

**MINNESOTA STATE BOARD
OF INVESTMENT
MEETING
October 10, 1995
&
INVESTMENT ADVISORY
COUNCIL MEETING
September 25, 1995**

**AGENDA
STATE BOARD OF INVESTMENT
MEETING**

Tuesday, October 10, 1995

8:30 A.M. - Room 123

State Capitol - Saint Paul

TAB

- 1. Approval of Minutes of June 28, 1995**

- 2. Report from the Executive Director (H. Bicker)**
 - A. Quarterly Investment Review (April 1 - June 30, 1995) **A**
 - B. Portfolio Statistics (June 30, 1995) **B**
 - C. Administrative Report **C**
 1. Budget and travel reports
 2. Board meeting dates for remainder of calendar 1995

- 3. Reports from the Investment Advisory Council (J. Yeomans)**
 - A. Asset Allocation Committee **D**
 1. Review of asset allocation for Basics and Post Funds
 2. Review of rebalancing policy for Basics and Post Funds

 - B. Domestic Manager Committee **E**
 1. Review of manager performance
 2. Review required by the Manager Continuation Policy
 3. Report from the Manager Re-Interview Committee

 - C. International Manager Committee **F**
 1. Review of manager performance
 2. Approval of position paper on currency management

 - D. Alternative Investment Committee **G**
 1. Results of annual review sessions
 2. Review of Zell/Chilmark and Zell/Merrill Lynch Real Estate

- 4. Report from the Currency Manager Search Committee (P. Sausen) **H****

- 5. Report from the Proxy Committee (P. Sausen)**

**Minutes
State Board of Investment
June 28, 1995**

The State Board of Investment (SBI) met at 8:30 A.M. on Wednesday, June 28, 1995 in Room 125, State Capitol, St. Paul, Minnesota. Governor Arne H. Carlson, Chair; State Auditor Judith H. Dutcher; State Treasurer Michael A. McGrath; Secretary of State Joan Anderson Growe and Attorney General Hubert H. Humphrey III were present.

Mr. Carlson called the meeting to order and the minutes of the March 15, 1995 meeting were approved.

Executive Director's Report

Mr. Bicker, Executive Director, referred members to Tab A of the meeting materials and reported that the Combined Funds had exceeded inflation over the ten year period ending March 31, 1995 (Combined Funds 11.8% vs. Inflation 3.6%) and slightly outperformed the median fund (Combined Funds 10.1% vs. Median 10.0%) for the most recent five years. He added that the Combined Funds also outperformed its composite index (Combined 10.1% vs. Composite 9.9%) over the same five year period. He reported that the Basic Funds had exceeded their composite index (Basics 10.1% vs. Composite 10.0%) over the last five years while the Post Fund had underperformed its composite index for the period July 1, 1993 - March 31, 1995 (Post 5.9% vs. Composite 6.4%).

Mr. Bicker reported that the Basic Funds' assets increased 6.2% for the quarter ending March 31, 1995 due to positive investment returns and that the asset mix is basically in-line with policy targets. He said that the Basic Funds had underperformed its composite index for the quarter (Basics 5.6% vs. Composite 6.1%) and year (Basics 7.9% vs. Composite 9.1%). He noted that further discussion of the Fund's performance would take place later in the meeting.

Mr. Bicker reported that the Post Retirement Fund had increased in value by 5.1% during the quarter due to positive investment returns and that the Fund had rebalanced its asset mix in April 1995. He said that the total fund had underperformed its composite index for the quarter (Post Fund 6.3% vs. Composite 6.6%) and year (Post Fund 8.1% vs. Composite 9.3%).

Mr. Bicker stated that the domestic stock manager group underperformed for the quarter (Domestic Stocks 8.5% vs. Wilshire 5000 9.0%). He said the international stock manager group had underperformed its target for the quarter (International Stocks -0.1% vs. EAFE 1.9%) due, in large part, to currency impact. He added that the domestic bond manager group matched its target for the quarter (at 5.0%). In response to a question from Mr. Carlson, Mr. Bicker confirmed that further discussion of the domestic stock manager performance would occur during the Domestic Manager Committee Report.

Mr. Bicker reported that the Assigned Risk Plan (ARP) had outperformed its composite index for the quarter (ARP 5.5% vs. Composite 5.4%) but had underperformed for the year (ARP 6.6% vs. Composite 7.3%). He said that the equity segment of the Assigned Risk Plan (ARP) had slightly underperformed its benchmark for the quarter (Equity Segment 9.5% vs. Benchmark 9.7%) due in part to a rebalancing of the fund to its new manager's investment style. He added that the bond segment had slightly outperformed for the quarter (Bond Segment 4.5% vs. Benchmark 4.3%). He concluded his report with the comment that as of March 31, 1995 the SBI was responsible for over \$24 billion in assets.

Executive Director's Administrative Report

Mr. Bicker referred members to Tab B for the Portfolio Statistics and Tab C of the meeting materials for the current budget and travel reports. He noted that revised meeting dates for the remainder of calendar year 1995 were also listed in Tab C. In response to a question from Mr. Carlson, Mr. Bicker stated that the dates had been confirmed by all Board members.

Mr. Bicker reviewed several pieces of legislation that had been enacted during the 1995 Legislative Session which impact the State Board of Investment (SBI). He reported that the SBI's budget had been approved as requested. He said that several statutes regarding contracting procedures for technical and professional contracts had been modified and noted that staff will be working with the Attorney General's Office to assure that the SBI remains in compliance with the revised statutes. Mr. Carlson stated that he is concerned about the Legislature's attempt at micro-management and he asked Mr. Bicker to keep him informed of any problems that arise as a result of this new legislation. Mr. Bicker reported that legislation had passed which prohibits the use of leverage in any of the funds managed by the SBI. He added that this language simply codifies current SBI practice and therefore does not materially affect the SBI's investment authority.

Mr. Bicker stated that the SBI Deputies are recommending that the Board fill the remaining vacancy among Board appointees to the IAC. Ms. Grove moved approval of the recommendation, as stated in the Executive Director's Administrative Report, which reads: "The SBI Deputies recommend that the Board appoint Judith W. Mares to the current vacancy among Board appointees to the IAC." Mr. McGrath seconded the motion. The motion passed.

Administrative Committee Report

Mr. McGrath referred members to Tab D of the meeting materials and reviewed the items needing Board approval. He said that the Committee is recommending that the Board approve the FY96 Executive Director's Workplan as presented and that the workplan serve as the basis for the Executive Director's performance evaluation for FY96. In response to a question from Mr. Carlson, Mr. McGrath stated that he would prefer to present the first set of recommendations prior to making a motion. Mr. Carlson agreed.

Mr. McGrath continued by stating that the Committee is recommending that the Board approve the FY96 Administrative Budget Plan and give the Executive Director the authority to reallocate funds between budget categories as needed. In response to

questions from Mr. Carlson, Mr. Bicker stated that this is the same authority that most agency heads have with respect to administrative budgets. He added that since the SBI's budget is primarily dedicated to salary, rents and leases, and contractual obligations, that in reality there is very little flexibility in reallocating funds. Mr. McGrath added that the SBI Administrative Committee would be providing oversight.

