their benchmarks were changed to the Salomon BIG on 10/1/91.

Staff Recommendations:

Staff recommends the following actions concerning manager status:

- No action required.

Manager performance relative to the Salomon BIG is evaluated on a quarterly basis by the Stock and Bond Manager Committee of the Investment Advisory Council.

Current Managers	Total Market Value 12/31/92 (Millions)	Quarter Ending 12/31/92		Year Ending 12/31/92		Annualized Five Years Ending 12/31/92		Annualized Since Inception		% of Bond Segment 12/31/92 Basic Funds
		Actual	Bmrk	Actual	Bmrk	Actual	Bmrk	Actual	Bmrk	
Ark Asset	\$132	0.2%	0.3%	7.0%	7.6%	10.3%	10.5%	12.1%	12.3%	5.1%
IAI	187	0.2	0.3	7.7	7.6	11.2	10.9	13.3	13.1	7.1
Miller Anderson	293	1.3	0.3	7.3	7.6	11.0	11.0	13.2	13.1	11.1
Western Asset	544	0.9	0.3	8.3	7.6	12.2	11.2	14.1	13.0	20.7
Fidelity*	762	0.3	0.3	7.6	7.6	N.A.	N.A.	11.2	11.0	28.9
Lincoln*	714	0.3	0.3	7.5	7.6	N.A.	N.A.	11.0	11.0	27.1
Current Aggregate **		0.6	0.3	7.8	7.6	11.2	11.0	13.2	12.8	100.0
Historical Aggregate***		0.6	0.3	7.8	7.6	11.1	10.9	12.7	12.8	
Salomon Broad Investment Grade Index		0.3		7.6		11.0		13.1		

* Semi-passive manager

** Includes performance of current managers only.

*** Includes performance of terminated managers.

ARK ASSET MANAGEMENT

PORTFOLIO MANAGER: Kevin Hurley

ASSETS UNDER MANAGEMENT: \$132,338,030

INVESTMENT PHILOSOPHY

Ark'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:

- The firm has used an index-like approach in its management of the portfolio and has made relatively few active bets.

QUANTITATIVE EVALUATION

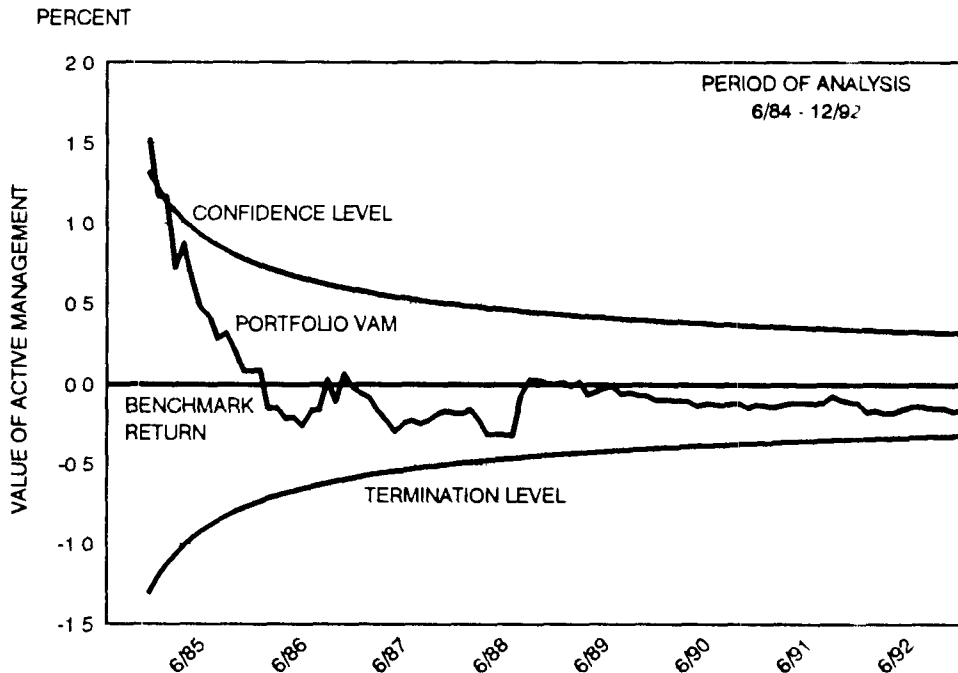
	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 7/1/84
Actual Return	0.2%	7.0%	10.3%	12.1%
Benchmark	0.3	7.6	10.5	12.3

STAFF RECOMMENDATIONS

Latest five year period is below benchmark. An in-depth review was conducted for the September 1992 Board meeting.

VALUE OF ACTIVE MANAGEMENT REPORT

ARK ASSET MANAGEMENT



INVESTMENT ADVISERS

PORTFOLIO MANAGER: Larry Hill

ASSETS UNDER MANAGEMENT: \$187,307,099

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:

- The manager's duration decisions have not added significant value.

QUANTITATIVE EVALUATION

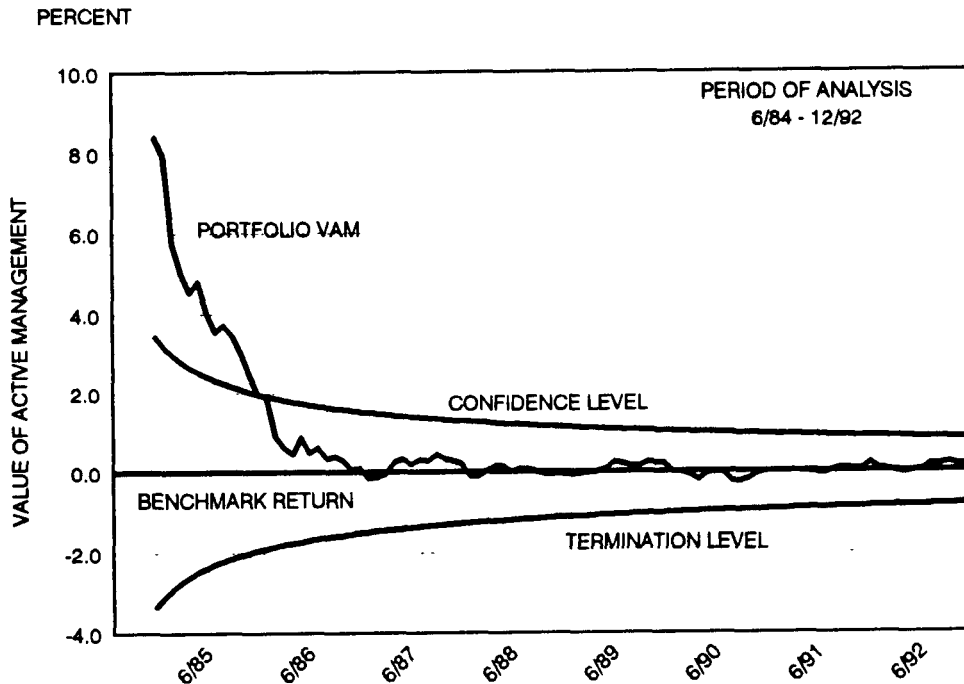
	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 7/1/84
Actual Return	0.2%	7.7%	11.2%	13.3%
Benchmark	0.3	7.6	10.9	13.1

STAFF RECOMMENDATIONS

No action required.