Mr. McGrath stated that the Committee is recommending that the Board adopt the Continuing Fiduciary Education Plan, as presented in the meeting materials. Mr. Carlson noted the annual expense allowance for Board member/designee attendance at seminars and educational forums related to the SBI matters.

Mr. McGrath said that the Committee is also recommending that the Board adopt the same process used for the past few years to conduct the Executive Director's FY95 performance evaluation. He briefly outlined the process and moved approval of the first four recommendations as stated in the Committee Report, which read:

Recommendation 1) "The Committee recommends that the SBI approve the FY96 Executive Director's Workplan. Further, the Committee recommends that the workplan serve as the basis for the Executive Director's performance evaluation for FY96."

Recommendation 2) "The Committee recommends that the SBI approve the FY96 Administrative Budget Plan and that the Executive Director have the flexibility to reallocate funds between budget categories in the event budgetary needs change during the year."

Recommendation 3) "The Committee recommends that the SBI adopt the Continuing Fiduciary Education Plan."

Recommendation 4) "The Committee recommends that the SBI adopt the following process for the Executive Director's FY95 performance evaluation: The evaluation will be completed prior to the September 1995 meeting of the SBI and will be based on the results of the Executive Director's workplan for FY95; the SBI deputies/designees will develop an appropriate evaluation form for use by each member which will reflect the categories in the Executive Director's position description and workplan; as the chair of the Board, the Governor's representative (Department of Finance), will coordinate distribution and collection of the evaluation forms and will forward the completed forms to the Executive Director. Board Members are encouraged to meet individually with the Executive Director to review their own evaluation."

Mr. Carlson noted that a second to the motion is not required. The motion to approve the four recommendations passed.

Mr. McGrath reminded members that at the December 14, 1994 Board meeting, the Board had approved a recommendation to retain TIAA-CREF, VALIC, Great-West and Minnesota Mutual as product providers for the Higher Education retirement plans. He said that the Board had received copies of the final contract documents under separate cover for review. He noted that since the documents were not yet available when the

Committee met there is not a formal recommendation from the Committee. Mr. McGrath moved approval of the four vendor contracts as contained in the "Addendum to the Meeting Materials for June 28, 1995: Proposed Higher Education Contracts". Mr. Humphrey seconded the motion. The motion passed.

Mr. McGrath stated that the Minnesota State Retirement System (MSRS) has recommended the addition of participant plan-to-plan transfers in the Deferred Compensation Plan (DCP) and that Mr. Bergstrom, Executive Director of the MSRS was present at the meeting to answer any questions. He reminded members that the SBI must approve all contracts involving the DCP and he said that the Committee is recommending that the Board approve the contract amendments which allow the plan-to-plan transfers. Mr. Bicker added that the change will provide enhanced service for participants who move from one jurisdiction to another. In response to a question from Ms. Grove, Mr. Bicker confirmed that the transfers would be reciprocal with other states (e.g. transfers would be allowed both into and out of the Plan). Mr. McGrath noted that it gives participants increased portability of their assets. Ms. Grove moved approval of the Committee's recommendation, as stated in the Committee Report, which reads: "The SBI Administrative Committee recommends that the SBI approve the contract amendments with Minnesota Mutual and Great-West as presented in the meeting materials and authorize the SBI Executive Director to execute those amendments." The motion passed.

Passive Manager Review Committee Report

Mr. Sausen referred members to Tab E of the meeting materials and said that during the quarter, the Passive Manager Committee was convened to review the performance of the SBI's current domestic passive stock manager, Wilshire Asset Management. He reported that the Committee interviewed two firms, State Street Global Advisors and Wells Fargo Nikko Investment Advisors as a possible replacement for Wilshire. He added that the Committee is recommending that the SBI terminate its contract with Wilshire and asked that questions be directed to Mr. Bicker.

In response to a question from Mr. Carlson, Mr. Bicker said that a large part of SBI's equity underperformance was due to negative tracking error in the passive component that has been managed by Wilshire. He said that Wilshire is still a good organization, but he noted that the firm is now devoting more time and effort to ventures such as style indexing and other new product offerings. He added that staff is also concerned about organizational changes at the firm and the loss of the firm's senior trader. Mr. Bicker said that staff believes that retaining a new passive manager is an important step towards reversing recent negative tracking error.

In response to a request from Mr. Carlson, Mr. Sausen continued his report by saying that the Committee is recommending that the SBI terminate its contract with Wilshire and that Wells Fargo Nikko be retained to manage the passive portfolio against the Wilshire 5000 stock index. Mr. Carlson asked why the whole portfolio was not indexed. Mr. Bicker said that due to the size of the SBI's assets, it is necessary to have a portion indexed to the market. He emphasized that a fund that is entirely passively managed will underperform over time, due to trading costs that are not reflected in the index. He said that by adding active management and semi-passive management there are opportunities to recoup the

costs of passive management and potentially add some additional value. Mr. Bicker stated that as part of his workplan, an asset allocation study will be conducted and reported to the Board at the September 1995 Board meeting. He said that one area which will be addressed in the study is a possible increase to the international allocation, which, if funded from the domestic stock segment, could result in the domestic equity segment being one-third passively managed, one-third semi-passively managed and one-third actively managed. Mr. Bicker reminded members that recent equity performance was also impacted by moving \$5 billion from bonds to stocks in the Post Retirement Fund. While this was an important part of the restructuring of the fund and its new benefit increase formula, he said that such a large asset allocation change could not be implemented without incurring significant transaction costs. Mr. Carlson said that he believes that any value added to the fund will be a result of asset allocation decisions. Mr. Bicker said most experts agree that 85-95% of a fund's return comes from asset allocation decisions but that still leaves some room to add value through active and semi-passive management. In response to further questions from Mr. Carlson, Mr. Bicker said that with assets of \$24 billion, it is not realistic to expect total fund returns in the top quartile, especially given the levels of risk the Board has been prepared to accept. He added that the Board's long-term objective has been to exceed the median fund in universe comparisons. He said that he believes that is an appropriate measure of success while also maintaining financial soundness of the funds. In response to question from Ms. Growe, Mr. Bicker said that the number of active equity managers may be reduced depending on the outcome of the asset allocation study. Mr. Humphrey moved approval of the Committee's recommendations which read: "The Committee recommends that: SBI terminate its contract with Wilshire Asset Management for passive domestic stock management; that the SBI authorize the executive director, with the assistance from SBI legal counsel, to negotiate and execute a contract with Wells Fargo Nikko Investment Advisors (WFNIA), San Francisco, CA for passive domestic stock management. This recommendation is subject to successful fee negotiations and satisfactory resolution of the ownership structure of WFNIA; and that the SBI direct WFNIA to manage passive domestic stock assets against the Wilshire 5000 stock index. This means that the structure of the domestic stock program will be approximately 50% actively managed, 25% semi-passively managed using the completeness fund benchmark and 25% passively managed against the Wilshire 5000 index." Ms. Growe seconded the motion. The motion passed.

In response to a question from Mr. Humphrey, Mr. Bicker confirmed that discussion of changes in the international segment will take place after the asset allocation study has been completed.

Domestic Manager Committee Report

Ms. Yeomans referred members to Tab F of the meeting materials and reviewed the performance of the domestic stock managers. She said that for the latest year and three years, the current managers underperformed the benchmark and the Wilshire 5000. She added that for the five year period, the current manager group slightly outperformed the Wilshire 5000 but underperformed the benchmark.

Ms. Yeomans reported that in-depth reviews were done on five managers during the quarter: GeoCapital, Jundt Associates, Weiss Peck & Greer, Forstmann-Leff and Lynch

& Mayer. She said that no action is being recommended at this time with respect to GeoCapital, Jundt Associates and Weiss Peck & Greer. However, she said that the Committee is recommending that the SBI convene a special committee to re-interview Forstmann-Leff and Lynch & Mayer as if they were new manager candidates. Ms. Dutcher moved approval of the Committee's recommendation, as stated in the Committee Report, which reads: "In accordance with the SBI's Manager Continuation Policy, the Committee recommends that the SBI convene a special committee to re-interview Forstmann-Leff and Lynch & Mayer. The special committee will make a recommendation to the Board concerning the continuation or termination of the two firms. The special committee should be comprised of a designee of each Board member and at least two members of the Domestic Manager Committee." In response to a question from Ms. Grove, Mr. Bicker confirmed this would be the first time that the re-interview procedure in the Manager Continuation Policy has been used since the policy had been revised in 1993. Mr. McGrath seconded the motion. The motion passed.

Ms. Yeomans stated that three of the SBI's bond managers (BEA Associates, Fidelity Management Trust and TCW) have recently undergone organizational changes. She noted that BEA's changes were the most significant and include the loss of a senior portfolio manager and a merger with another firm. She said that the Committee is recommending that the SBI place BEA Associates on probation. Ms. Grove moved approval of the Committee's recommendation, as stated in the Committee Report, which reads: "The Committee recommends that the SBI place BEA Associates on probation due changes in the bond management team and the personnel associated with the SBI's bond portfolio at that firm." Ms. Dutcher seconded the motion. The motion passed.

Ms. Yeomans reported that earlier this year, the Legislature had restored the SBI's ability to invest in below investment grade debt. She said that staff and the Committee are recommending that the Board grant limited authority to its existing bond managers to invest in BB or B rated debt, if the manager has demonstrated an ability to invest in these types of securities successfully in the past. Mr. Carlson commented that the recommendation addressed the nervousness that many people have about investing in below investment grade debt and he said he felt this was an appropriate way to handle these securities. Mr. Humphrey moved approval of the Committee's recommendation, as stated in the Committee Report, which reads: "The Committee recommends that the SBI adopt the position paper on below investment grade debt and proceed with implementation plan outlined in the recommendation section of that paper." Ms. Grove seconded the motion. The motion passed.

Ms. Yeomans stated that the Committee's final recommendation involves updating the SBI's investment manager guidelines to reflect current SBI practices. She said the revisions include: no use of leverage in the portfolios, more realistic risk/return ratios for the semi-passive stock managers, incorporation of language permitting investment in below investment grade debt, and modifications in the guidelines for the Assigned Risk Plan to reflect the separate management of the stock and bond segments in that fund. Mr. Humphrey said he was concerned about recent reports of banks and other organizations that may be having problems due to their policies on derivatives. He asked staff to ascertain how large the SBI's risk might be with respect to such organizations. Ms.

Dutcher moved approval of the Committee's recommendation, as stated in the Committee Report, which reads: "The Committee recommends that the SBI adopt the revised investment manager guidelines as presented." Mr. McGrath seconded the motion. The motion passed.

Ms. Yeomans noted that a review of the active stock manager benchmarks had been completed and that they were found to be satisfactory. In response to a question from Mr. Carlson, Mr. Bicker confirmed that the managers would be notified of the review and its results.

International/Global Manager Committee Report

Ms. Yeomans referred members to Tab G of the meeting materials and explained that recent underperformance of the international segment was due primarily to underweighting in Japanese stocks and the Japanese yen. She said that the Committee is recommending modifications to the investment guidelines to clarify current policy regarding the use of leverage in the international portfolios. Ms. Growe moved approval of the Committee's recommendation, as stated in the Committee Report, which reads: "The Committee recommends that the SBI adopt the revised manager guidelines as presented." Ms. Dutcher seconded the motion. The motion passed.

Ms. Growe congratulated and thanked the staff for conducting the recent Currency Symposium noting that it was very well done and well attended, including participation by Ms. Dutcher and herself.

Alternative Investment Committee Report

Ms. Yeomans stated that the Committee had no new investments to recommend this quarter. She noted that satisfactory review sessions had been completed with a private equity manager, Coral Group and a real estate manager, Heitman Advisory.

The meeting adjourned at 9:15 a.m.

Respectfully submitted:



Howard J. Bicker
Executive Director

**AGENDA
INVESTMENT ADVISORY COUNCIL
MEETING**

**Monday, September 25, 1995
2:00 P.M. - SBI Conference Room
Room 105, MEA Building - Saint Paul**

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| 1. Approval of Minutes of June 6, 1995 | |
| 2. Report from the Executive Director (H. Bicker) | |
| A. Quarterly Investment Review (April 1 - June 30, 1995) | A |
| B. Portfolio Statistics (June 30, 1995) | B |
| C. Administrative Report | C |
| 1. Budget and travel reports | |
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| 3. Reports from the Investment Advisory Council | |
| A. Asset Allocation Committee (J. Yeomans) | D |
| 1. Review of asset allocation for Basics and Post Funds | |
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| B. Domestic Manager Committee (J. Bohan) | E |
| 1. Review of manager performance | |
| 2. Review required by the Manager Continuation Policy | |
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| C. International Manager Committee (D. Veverka) | F |
| 1. Review of manager performance | |
| 2. Approval of position paper on currency management | |
| D. Alternative Investment Committee (K. Gudorf) | G |
| 1. Results of annual review sessions | |
| 2. Review of Zell/Chilmark and Zell/Merrill Lynch Real Estate | |
| 4. Report from the Currency Manager Search Committee (P. Sausen) | H |
| 5. Report from the Proxy Committee (P. Sausen) | |

**Minutes
Investment Advisory Council
June 6, 1995**

The Investment Advisory Council met on Tuesday, June 6, 1995 at 2:00 P.M. at the Minnesota Judicial Building, Room 230, 25 Constitution Avenue, St. Paul.

MEMBERS PRESENT: Gary Austin; Dave Bergstrom; John Bohan; Ken Gudorf; Laurie Fiori Hacking; Peter Kiedrowski; Laura King; Han Chin Liu; Gary Norstrom; Michael Stutzer; Debbie Veverka and Jan Yeomans.