VALUE OF ACTIVE MANAGEMENT REPORT

INVESTMENT ADVISERS



MILLER ANDERSON

PORTFOLIO MANAGER: Tom Bennet

ASSETS UNDER MANAGEMENT: \$292,992,280

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.

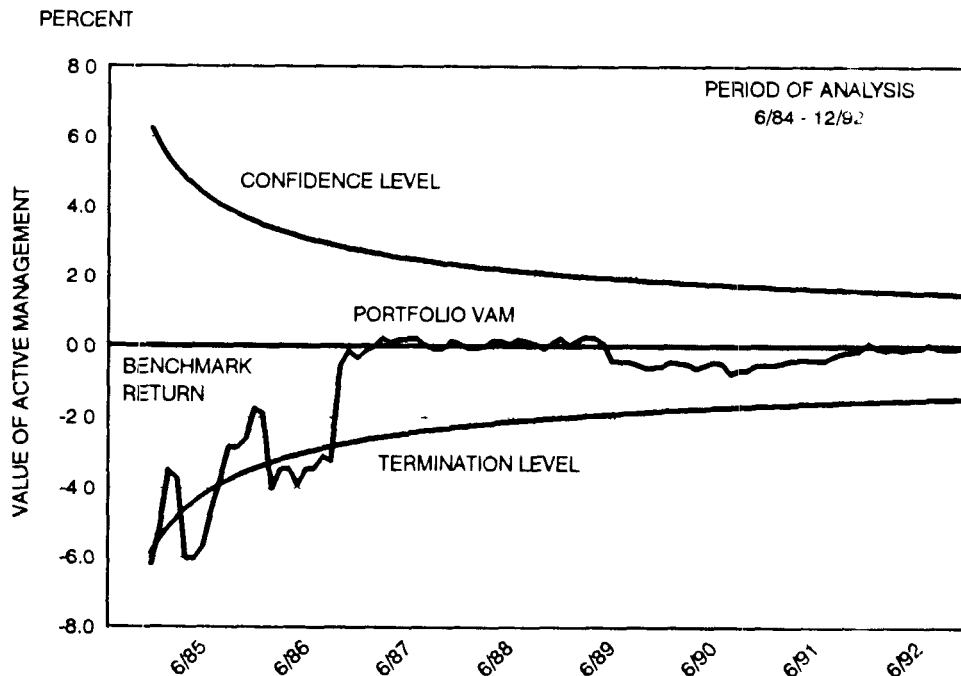
QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 7/1/84
Actual Return	1.3%	7.3%	11.0%	13.2%
Benchmark	0.3	7.6	11.0	13.1

STAFF RECOMMENDATIONS

No action required.

VALUE OF ACTIVE MANAGEMENT REPORT
MILLER ANDERSON



WESTERN ASSET MANAGEMENT

PORTFOLIO MANAGER: Kent Engel

ASSETS UNDER MANAGEMENT: \$544,141,852

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 securities research process.

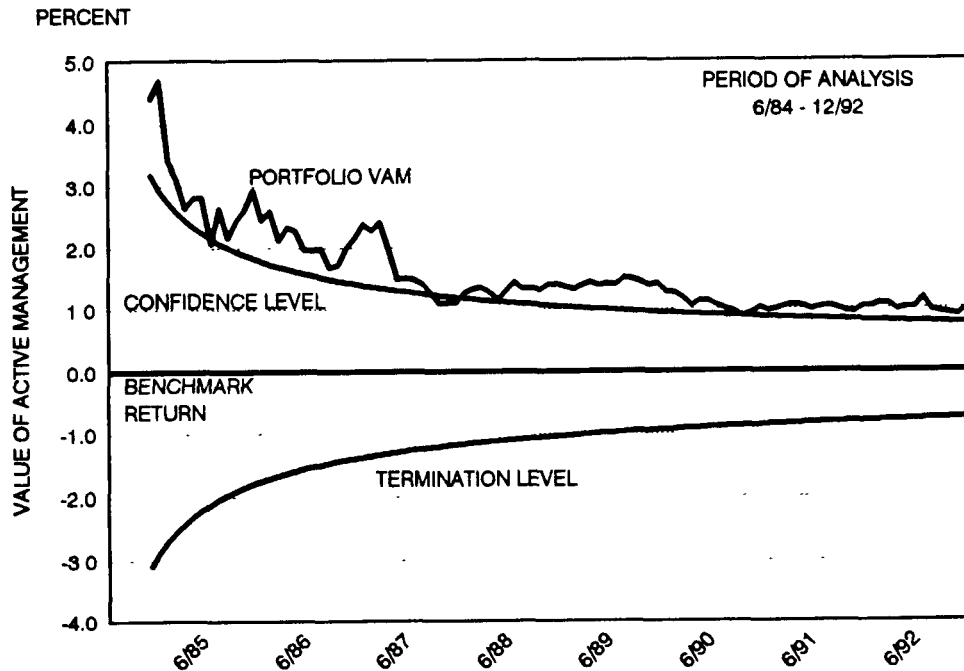
QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 7/1/84
Actual Return	0.9%	8.3%	12.2%	14.1%
Benchmark	0.3	7.6	11.2	13.0

STAFF RECOMMENDATIONS

No action required.

VALUE OF ACTIVE MANAGEMENT REPORT
WESTERN ASSET MANAGEMENT



FIDELITY MANAGEMENT TRUST

PORTFOLIO MANAGER: Sharmin Mossavar-Rahmani

ASSETS UNDER MANAGEMENT: \$761,506,780

INVESTMENT PHILOSOPHY

Fidelity is an enhanced index manager who builds an index portfolio using stratified sampling and a risk factor model. Using stratified sampling, Fidelity divides the Salomon BIG into subsectors based on characteristics like maturity, coupon, sector and quality and chooses securities to represent each cell. The portfolio is then compared to the Salomon BIG using a risk factor model. Fidelity adds value to the portfolio through sector selection, issue selection, credit research and yield curve strategies. Fidelity weights sectors based on their relative value and attempts to buy stable credits or credits likely to be upgraded. Finally, Fidelity changes the maturity distribution of the portfolio securities to take advantage of non-parallel shifts in the yield curve.

QUALITATIVE EVALUATION

(Reported By Exception)

The firm's strengths are:

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

QUANTITATIVE EVALUATION

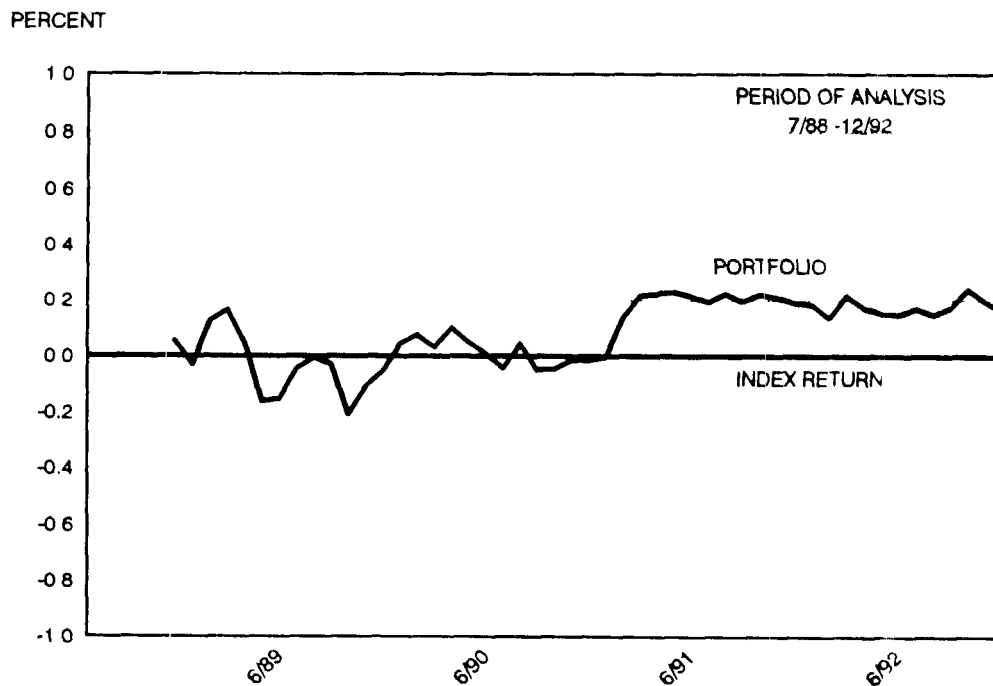
	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 7/1/88
Actual Return	0.3%	7.6%	N.A.	11.2%
Benchmark	0.3	7.6	N.A.	11.0

STAFF RECOMMENDATIONS

No action required.

CUMULATIVE TRACKING REPORT

FIDELITY



LINCOLN CAPITAL MANAGEMENT

PORTFOLIO MANAGER: Brian Johnson

ASSETS UNDER MANAGEMENT: \$713,580,849

INVESTMENT PHILOSOPHY

Lincoln is an enhanced index manager that uses a quantitative approach to managing the portfolio. Lincoln calculates the index's expected return for changes in 54 variables. These variables include interest rates, yield curve shape, call features and sector spreads. Lincoln then constructs a portfolio to match the expected returns for a given change in any of the variables. Lincoln relaxes the return tolerances, defined as the difference between the portfolio's expected returns and that for the index, for an enhanced index fund. The portfolio's securities are selected from a universe of 250 liquid issues using a proprietary risk-valuation model. A linear program or portfolio optimizer then constructs the most undervalued portfolio that still matches the return characteristics of the index.

QUALITATIVE EVALUATION
(Reported By Exception)

The firm's strengths are:

- Highly successful and experienced professionals.
- Extensive quantitative capabilities.

QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 7/1/88
Actual Return	0.3%	7.5%	N.A.	11.0%
Benchmark	0.3	7.6	N.A.	11.0

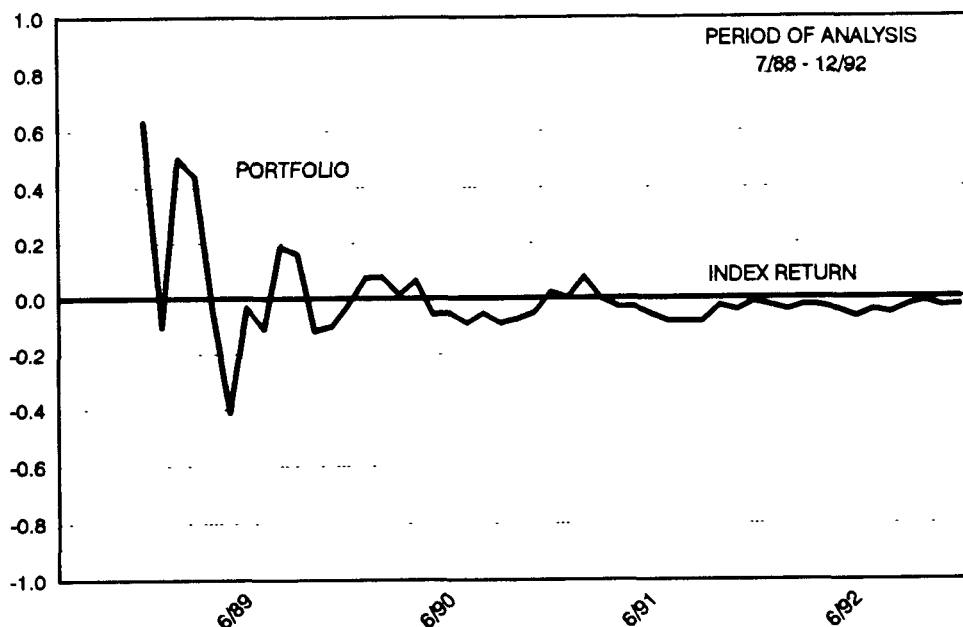
STAFF RECOMMENDATIONS

No action required.

CUMULATIVE TRACKING REPORT

LINCOLN

PERCENT



ARK ASSET MANAGEMENT COMPANY, INC.
Investment Commentary
12/31/92

As of 12/31/92, Ark's portfolio represented 5% of the SBI's fixed income assets. During 1992, Ark underperformed the benchmark by 56 basis points, and this quarter underperformed by 13 basis points. Although Ark was correctly positioned on the yield curve, and were overweighted in mortgages and corporates, they were still unable to outperform the benchmark. This underperformance was presumably due to poor security selection.

Ark feels that despite the economy's excess capacity, uncertainty about the implementation of the new administration's fiscal policy will not allow rates to decline much further. As the result of this, they are maintaining portfolio duration only slightly longer than the benchmark. They are slightly overweighted relative to the benchmark in the mortgage sector and continue to overweight asset-backed securities for their yield advantage. Their plan continues to be to concentrate ownership of corporate debt in the intermediate maturity range.

DURATION AND YIELD CURVE POSITIONING

During the quarter, Ark increased portfolio duration from 4.4 years to 4.6 years. Ark's barbelled portfolio (in anticipation of a flattening yield curve) added to performance this quarter since short rates increased relative to long rates.

SECTOR ALLOCATION

Below is a breakdown of Ark's sector allocation versus the benchmark which is the Salomon Broad Investment Grade Index.