MEMBERS ABSENT: Malcolm McDonald and Daralyn Peifer.

SBI STAFF: Howard Bicker; Beth Lehman; Jim Heidelberg; John Griebenow, Dan Egeland; Michael Menssen; Lois Buermann; Karen Vnuk; Debbie Griebenow; Charlene Olson and Linda Nadeau.

OTHERS ATTENDING: Ann Posey, Ken Winston, Richards & Tierney; Allan Emkin, PCA Consulting; Christie Eller; Carey Moe; Peter Sausen; Ed Stuart and John Hagman, REAM.

Ms. Yeomans called the meeting to order and the minutes of the March 14, 1995 meeting were approved.

Executive Director's Report

Mr. Bicker, Executive Director, thanked those members who were able to attend the currency symposium that immediately preceded the IAC meeting and he referred members to Tab A of the meeting materials. He reported that the Combined Funds had exceeded inflation over the ten year period ending March 31, 1995 (Combined Funds 11.8% vs. Inflation 3.6%) and slightly outperformed the median fund (Combined Funds 10.1% vs. Median 10.0%) for the most recent five years. He added that the Combined Funds had outperformed its composite index (Combined 10.1% vs. Composite 9.9%) over the same five year period. He reported that the Basic Funds had exceeded their composite index (Basics 10.1% vs. Composite 10.0%) over the last five years while the Post Fund had underperformed its composite index for the period July 1, 1993 - March 31, 1995 (Post 5.9% vs. Composite 6.4%).

Mr. Bicker reported that the Basic Funds' assets increased 6.2% for the quarter ending March 31, 1995 due to positive investment returns and that the asset mix is basically in-line with policy targets. He noted that the bond segment will be slightly overweighted until additional assets are invested in alternative assets. He said that the Basic Funds had

underperformed its composite index for the quarter (Basics 5.6% vs. Composite 6.1%) and year (Basics 7.9% vs. Composite 9.1%).

Mr. Bicker reported that the Post Retirement Fund had increased in value by 5.1% during the quarter due to positive investment returns and that the Fund had rebalanced its asset mix on April 1, 1995. He said the total fund had underperformed its composite index for the quarter (Post Fund 6.3% vs. Composite 6.6%) and year (Post Fund 8.1% vs. Composite 9.3%).

Mr. Bicker stated that the domestic stock manager group underperformed for the quarter (Domestic Stocks 8.5% vs. Wilshire 5000 9.0%) and year (Domestic Stocks 11.5% vs. Wilshire 5000 13.2%). He said the international stock manager group had underperformed its target for the quarter (International Stocks -0.1% vs. EAFE 1.9%) due, in large part, to currency impact. He added that the domestic bond manager group matched its target for the quarter (both at 5.0%).

Mr. Bicker reported that the Assigned Risk Plan (ARP) had outperformed its composite index for the quarter (ARP 5.5% vs. Composite 5.4%) but had underperformed for the year (ARP 6.6% vs. Composite 7.3%). He said that the equity segment of the Assigned Risk Plan (ARP) had slightly underperformed its benchmark for the quarter (Equity Segment 9.5% vs. Benchmark 9.7%) while the bonds had slightly outperformed for the quarter (Bond Segment 4.5% vs. Benchmark 4.3%). He concluded his report with the comment that as of March 31, 1995 the SBI was responsible for over \$24 billion in assets.

Executive Director's Administrative Report

Mr. Bicker referred members to Tab B for the Portfolio Statistics and Tab C of the meeting materials for the current budget and travel reports. He noted that revised meeting dates for the remainder of calendar year 1995 were also listed in Tab C.

Mr. Bicker reviewed several pieces of legislation that had been enacted by the 1995 Legislation which impact the State Board of Investment (SBI). He said that the SBI's budget had been approved as requested and that several statutes regarding contracting procedures for technical and professional contracts had been modified. He added that some technical provisions will impact the SBI and that staff will work with the Attorney General's Office to assure that the SBI remains in compliance with the revised statutes. He also reported that legislation had passed which prohibits the use of leverage in any of the funds managed by the SBI. He said this language simply codifies current SBI practice and therefore does not materially affect the SBI's investment authority.

Mr. Bicker noted that the SBI Deputies will be recommending to the Board that Judith W. Mares be appointed to the IAC at the June 28, 1995 meeting.

Passive Manager Review Committee Report

Mr. Sausen reported that during the last quarter, staff had recommended that Wilshire Asset Management be terminated as the SBI's passive domestic stock manager and that the index fund should be managed to track the Wilshire 5000 target rather than the customized benchmark used for the tilted index fund/completeness fund. He stated that the Committee had concurred with staff recommendations and had considered two firms,

State Street Global Advisors and Wells Fargo Nikko Investment Advisors (WFNIA) as a replacement. Mr. Sausen reported that the Committee is recommending WFNIA as the passive domestic stock manager. He noted that WFNIA is seeking new ownership structure and equity partners for the firm. Mr. Bicker noted that staff will be recommending that the index fund's transition to its new benchmark should be done gradually in order to keep trading costs to a minimum. Ms. King moved approval of the Committee's recommendation, as stated in the Committee Report. Mr. Gudorf seconded the motion. In response to a question from Ms. Veverka, Mr. Bicker stated that staff would prefer not to change the benchmark for the semi-passive equity managers until after the upcoming manager and asset allocation reviews take place. He added that staff does expect some additional tracking error while the fund is in transition. The motion passed.

Domestic Manager Committee

Mr. Bohan referred members to Tab F of the meeting materials and reviewed the four action items from the Committee. He discussed the disappointing equity manager performance and noted that the active equity managers' decisions to hold consumer non-durables contributed to the underperformance of the current quarter. He referred members to page 69 of Tab F in the meeting materials and discussed specific equity manager performance over various time periods. He then briefly reviewed the performance of the bond managers and the emerging manager program.

Mr. Bohan summarized the Committee's recommendations by stating that the Committee is recommending that the SBI place BEA Associates on probation due to the loss of the portfolio manager responsible for the SBI's account. He also reported that during the quarter five active domestic equity managers had been reviewed (Forstmann-Leff, GeoCapital, Jundt Associates, Lynch & Mayer, and Weiss Peck & Greer) and that as a result, staff and the Committee were recommending that the SBI convene a special committee to re-interview Forstmann-Leff and Lynch & Mayer to determine whether or not these two firms should be retained or terminated.

Mr. Bohan continued his summary by saying that the Committee recommends that the position paper on below investment grade debt be adopted, as outlined in the meeting materials. He noted that this would allow staff, with the concurrence of the Domestic Manager Committee, the discretion to grant this authority to individual managers based on the manager's experience and expertise.

Mr. Bohan stated that the investment manager guidelines had been reviewed for accuracy and completeness and that the following changes are being recommended: the addition of language requiring that all purchases of forwards, futures and options be fully collateralized; expected risk/return ratios revised downward on the semi-passive stock managers; bond managers guidelines revised to include limited authority to purchase below investment grade debt; and the guidelines for the Assigned Risk Plan be modified to reflect the separation of the stock and bond segments in that fund.