	December 31, 1991		December 31, 1992	
	Ark	Benchmark	Ark	Benchmark
Treasury/Agency	43%	53%	35%	53%
Mortgages	29	29	32	29
Corporates	27	18	19	18
Other	0	0	13	0
Cash	1	0	1	0

During the fourth quarter, Ark continued to hold two primary sector bets. They underweighted the Treasury/Agency sector, and overweighted asset backed securities relative to the benchmark. Mortgages were slightly overweighted and no significant active bets were made in the corporate sector.

INVESTMENT ADVISERS, INC.
Investment Commentary
12/31/92

As of 12/31/92, Investment Adviser's portfolio represented 7% of the SBI's fixed income assets. Over the past year, IAI outperformed the benchmark by 10 basis points, but this quarter they underperformed by 6 basis points

IAI believes that the recovery will continue to be slow and inflation will not be a factor. Despite the Federal Reserve's easing of monetary policy, consumers and businesses are paying off debt rather than borrowing to spend. This, in combination with corporate downsizing and slow job growth has created excess supply of labor, and has contributed to the positive inflation fundamentals. They believe inflation is in a secular decline which will not be interrupted this year. With this, long term bond yields are expected to decline further.

IAI continues to significantly underweight the corporate sector. Over the past year, IAI has also underweighted the mortgage sector in favor of Treasury notes of comparable maturity. During the fourth quarter, however, they increased their mortgage exposure to approximately equal to the benchmark weighting.

DURATION AND YIELD CURVE POSITIONING

As of 12/31/92, the duration of the portfolio was 6.6 years versus the benchmark duration 4.4 of years. During the quarter, long term interest rates did not change appreciably, so this duration bet had little effect on IAI's performance.

The portfolio was positioned for a flatter yield curve. The yield curve did flatten which contributed to performance.

SECTOR ALLOCATION

Below is a breakdown of IAI's sector allocation versus the benchmark which is the Salomon Broad Investment Grade Index:

	December, 1991		December 31, 1992	
	IAI	Benchmark	IAI	Benchmark
Treasury/Agency	79%	53%	66%	53%
Mortgages	15	29	28	29
Corporates	4	18	6	18
Other	0	0	0	0
Cash	2	0	0	0

IAI remained overweighted in the Treasury/Agency sector, but increased its allocation to the mortgage sector. They remain significantly underweighted in corporate securities relative to the benchmark. Increasing the allocation to the mortgage sector helped since this was the best performing for the quarter. Overweighting Treasuries detracted from performance since this sector was the worst performing during the quarter.

MILLER, ANDERSON & SHERRERD
Investment Commentary
12/31/92

As of 12/31/92, Miller, Anderson & Sherrerd's portfolio represented 11% of the SBI's fixed income assets. Over the past year, Miller underperformed the benchmark by 28 basis points, but this quarter outperformed the benchmark by 105 basis points. Miller maintained a significantly longer duration than the benchmark, but yield curve positioning and overweighting of the mortgage sector were the primary factors leading to outperformance this quarter.

Miller believes that slow, but steady growth combined with low inflation will continue. This is expected to eventually lead to lower long term interest rates. Thus, Miller is maintaining a duration significantly longer than the benchmark. Additionally, they believe the long end of the yield curve will decline more than the intermediate or short portions, and are therefore positioning for a flattening of the curve. They continue to hold a large portion of the portfolio in the mortgage sector, but have also increased corporate holdings. They believe call-protected senior corporate securities remain good values. They perceive high quality corporates to be fully valued, and are holding medium quality issues.

DURATION AND YIELD CURVE POSITIONING

Miller's duration as of 12/31/92 was 6.9 years, versus the benchmark of 4.4 years. Since long rates did not change appreciably, holding a portfolio with a duration substantially longer than the benchmark had a minimal affect. Miller was positioned for a flatter yield curve, which helped performance since short rates declined relative to longer rates.

SECTOR ALLOCATION

Below is a breakdown of Miller's sector allocation versus the benchmark which is Salomon Broad Investment Grade Index.

	December 31, 1991		December 31, 1992	
	Miller	Benchmark	Miller	Benchmark
Treasury/Agency	44%	53%	24%	53%
Mortgages	39	29	46	29
Corporates	14	18	25	18
Other	0	0	0	()
Cash	3	0	5	()

Miller underweighted the Treasury/Agency sector, and overweighted the corporate and mortgage sectors this quarter relative to the benchmark. The mortgage sector was the best performing this quarter, which significantly added to performance. Overweighting corporates and mortgages should contribute positively to performance in the future.

WESTERN ASSET MANAGEMENT
Investment Commentary
12/31/92

As of 12/31/92, Western Asset Management's portfolio represented 21% of the SBI's fixed income portfolio. Over the past year, Western outperformed the benchmark by 75 basis points. For the quarter, Western outperformed the market by 66 basis points. The primary reasons for outperformance over the past quarter were a substantial exposure to corporate securities and a correct positioning of the portfolio for a flattening of the yield curve.

Western believes the economy is growing, but at a modest rate. This will keep inflation under control and help lead to lower long term rates. Therefore, they are maintaining a duration longer than the benchmark. They continue to hold a barbelled maturity structure, as they expect short rates to stabilize and long rates to decline further. Corporate and asset backed securities are overweighted since Western expects spreads on these sectors to narrow relative to Treasuries. They remain underweighted in mortgages because they believe declining interest rates and accelerated mortgage prepayments will allow the corporate and government sector to outperform the mortgage-backed sector.

DURATION AND YIELD CURVE POSITIONING

Maintaining a portfolio duration longer than the benchmark had a neutral effect on Western's performance. On 12/31/92, Western's portfolio duration was 5.4 years versus the benchmark of 4.4 years. Maintaining a barbelled maturity structure helped performance as the yield curve flattened during the quarter.

SECTOR ALLOCATION

Western remained overweighted in the corporate sector this quarter. This quarter mortgages outperformed corporates and Treasuries, but over the past year, corporates have been the best performing sector. Below is a breakdown of Western's allocation to each sector versus the benchmark which is the Salomon Broad Investment Grade Index.

	December 31, 1991		December 31, 1992	
	Western	Benchmark	Western	Benchmark
Treasury/Agency	29%	53%	21%	53%
Mortgages	17	29	18	29
Corporates	43	18	45	18
Other	9	0	11	0
Cash	2	0	5	0

This quarter, Western remained underweighted in Treasury and mortgage securities and overweighted corporate securities. Underweighting the mortgage sector detracted from performance since this sector performed well this quarter.

FIDELITY MANAGEMENT TRUST
Investment Commentary
12/31/92

Fidelity's portfolio represents 29 % of the SBI's portfolio. For the year, Fidelity's portfolio returned 7.63 % versus 7.59 % for the Salomon BIG. Fidelity underperformed the BIG for the quarter, 0.25 % versus 0.28 %. Fidelity outperformed the market for the past year primarily because they overweighted corporate securities and underweighted Treasury securities. Additionally, value was added by emphasizing bank and asset-backed securities within the corporate sector.

DURATION

Since Fidelity is an index manager, they do not add value through duration decisions. The portfolio is consistently within 0.2 year of the Salomon BIG duration.