Mr. Bicker commented that the proposal to add of below investment grade debt was the result of a lengthy process that originated from a Board request in 1993 to review constraints on fund performance. He said this led to a recommendation that the SBI

should seek to have its authority in this area reinstated. He noted that the downward revision in the risk/return ratios for the active and semi-passive stock managers only represents the correction of a technical error and does not reflect a policy change. In response to questions from Mr. Gudorf, Mr. Bicker stated that the addition of below investment grade debt to a manager's portfolio will be handled on a case-by-case basis. He said that staff believes that giving the existing managers authority to make this type of investment is more prudent at this stage than hiring separate managers to invest solely in below investment grade securities. He added that, historically, the Board has preferred to move into new investment areas slowly and to increase allocations after more evidence of any value added has been determined. He said that at some point in the future, the IAC may wish to recommend using separate below investment grade managers. Mr. Bohan said that Mr. Gudorf's point about using specialist managers was discussed at length by the Committee and that the consensus of the group had been to not force a manager into an asset class by virtue of specialization. In response to a question from Ms. King, Mr. Bohan confirmed that the below investment grade debt recommendation only applies to the domestic fixed income portfolios. In response to questions from Ms. Veverka, Mr. Bicker confirmed that the recommendation requires the bonds to be rated BB or B. He added that staff will continue to provide the Committee and the IAC with additional information relating to the authorities given to managers.

Mr. Norstrom moved approval of the Committee's recommendation regarding the revisions of the investment manager guidelines, as stated in the Committee Report. Mr. Stutzer seconded the motion. The motion passed.

Mr. Gudorf moved approval of the Committee's recommendation to adopt the position paper on below investment grade debt, as stated in the Committee Report. Mr. Bohan seconded the motion. The motion passed.

Mr. Gudorf moved approval of the Committee's recommendation to re-interview Forstmann-Leff and Lynch & Mayer, as stated in the Committee Report. Mr. Bergstrom seconded the motion. The motion passed.

Mr. Gudorf moved approval of the Committee's recommendation to place BEA Associates on probation, as stated in the Committee Report. Mr. Stutzer seconded the motion. The motion passed.

Ms. Lehman noted that additional information regarding the review of the active stock manager benchmarks is available but had not been included in the meeting materials. Mr. Bohan added that the Committee had reviewed the analysis and believes that the current benchmarks are satisfactory.

International/Global Manager Committee Report

Ms. Veverka reported that the Committee is recommending that the international investment guidelines also be revised to reflect the prohibition on leverage. She said that the Committee's main focus at the meeting was to discuss what its role would be with regard to both the currency management issue and the upcoming asset allocation review. She noted that the underperformance of the international segment for the last year and since inception is largely due to currency impact. Mr. Bohan moved approval of the Committee's recommendation to revise the investment manager guidelines, as stated in the Committee Report. Mr. Stutzer seconded the motion. The motion passed.

Alternative Investment Committee Report

Mr. Gudorf referred members to Tab H of the meeting materials and noted that the Committee has no action items for the Board at this time. He said reviews were held with a private equity manager, Coral Group and a real estate manager, Heitman Advisory. He noted that Heitman is implementing a new strategy whereby some of their mall properties are being transferred into a real estate investment trust (REIT) in an effort to enhance returns.

In response to questions from Ms. Hacking, about the Domestic Manager Committee report, Mr. Bicker explained that the decision to have the semi-passive managers manage to the tilted index fund benchmark should help to eliminate much of the embedded costs in the management of the fund and that the semi-passive managers are agreeable to this change.

Mr. Gudorf noted that there are still funds available for investment in the Alternative investment area and he said the Committee would welcome information on any attractive investment opportunities from the IAC members.

Mr. Bicker stated that discussions regarding currency management will continue and that a tentative date for an Asset Allocation Committee meeting has been set for August 9, 1995. He noted that several major issues will be discussed in the coming months and he said staff appreciate the continuing high level of commitment from the IAC members.

The meeting adjourned at 3:00 P.M.

Respectively Yours,



Howard J. Bicker
Executive Director

Tab A

RETURN OBJECTIVES

Period Ending 6/30/95

COMBINED FUNDS: \$21.3 Billion	Return	Compared to Objective
<p>Provide Real Return (10 yr.)</p> <p>Provide returns that are 3-5 percentage points greater than inflation over moving 10 year periods.</p>	11.8% (1)	8.3 percentage points above target
<p>Exceed Median Fund (5 yr.)</p> <p>Outperform the median fund from a universe of public and corporate funds with a balanced asset mix over moving 5 year periods.</p>	10.6% (1)	equals target Rank: 54th percentile (2)
<p>Exceed Composite Index (5 yr.)</p> <p>Outperform a composite market index weighted in a manner that reflects the actual asset mix of the Combined Funds over moving 5 year periods.</p>	10.6% (1)	0.1 percentage points above target

BASIC RETIREMENT FUNDS: \$11.1 Billion	Return	Compared to Objective
<p>Exceed Composite Index (5 Yr.)</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>	10.6%	0.1 percentage points above target

POST RETIREMENT FUND: \$10.2 Billion	Return	Compared to Objective
<p>Exceed Composite Index</p> <p>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>	8.9% (3)	0.3 percentage points below target (3)

(1) Reflects performance of Basic Funds only through 6/30/93, Combined Funds thereafter.

(2) The SBI's stated performance objective is to rank in the top half (above 50th percentile) of the comparative universe. The SBI will strive to achieve performance which ranks in the top third (above 33rd percentile).

(3) Since asset allocation transition was completed, 7/1/93, annualized.

ACTUARIAL VALUATIONS

MSRS, TRA, PERA General Plans June 30, 1994

	Active (Basics)	Retired (Post)	Total (Basics & Post)
Liability Measures			
1. Current and Future Benefit Obligation	\$16.5 billion	\$7.5 billion	\$24.0 billion
2. Accrued Liabilities	11.7	7.5	19.2
Asset Measures			
3. Current and Future Actuarial Value	\$15.7 billion	\$7.5 billion	\$23.2 billion
4. Current Actuarial Value	8.0	7.5	15.5
Funding Ratios			
Future Obligations vs. Future Assets (3 ÷ 1)	95%	100%	97%
Accrued Liabilities vs. Current Actuarial Value (4 ÷ 2)	68%	100%	81%*

* 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 **82%** for the Basics, **100%** for the Post and **90%** 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

EXECUTIVE SUMMARY

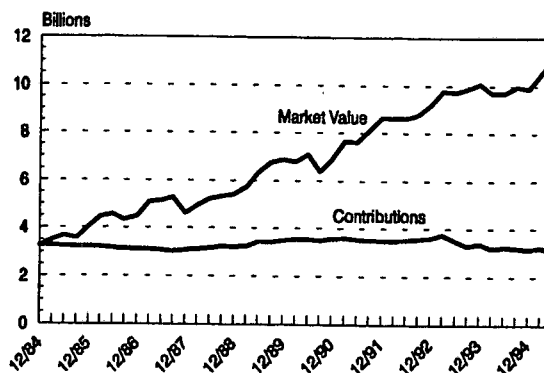
Basic Retirement Funds

Asset Growth

The market value of the Basic Funds increased 5.9% during the second quarter of 1995. Positive investment returns accounted for the increase during the period.