SECTOR ALLOCATION

The following table compares Fidelity's December sector allocations for 1991 and 1992 to the Salomon BIG.

	December 91		December 92	
	Fidelity %	SAL BIG %	Fidelity %	SAL BIG %
Treasury/Govt Spon	42	53	32	53
Mortgages	30	29	34	29
Corporates	27	18	34	19
Cash	0	0	0	0

The above shows that for the quarter and year, Fidelity overweighted corporate securities. Fidelity was overweighted in mortgages last quarter and for most of the year. These weightings helped performance since corporates performed well for both the quarter and the year while mortgages performed well except when Fidelity was underweighted in mortgages. Quarterly mortgage and corporate returns were 0.78% and 0.16% while the government sector returned 0.04%. Yearly returns for mortgages and corporates were 7.37% and 8.87% while governments returned 7.26%.

Within the sectors, the majority of the government assets were invested in long duration securities while the corporate securities had a shorter duration. For the quarter, Fidelity added value within the corporate sector by emphasizing the bank and finance subsector but issue selection and an underweighting in utilities offset these gains.

LINCOLN ASSET MANAGEMENT
Investment Commentary
12/31/92

Lincoln's portfolio represents 27 % of the SBI's portfolio. For the year, Lincoln's portfolio returned 10.98 % versus 11.01 % for the Salomon BIG. Lincoln matched the BIG for the quarter , 0.27 % verses 0.28 %. Lincoln added value primarily through security selection.

DURATION

Since Lincoln is an index manager, they do not add value through duration decisions. The portfolio is consistently within 0.1 year of the Salomon BIG duration.

SECTOR ALLOCATION

The following table compares December sector allocations to the Salomon BIG.

	December 91		December 92	
	Lincoln %	SAL BIG %	Lincoln %	SAL BIG %
Treasury/Govt Spon.	51	52	52	52
Mortgages	28	29	28	29
Corporates	14	18	15	18
Other	1	0	1	0
Cash	6	0	4	0

The above shows that Lincoln's portfolio mirrored the market . Lincoln was slightly underweighted in both corporates and mortgages for the year and the quarter. This probably lowered returns since mortgage and corporate returns were higher than Treasury returns. Quarterly mortgage and corporate returns were 0.78% and 0.16% while the government sector returned 0.04%. Yearly returns for mortgages and corporates were 7.37% and 8.87% while governments returned 7.26%.

Within the corporate sector, Lincoln underweighted utilities for the quarter and year because they thought option adjusted spreads were narrow. To offset the yield disadvantage of this underweighting, Government Trust Certificates were and continue to be overweighted versus other agency securities in the government sector. These certificates had and still have wider spreads than other agency securities. Lincoln added and continues to add value by overweighting asset-backed securities. Asset backed represent 5.2 % of the portfolio

Lincoln maintained a neutral position in mortgages because the market was volatile Lincoln believes the volatility will continue and will maintain a neutral position. Lincoln added value through mortgage deferred settlements.

Tab G

COMMITTEE REPORT

DATE: March 2, 1993

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

FROM: **Alternative Investment Committee**

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

- Review of current strategy.
- Results of annual review sessions with existing managers.
- Status of First Reserve, an existing resource manager
- Additional investment with an existing venture capital manager, Golder, Thoma and Cressey.

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 investments 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 \$430 million to fifteen (15) commingled real estate funds.

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 twenty-four (24) commingled venture capital funds for a total commitment of \$614 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 \$138 million to eight (8) commingled oil and gas funds

2) Results of Annual Review Sessions with Existing Managers.

During January, the Alternative Investment Committee and staff attended annual review sessions with three of the SBI's private equity managers (Northwest, Summit and Investment Advisors). Overall, the meetings went well and produced no major surprises

Summaries of the review sessions are included as **Attachments B through D** of this Committee Report

3) Status of First Reserve, an existing resource manager.

As discussed at the last SBI meeting, First Reserve is involved in litigation which potentially could force them into Chapter 11 bankruptcy. At that meeting, the SBI authorized the executive director, with assistance from the SBI's legal counsel and concurrence of the IAC Alternative Investment Committee, to approve or disapprove of partnership changes and to negotiate and execute and amendments that are necessary and appropriate to provide the best management of fund assets of affected partnerships managed by First Reserve.

Since the last SBI meeting, final judgment on the First Reserve litigation has not yet been entered and no action has been taken by the executive director regarding the First Reserve partnerships

ACTION ITEMS:

1) Additional investment with an existing venture capital manager, Golder, Thoma and Cressey.

Golder, Thoma and Cressey is seeking investors in a new \$300 million private equity investment fund, Golder, Thoma and Cressey Fund IV. Fund IV is being raised as a successor fund to fund III, which raised \$235 million. To date, approximately \$163 million of Fund III has been invested with full investment expected by June 1993. Like Fund III, Fund IV will invest primarily in industry consolidation investments.

Since 1987, the SBI has committed \$14 million to Golder Thoma's Fund III. To date, Golder Thoma has drawdown \$10.5 million of the SBI's aggregate commitment and returned \$1.5 million. The SBI's remaining investment with Golder Thoma has a market value of approximately \$15.6 million. These numbers translate to an annualized internal rate of return of 18.8% since inception.

RECOMMENDATION:

The Committee recommends that the SBI authorize the executive director, with assistance from the SBI's legal counsel, to negotiate and execute an investment up to \$20 million or 20%, whichever is less, in the Golder, Thoma, Cressey Fund IV.

ATTACHMENT A

SUMMARY OF ALTERNATIVE INVESTMENTS AS OF 12/31/92

	<u>MARKET VALUE</u>	<u>UNFUNDED COMMITMENT</u>	<u>TOTALS</u>
REAL ESTATE \$ % OF BASIC RET FUND	\$374,016,548 4.07%	\$45,197,646 0.49%	\$419,214,194 4.56%
VENTURE CAPITAL \$ % OF BASIC RET FUND	\$391,913,718 4.26%	\$274,898,019 2.99%	\$666,811,737 7.26%
RESOURCE \$ % OF BASIC RET FUND	\$97,834,824 1.06%	\$16,102,916 0.18%	\$113,937,740 1.24%
TOTALS % OF BASIC RET FUND	\$863,765,090 9.40%	\$336,198,581 3.66%	\$1,199,963,671 13.06%
	15 %	ALLOCATION TARGET	\$1,378,657,515
		AMOUNT AVAILABLE FOR INVESTMENT	\$178,693,844
* Market Value of Basic Retirement Fund at 12/30/92:			\$9,191,050,099

See next page for additional detail

The market value information for alternative investments in this Attachment has been revised based on updated information during January and February 1993.