Asset Growth During Second Quarter 1995 (Millions)

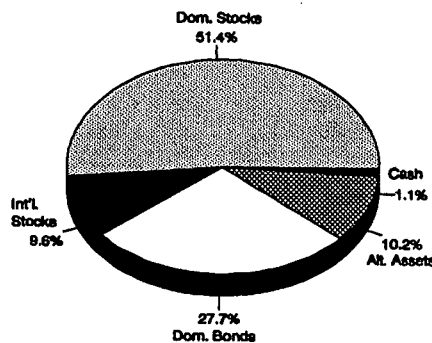
Beginning Value	\$10,508
Net Contributions	-84
Investment Return	705
Ending Value	\$11,129



Asset Mix

Domestic stocks and cash are slightly over the policy target. International stocks are slightly under the policy target. Bonds will exceed their target until alternative assets increase.

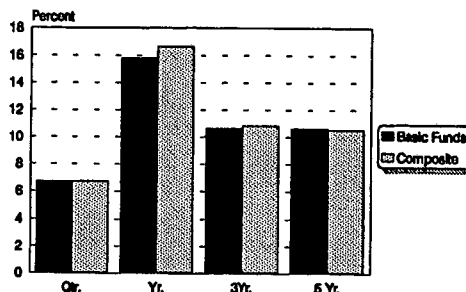
	Policy Asset Mix	Actual Mix 6/30/95	Actual Market Value (Millions)
Domestic Stocks	50.0%	51.4%	\$5,722
Int'l. Stocks	10.0	9.6	1,074
Bonds	24.0	27.7	3,079
Alternative Assets	15.0	10.2	1,130
Unallocated Cash	1.0	1.1	124
	100.0%	100.0%	\$11,129



Fund Performance

The Basic Funds matched its composite market index for the quarter and trailed it for the year.

	Qtr.	1 Yr.	3 Yr.	5 Yr.
Basics	6.7%	15.8%	10.6%	10.6%
Composite	6.7	16.6	10.8	10.5



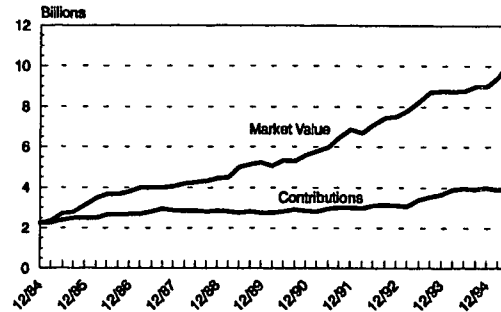
EXECUTIVE SUMMARY
Post Retirement Fund

Asset Growth

The market value of the Post Fund increased 8.0% during the second quarter of 1995. The increase resulted from positive net contributions and investment returns.

Asset Growth
During Second Quarter 1995
(Millions)

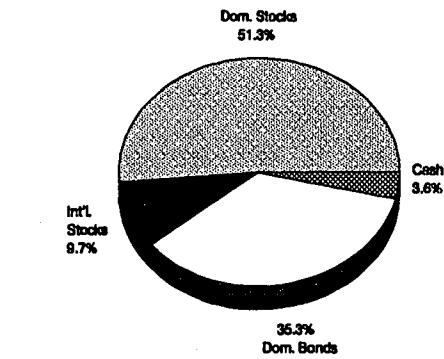
Beginning Value	\$9,460
Net Contributions	79
Investment Return	677
Ending Value	\$10,216



Asset Mix

Domestic stocks and cash are slightly over the policy target while international stocks are slightly under. Bonds will exceed their target until alternative assets increase.

	Policy	Actual	Actual
	Asset	Mix	Market Value
	Mix	6/30/95	(Millions)
Domestic Stocks	50.0%	51.3%	\$5,240
Int'l. Stocks	10.0	9.7	989
Bonds	32.0	35.3	3,607
Alternative Assets	5.0	0.1	13
Unallocated Cash	3.0	3.6	367
	100.0%	100.0%	\$10,216



Fund Performance

The Post Fund outperformed its composite market index for the quarter and trailed it for the year.

	Qtr.	1 Yr.	Since 7/1/93*
Post Fund	7.2%	16.7%	8.9%
Composite	7.0	17.2	9.2



* Date asset allocation transition to 50% domestic common stocks was completed.

EXECUTIVE SUMMARY

Stock and Bond Manager Performance

Domestic Stocks

The domestic stock manager group (active, semi-passive and passive combined) trailed its target for the quarter and year.

	Qtr.	1 Yr.	3 Yr.	5 Yr.
Dom. Stocks	9.0%	23.0%	12.9%	11.5%
Wilshire 5000*	9.3	24.7	13.5	12.1

* Buy/hold index adjusted for liquor and tobacco restrictions through 3/31/93 and AHP restriction through 10/31/93.

International Stocks

The international stock manager group (active and passive combined) outperformed its target for the quarter and for the year.

	Qtr.	1 Yr.	Since Incept.*
Int'l Stocks	2.8%	2.9%	13.2%
EAFE-Free	0.8	1.7	13.3

* since 10/1/92.

Domestic Bonds

The domestic bond manager group (active and semi-passive combined) matched its target for the quarter and trailed its target for the year.

	Qtr.	1 Yr.	3 Yr.	5 Yr.
Bonds	6.1%	12.5%	8.0%	9.9%
Lehman Agg.*	6.1	12.6	7.6	9.5

* Prior to July 1, 1994, the Salomon Broad Investment Grade Bond Index was used.

Note: The above returns reflect the performance of the Basic Funds' managers through 6/30/93 and of the Combined Funds (Basic and Post) since 7/1/93.

Wilshire 5000: The Wilshire 5000 stock index reflects the performance of all publicly traded stocks of companies domiciled in the U.S.

EAFE: The Morgan Stanley Capital International index of 20 stock markets in Europe, Australia and the Far East. EAFE-Free includes only those securities foreign investors are allowed to hold.

Lehman Aggregate: The Lehman Brothers Aggregate Bond Index reflects the performance of all investment grade (BAA or higher) bonds, U.S. treasury and agency securities and mortgage obligations with maturities greater than one year.

EXECUTIVE SUMMARY

Assigned Risk Plan

Investment Objectives

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.