ATTACHMENT A (con't)

ALTERNATIVE EQUITY INVESTMENTS

	INCEPT DATE	FUNDED COMMIT	MKT VALUE OF FUNDED COMMIT	CASH DISTRIBUTIONS	UNFUNDED COMMIT	IRR	MEASUREMENT PERIOD (YEARS)	
REAL ESTATE								
AETNA	4/82	\$40,000,000	\$40,000,000	\$55,357,489	\$0	3.1%	10.8	
EQUITABLE	10/81	\$40,000,000	\$40,000,000	\$67,339,087	\$0	5.3%	11.4	
HEITMAN I	8/84	\$20,000,000	\$20,000,000	\$13,704,692	\$11,842,633	4.5%	8.5	
HEITMAN II	11/85	\$30,000,000	\$30,000,000	\$29,545,472	\$10,893,282	5.4%	7.2	
HEITMAN III	2/87	\$20,000,000	\$20,000,000	\$15,777,901	\$5,130,248	1.0%	6.0	
HEITMAN V	12/91	\$20,000,000	\$20,000,000	\$20,237,292	\$181,112	4.6%	1.1	
LASALLE	9/91	\$15,000,000	\$6,019,808	\$6,148,457	\$0	\$8,880,192	3.0%	1.4
PAINE WEBBER *	2/90	\$500,000	\$500,000	\$338,750	\$67,606	\$0	-7.1%	3.0
RREEF	5/84	\$75,000,000	\$75,000,000	\$64,499,755	\$21,016,762	\$0	2.1%	8.7
AEW III	9/85	\$20,000,000	\$20,000,000	\$19,768,051	\$0	\$0	-0.2%	7.4
AEW IV	9/86	\$15,000,000	\$15,000,000	\$4,041,549	\$829	\$0	-19.5%	6.4
AEW V	12/87	\$15,000,000	\$15,000,000	\$9,782,948	\$65,593	\$0	-8.6%	5.1
TCW III	8/85	\$40,000,000	\$40,000,000	\$29,511,474	\$10,900,073	\$0	0.2%	7.5
TCW IV	11/86	\$30,000,000	\$30,000,000	\$24,228,031	\$2,399,405	\$0	-2.4%	6.2
ZELL	9/91	\$50,000,000	\$13,782,546	\$13,735,600	\$0	\$36,17,454	-0.7%	1.2
TOTAL RE PORTFOLIO		\$430,500,000	\$385,302,354	\$374,016,548	\$62,497,542	\$45,197,646		
VENTURE CAPITAL								
ALLIED	9/85	\$5,000,000	\$5,000,000	\$3,684,784	\$2,520,203	\$0	4.8%	7.4
DSV	4/85	\$10,000,000	\$10,000,000	\$12,105,227	\$0	\$0	2.8%	7.8
FIRST CENTURY	12/84	\$10,000,000	\$9,000,000	\$7,917,968	\$3,961,480	\$1,000,000	7.9%	8.1
BRINSON	5/88	\$5,000,000	\$4,998,874	\$3,906,990	\$2,328,228	\$1,126	8.7%	4.7
BRINSON II	7/90	\$20,000,000	\$10,000,000	\$9,407,465	\$3,713,296	\$10,000,000	24.1%	2.2
CHURCHILL	10/92	\$20,000,000	\$4,000,000	\$4,000,000	\$0	\$16,000,000	0.0%	0.3
GOLDER THOMA	10/87	\$14,000,000	\$10,505,000	\$15,573,729	\$1,553,331	\$3,450,000	18.8%	5.3
IAI VENTURES I *	3/91	\$500,000	\$500,000	\$453,554	\$146,007	\$0	9.9%	1.9
IAI VENTURES II	7/90	\$10,000,000	\$5,624,928	\$5,854,880	\$59,090	\$4,35,072	3.9%	2.5
INMAN/BOWMAN	6/85	\$7,500,000	\$7,500,000	\$6,069,015	\$0	\$0	-4.7%	7.6
IMR JACOBS	7/92	\$30,000,000	\$450,000	\$450,000	\$0	\$29,500,000	0.0%	0.6
K&R I	3/84	\$25,000,000	\$25,000,000	\$42,900,000	\$61,513,808	\$0	30.9%	8.6
K&R II	2/85	\$18,365,339	\$18,365,339	\$24,720,000	\$23,314,630	\$0	20.2%	6.8
K&R III	10/87	\$146,634,660	\$130,350,000	\$184,750,000	\$20,710,832	\$16,284,660	11.0%	5.3
K&R IV	5/91	\$150,000,000	\$0	\$0	\$0	\$150,000,000	0.0%	1.4
MATRIX	8/85	\$10,000,000	\$10,000,000	\$5,096,031	\$11,805,254	\$0	11.5%	7.5
MATRIX II	5/90	\$10,000,000	\$5,000,000	\$5,039,335	\$1,052	\$5,000,000	0.7%	2.8
MIDWEST BANK	10/92	\$20,000,000	\$1,000,000	\$1,000,000	\$0	\$19,000,000	0.0%	0.3
NORWEST	1/84	\$10,000,000	\$10,000,000	\$4,107,118	\$6,324,104	\$0	0.7%	9.0
SUMMIT I	12/84	\$10,000,000	\$10,000,000	\$5,172,888	\$11,546,817	\$0	11.1%	8.1
SUMMIT II	5/88	\$30,000,000	\$25,500,000	\$26,036,770	\$14,983,841	\$4,500,000	24.2%	4.7
SUPRIOR	6/86	\$6,645,000	\$6,312,750	\$7,167,650	\$205,547	\$3,000,250	4.3%	6.6
T ROWE PRICE	11/87	\$15,445,368	\$15,445,368	\$7,058,154	\$11,570,110	\$0	43.9%	5.2
ZELL/CHILMARK	7/90	\$30,000,000	\$14,640,089	\$9,442,160	\$1,926,562	\$15,350,911	-27.9%	2.5
TOTAL VC PORTFOLIO		\$614,090,367	\$339,192,348	\$391,913,718	\$178,184,192	\$274,898,019		
RESOURCES								
AMGO I	9/81	\$15,000,000	\$15,000,000	\$4,309,374	\$3,614,536	\$0	-7.4%	11.4
AMGO II	2/83	\$7,000,000	\$7,000,000	\$5,926,396	\$2,325,453	\$0	2.3%	10.0
AMGO IV	7/88	\$12,300,000	\$12,300,000	\$14,569,934	\$1,508,552	\$0	8.2%	4.7
AMGO V	5/90	\$16,800,000	\$14,535,147	\$13,958,134	\$3,403,869	\$2,260,853	9.3%	2.7
APACHE III	12/86	\$30,000,000	\$30,000,000	\$9,660,743	\$32,339,998	\$0	10.8%	6.1
MORGAN O&G	8/88	\$15,000,000	\$11,400,000	\$12,165,024	\$701,446	\$3,600,000	3.6%	4.5
B P ROYALTY	2/89	\$25,000,000	\$25,000,000	\$31,125,000	\$12,540,668	\$0	19.1%	4.0
SIMMONS OFS	7/91	\$17,000,000	\$6,761,937	\$6,120,219	\$10,000	\$10,230,663	-20.4%	1.5
TOTAL RES PORTFOLIO		\$138,100,000	\$121,997,084	\$97,834,824	\$56,444,521	\$16,102,916		
TOTAL ALT INV PORTFOLIO		\$1,182,690,367	\$846,491,786	\$863,765,090	\$297,126,257	\$336,198,581		