	6/30/95 Target	6/30/95 Actual
Stocks	20.0%	22.1%
Bonds	80.0	77.6
Unallocated Cash	0.0	0.3
Total	100.0%	100.0%

Investment Management

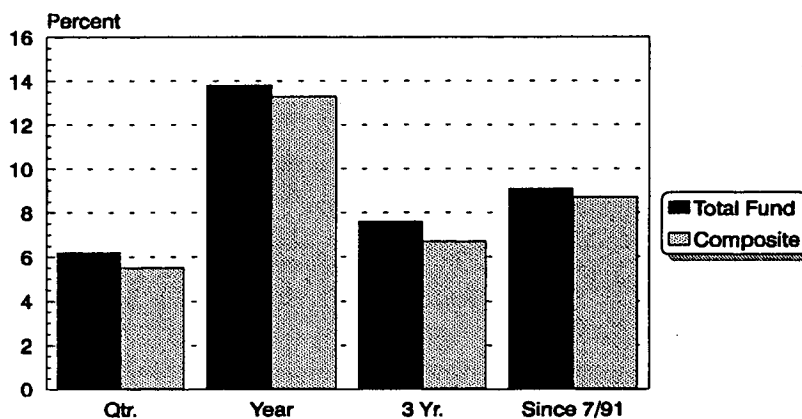
Voyageur Asset Management has managed the bond segment of the Fund since inception while GE Investment Management has managed the equity segment since 1/95. The entire portfolio was transferred from the Department of Commerce to the SBI on May 1, 1991.

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 Voyageur Asset Management. The equity benchmark is the S&P 500 as of July 1, 1994. Prior to that date, the segment used a custom benchmark. The total fund benchmark is a combination of the fixed income and equity benchmarks, weighted according to the asset allocation target.

Market Value

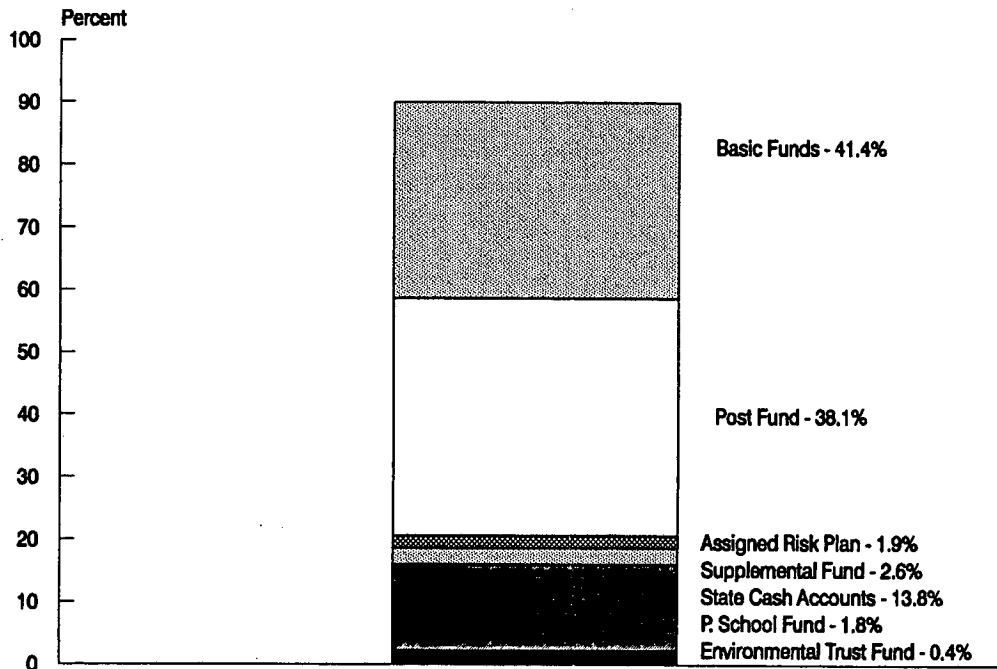
On June 30, 1995 the market value of the Assigned Risk Plan was \$513 million.



Period Ending 6/30/95

	Qtr.	Yr.	3 Yr.	Since 7/1/91
Total Fund	6.2%	13.8%	7.6%	9.1%
Composite Index	5.5	13.3	6.7	8.7
Equity Segment	9.5	25.9	9.6	10.2
Benchmark	9.5	26.1	10.3	11.0
Bond Segment	5.3	10.8	7.0	8.8
Benchmark	4.5	10.2	6.6	8.1

EXECUTIVE SUMMARY
Funds Under Management



6/30/95
Market Value
(Billions)

Basic Retirement Funds	\$11.1
Post Retirement Fund	10.2
Assigned Risk Plan	0.5
Supplemental Investment Fund	0.7
State Cash Accounts	3.7
Permanent School Fund	0.5
Environmental Trust Fund	0.1
Total	\$26.8

MINNESOTA STATE BOARD OF INVESTMENT

QUARTERLY INVESTMENT REPORT

Second Quarter 1995

(March 31, 1995 — June 30, 1995)

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VARIOUS CAPITAL MARKET INDICES

	Period Ending 6/30/95				
	Qtr.	Yr.	3 Yr.	5 Yr.	10 Yr.
Domestic Equity					
Wilshire 5000	9.3%	24.7%	13.6%	12.3%	13.9%
Dow Jones Industrials	10.3	29.2	14.3	13.0	17.0
S&P 500	9.5	26.1	13.3	12.1	14.6
Russell 2000	9.4	20.1	16.5	12.9	11.2
Domestic Fixed Income					
Lehman Aggregate	6.1	12.6	7.5	9.4	10.0
Lehman Gov't./Corp.	6.5	12.8	7.9	9.6	10.0
90 Day U.S. Treasury Bills	1.4	5.4	3.9	4.7	6.0
International					
EAFE**	0.7	1.7	12.7	5.7	16.0
Salomon Non U.S. Gov't. Bond	4.9	22.7	13.8	15.6	16.6
Inflation Measure					
Consumer Price Index***	0.7	3.0	2.8	3.3	3.5

* Lehman Brothers Aggregate bond index

** Morgan Stanley Capital International index of Europe, Australia and the Far East (EAFE)

*** Consumer Price Index (CPI) for all urban consumers, also known as CPI-U.

FINANCIAL MARKETS REVIEW

DOMESTIC STOCKS

For the quarter, the stock market generated strong positive returns. The increase was due to economic indicators showing that the economy was slowing down which caused the market to gain confidence that inflation would not increase materially. This caused the bond market to rally in anticipation that the Federal Reserve would lower interest rates. In addition to lower interest rates, the market expected second quarter earnings reports to be strong causing all sectors of the market to record positive returns. The top performing sectors of the market were the financials (due to lower interest rates) and technology (due to expected high secular growth rates). The weakest sector of the market was energy.

The Wilshire 5000 provided a 9.3% return for the quarter. Performance among the different Wilshire Style Indexes for the quarter are shown below:

Large Value	9.0%
Small Value	7.9
Large Growth	10.4
Small Growth	11.3

The Wilshire 5000 increased 24.7% during the latest year.

DOMESTIC BONDS

Returns for the quarter were high as interest rates fell. It appears that the economy is slowing, making inflation less of a threat. In that environment, investors are more willing to buy bonds, which contributes to a decline in interest rates. The yield curve steepened with two year rates declining 1.0% and long rates declining 0.8%.