* RECEIVED FROM POLICE & FIRE CONSOLIDATIONS

ATTACHMENT B

ANNUAL REPORT SUMMARY IAI VENTURE CAPITAL GROUP January 26, 1993

MANAGER REPRESENTATIVES: Yuval Almog, Linda Watchmaker

SBI ASSETS UNDER MANAGEMENT:	IAI I	\$453,554
	Superior	7,167,650
	IAI II	<u>5,854,880</u>
	TOTAL	\$13,476,084

BACKGROUND AND DESCRIPTION:

The SBI has investments in three funds managed by the IAI Venture Capital Group, a subsidiary of Investment Advisors, Inc. The first, Superior Ventures is a Minnesota-based venture capital limited partnership. It was formed in June 1986 and has an eleven year term. Superior Ventures can invest up to 15% of the fund in other Minnesota-based venture capital limited partnerships. The remainder of the fund will be invested in operating companies located within the state. IAI Venture Partners II, the second fund, was formed in July 1990. Half of the fund is slated for Minnesota-based investments. In February 1991, the SBI acquired a small interest in IAI Venture Partners I from the Rochester Fire and Police Fund. This fund is 60% invested in other limited partnerships with the remainder of the fund invested in portfolio companies located primarily in Minnesota and California.

QUALITATIVE EVALUATION:

- IAI Venture partners I and Superior are fully invested. IAI Venture II has drawdown 56% of the original commitment. During the next year, it is anticipated that a few companies may be added to the portfolio in the healthcare and technology industries, depending on the evolution and financing needs of the incubator companies.
- The rate of return of IAI I has been adversely impacted by its investment strategy which emphasized diversification by investing in other venture partnerships and its takedown schedule. The expected return for IAI I is 12-15%. Superior's and IAI II's returns have been positively impacted by their strategy of investing in fewer companies. The projected returns for Superior and IAI II are 15-20% and 20-25%, respectively.
- Pete McNerney joined IAI Venture Capital Group as a general partner specializing in the healthcare industry. Pete's experience includes eleven years with Baxter Healthcare in a variety of management positions within the U.S. and overseas, and founding and building a company. IAI Venture Capital Group is considering adding a research professional and adding another partner.

ATTACHMENT B (con't)

IAI QUANTITATIVE EVALUATION: (through December 31, 1992)

	IAI I	SUPERIOR	IAI II
COMMITMENT:	\$500,000	\$6,645,000	\$10,000,000
FUNDED COMMITMENT:	500,000	6,312,750	5,624,928
MARKET VALUE OF FUNDED COMMITMENT:	453,554	7,167,650	5,854,880
CASH DISTRIBUTIONS:	146,007	205,547	59,090
INCEPTION DATE(S):	March 1991*	June 1986	July 1990
INTERNAL RATE OF RETURN (IRR): (annualized, since inception)	9.9%	4 3%	3 9%

* Received from police and fire consolidations

DIVERSIFICATION PROFILE

LOCATION	PERCENTAGE
Minnesota	64 8%
West	27 0
East	7 5
South	<u>0 7</u>
	100 0%

STAGE OF DEVELOPMENT	PERCENTAGE
Seed	3 0%
Development	18 4
Introduction	40 9
Expansion	<u>37 7</u>
	100 0%

INDUSTRY	PERCENTAGE
Technical	57 2%
Medical	19 9
Consumer/Other	<u>22 9</u>
	100 0%

Tab H

**MINNESOTA
STATE
BOARD OF
INVESTMENT**



Board Members:

Governor
Arne H. Carlson

State Auditor
Mark B. Dayton

State Treasurer
Michael A. McGrath

Secretary of State
Joan Anderson Growe

Attorney General
Hubert H. Humphrey III

Executive Director:

Howard J. Bicker

*Suite 105, MEA Bldg.
55 Sherburne Avenue
St. Paul, MN 55155
(612)296-3328
FAX (612)296-9572*

*An Equal Opportunity
Employer*

DATE: March 2, 1993

TO: Members, State Board Investment

FROM: Howard Bicker

SUBJECT: Proxy Committee Report

The Proxy Committee made the attached report at the December 9, 1992 meeting of the SBI. The following is excerpted from the minutes of the December 9 meeting:

"Mr. Humphrey renewed his motion to table the [Proxy Committee] report. Ms. Growe seconded the motion. Mr. Dayton moved that the report be put on the Board's agenda for the March 1993 meeting. Mr. Humphrey seconded the motion. The motion passed....Mr. Bicker asked for clarification on the status of the Proxy Committee Report. He said it was his understanding that the Proxy Committee Report would be put into the next Board folder. Mr. Humphrey said that his motion was to table. Mr. Carlson said that as a result, the Proxy Committee Report would automatically be brought back to the Board."

The entire committee report as presented at the December 1992 meeting is attached. It included performance data through 9/30/92. Performance impact through 12/31/92 is on page 9. It includes updated and additional information received from Wilshire Associates in late February.

COMMITTEE REPORT

DATE: December 7, 1992

TO: Members, State Board of Investment

FROM: Proxy Committee

At its meeting in June 1992, the State Board of Investment (SBI) received a report from the Investment Advisory Council (IAC) which recommended that the SBI's investment restriction on liquor and tobacco companies be eliminated. In response, the Board referred the issue to a committee of the SBI for further review. The Proxy Committee has completed its review and is now making its report to the Board.

Impact of Existing Policy on Liquor and Tobacco

The SBI has had a long standing policy of not holding the stock of any company which obtains more than 50% of its revenues from the sale of liquor or tobacco. This restriction has been in place for more than two decades. Arguments which have been made for the policy include concerns that companies obtained more than 50% of revenues from alcohol and tobacco are imprudent investments because of the companies exposure to potential liability for damages from litigation regarding health risks and because investment in such companies could lead to an increase in long term costs to beneficiaries, the taxpayers of the state and the state as whole which are attributable to health risks of alcohol and tobacco.

The IAC's recommendation to lift the restriction on liquor and tobacco was based on data that compared the returns of the Wilshire 5000 stock index with and without the restricted securities from January 1, 1980 through March 31, 1992. The data showed that the restrictions reduced returns of the index by approximately 0.4% on an annualized basis during that period.

The Proxy Committee reviewed similar data for the period from January 1, 1980 through September 30, 1992 (see Attachment A). The data show that during the first half of the 1980's, the impact of the restriction was positive in some years and negative in others. Since the mid 1980's, the impact has been consistently negative. For the entire period, the restriction reduced returns of the Wilshire 5000 by 0.41% (41 basis points) on an annualized basis. The impact on the actively managed portion of the stock segment is more difficult to determine since active stock managers may or may not have chosen to include some of the securities in their portfolios if they had not been restricted by the SBI.

It is not possible to determine whether the impact of the SBI's liquor and tobacco policy will be positive or negative in future periods. The actual result will depend, in large part, on prevailing business and economic conditions. However, the Proxy Committee notes that tobacco companies are exposed to potential liability for damages arising from ongoing litigation concerning the health risks associated with smoking. The recent U.S. Supreme Court decision in *Cicilalone v Liggett Group, Inc.*, 112 S. Ct. 2608 (1992) permitting claims based on express warranty, intentional fraud, misrepresentation or conspiracy to be asserted against the tobacco industry has only served to heighten these concerns. Since the damage claims associated with the outstanding lawsuits are potentially very large, future verdicts or settlements adverse to tobacco companies may have a negative impact on the value of the companies and their stock

Action of Other Pension Funds

The Committee also attempted to determine what action other pension funds have taken with respect to this issue

As you know, the SBI relies on research from the Investor Responsibility Research Center (IRRC) on a variety of corporate governance and social responsibility issues. IRRC is not aware of any state pension fund with laws or regulations which prohibit investments in liquor or tobacco companies. They have identified one municipal pension fund that has a tobacco restriction in effect at the present time. A copy of IRRC's response to our inquiry on this matter is in **Attachment B**

Several pension funds, primarily those affiliated with church or religious groups, have initiated shareholder resolutions which call for companies to stop or curtail their involvement in tobacco production, cigarette marketing, and other tobacco-related lines of business. Consistent with spirit of the SBI's policy to restrict the SBI's investment in liquor and tobacco companies, the Proxy Committee has voted SBI shares in support of many of these resolutions. Shareholder activism in this area has grown in recent years and the Proxy Committee expects that these efforts to affect corporate behavior will gain support among other shareholder groups as well

Alternatives Identified by the Committee

The Proxy Committee identified several alternatives concerning the SBI's policy on liquor and tobacco:

- Make no changes to the current restriction policy
- Withdraw the current restrictions for the entire portfolio.
- Change the current policy prohibiting ownership of the affected securities to a policy that focuses on the actively managed portfolio similar to the SBI's policy concerning companies with direct investment in South Africa, i.e. active managers may purchase

restricted securities if the managers informs the SBI that they believe it would be a breach of their fiduciary responsibility not to do so.

Conclusion

Based on its review, the Proxy Committee recommends that the SBI lift investment restrictions concerning liquor and tobacco companies. However, due to the potential liability associated with pending litigation against several of these companies, the Proxy Committee strongly urges the SBI to become a more active shareholder on issues associated with liquor and tobacco.

The Committee recommends that the SBI direct the Proxy Committee, where feasible, to sponsor, co-sponsor and support shareholder resolutions that call for a company to reduce its involvement in liquor and tobacco production, product marketing and other related lines of business in order to diversify its business in a manner that will reduce or eliminate potential liability to legal claims associated with liquor and tobacco that may negatively impact the value of the SBI's holdings.

ATTACHMENT A

**Liquor and Tobacco Restrictions
Impact on Wilshire 5000 Returns**

Year	Wilshire Restricted (1)	Wilshire 5000	Difference
1980	32.75%	33.66%	(0.91%)
1981	(4.87)	(3.75)	(1.12)
1982	20.00	18.69	1.31
1983	22.80	23.45	(0.65)
1984	3.19	3.04	0.15
1985	32.17	32.57	(0.40)
1986	15.15	16.09	(0.94)
1987	1.93	2.27	(0.34)
1988	17.53	17.93	(0.40)
1989	28.59	29.18	(0.59)
1990	(6.84)	(6.18)	(0.66)
1991	33.89	34.21	(0.32)
1992 thru 9/30	1.27	1.58	(0.31)
Period Ending 9/30/92			
Qtr	2.54	3.07	(0.47)
1 yr	9.98	10.41	(0.43)
3 yr.	8.29	8.75	(0.46)
5 yr	7.98	8.44	(0.46)
Since 1/1/80	14.61	15.02	(0.41)

(1) Securities restricted by the SBI's policy on liquor and tobacco i.e., companies who obtain more than 50% of their revenue from the sale of liquor and tobacco

Investor
Responsibility
Research
Center Inc.

Via Facsimile Transmission

December 1, 1992

Arthur Blauzda
Senior Investment Analyst
Minnesota State Board of Investment
55 Sherburne Ave. - Suite 105
St. Paul, Minnesota 55155
Fax: (612) 296-9572

Dear Mr. Blauzda:

This letter confirms our conversation earlier today. You requested the name of any state public pension system that has prohibited investment of its funds in tobacco or alcoholic beverage companies. To the best of my knowledge, no state fund has any kind of formal or informal policy prohibiting such investments. The only public fund to formally prohibit investments in such stocks at all is the Cambridge (Mass.) Retirement System, which divested of tobacco stocks in 1990. While there may be some state or municipal systems out there that do have restrictions of this kind, we have not yet discovered them.

While a number of legislatures and city councils have considered and continue to consider the idea of prohibiting investments in tobacco or alcoholic beverage companies, to my knowledge no laws or regulations that would actually affect the investment of state funds have resulted. We will certainly keep looking for future policies in this area.

Sincerely,



Trex Proffitt
Research Analyst
Social Issues Service

**Investment Restrictions
Impact on Wilshire 5000 Returns
Through 12/31/92**

Year	Wilshire Restricted *	Wilshire 5000	Difference
1980	32.75%	33.66%	(0.91%)
1981	(4.87)	(3.75)	(1.12)
1982	20.00	18.69	1.31
1983	22.80	23.45	(0.65)
1984	3.37	3.04	0.33
1985	32.19	32.57	(0.42)
1986	15.22	16.09	(0.87)
1987	1.94	2.27	(0.33)
1988	17.45	17.93	(0.48)
1989	28.60	29.18	(0.58)
1990	(6.51)	(6.18)	(0.33)
1991	33.99	34.21	(0.22)
1992	9.50	8.97	0.53

Period Ending 12/31/92

Qtr.	7.47%	7.28%	0.19%
1 yr.	9.50	8.97	0.53
3 yr.	11.11	11.12	(0.01)
5 yr.	15.68	15.89	(0.21)
Since 1/1/80	15.05	15.34	(0.29)

	AHP*	Liquor*	Tobacco*	Wilshire 5000
Period Ending 12/31/92				
5 yrs. (1988-1992)	17.90%	15.31%	24.33%	15.9%
10 yrs. (1983-1992)	16.66	18.70	22.94	15.4
12 yrs. (1981-1992)	19.32	19.91	22.46	13.9

* Securities restricted by the SBI's policy on American Home Products (AHP) as well as liquor and tobacco (i.e., companies who obtain more than 50% of their revenue from the sale of liquor and tobacco). Data obtained from Wilshire Associates.

February 1993