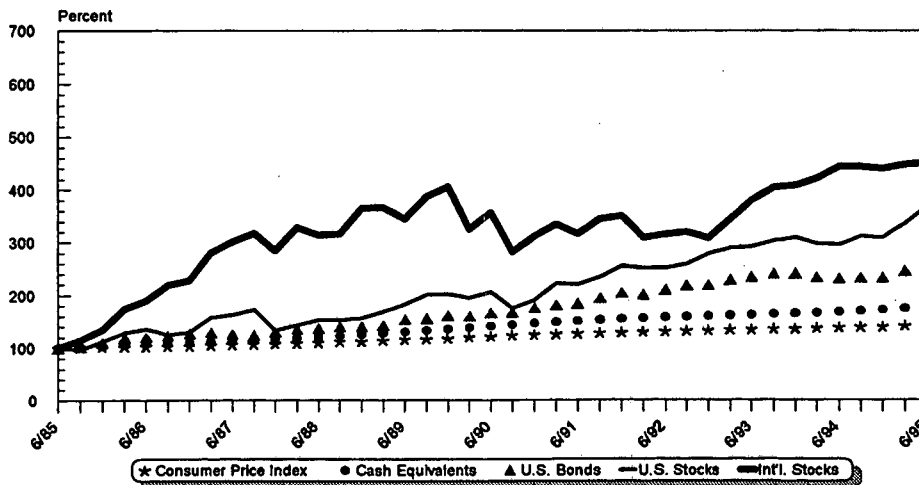
Overall, the Lehman Brothers Aggregate Bond Index increased 6.1% for the quarter. The Lehman Aggregate sector returns for the quarter were:

Treasury/Agency	6.2%
Corporates	7.4
Mortgages	5.2

The Lehman Aggregate increased 12.6% for the latest year.

PERFORMANCE OF CAPITAL MARKETS

Cumulative Returns



Indices used are: Morgan Stanley's Index of Europe, Australia and the Far East (EAFE); Wilshire 5000 Index; Lehman Brothers Aggregate 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 0.7% for the quarter. As shown below, performance varied widely among the major markets:

Japan	-6.3%
United Kingdom	3.9
Germany	8.3
France	0.7

The EAFE index increased by 1.7% during the latest year. The index is compiled by Morgan Stanley Capital International and is a measure of 20 markets located in Europe, Australia and the Far East (EAFE). The major markets listed above comprise about 75% of the value of the international markets in the index.

REAL ESTATE

Nationally, many real estate markets are improving. Property types most favored by buyers at the present time include apartments, industrial parks and suburban office buildings. Real estate investing by institutions is picking up after a long dry spell.

PRIVATE EQUITY

According to the *Private Equity Analyst*, "total commitments to private equity partnerships of all kinds soared 51% in 1994 to \$19.4 billion. That's a new record, surpassing the previous peak of \$17.5 billion set in 1987." So far, 1995 looks to be another strong year for commitments to private equity partnerships.

RESOURCE FUNDS

Crude oil prices averaged \$18.25 per barrel during the quarter compared to \$17.17 per barrel a year earlier. Natural gas prices were weak during the quarter averaging \$1.63 per thousand cubic feet versus an unusually strong \$1.95 per thousand cubic feet a year earlier.

COMBINED FUNDS

The "Combined Funds" represent the assets of both the Basic and Post Retirement Funds. While the Combined Funds do not exist under statute, the Board finds it instructive to review asset mix and performance of all defined benefit pension assets under its control. This more closely parallels the structure of other public and corporate pension plan assets and therefore allows for more meaningful comparison with other pension fund investors.

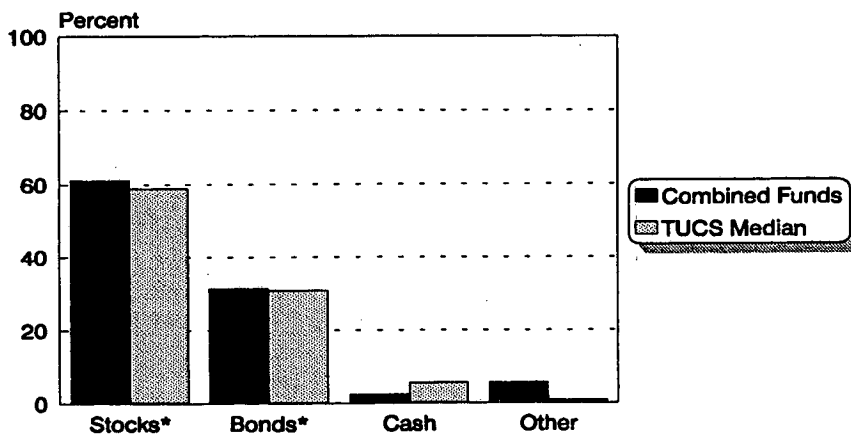
The comparison universe used by the SBI is the Master Trust portion of the Trust Universe Comparison Service (TUCS). This universe contains information on more than 200 public and corporate pension and trust funds with a balanced asset mix.

Asset Mix Compared to Other Pension Funds

On June 30, 1995, the actual asset mix of the Combined Funds was:

	\$ Millions	%
Domestic Stocks	\$10,962	51.3%
International Stocks	2,063	9.7
Bonds	6,686	31.3
Alternative Assets	1,143	5.4
Unallocated Cash	491	2.3
Total	\$21,345	100.0%

Comparisons of the Combined Funds' asset mix to the median allocation to stocks, bond and other assets of the public and corporate funds in TUCS on June 30, 1995 are shown below:



	Stocks*	Bonds*	Cash	Other
Combined Funds	61.0%	31.3%	2.3%	5.4%
Median Allocation in TUCS	58.8	30.7	5.4	0.7

* Both domestic and international.

**COMBINED FUNDS
Performance Compared to Other Pension Funds**

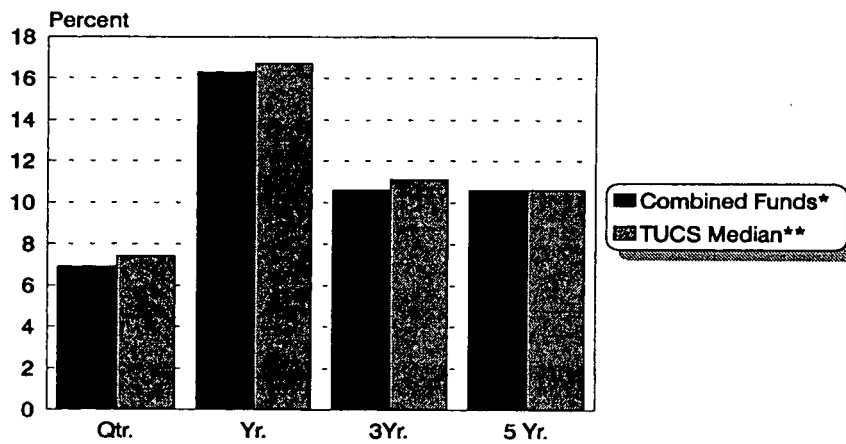
While the SBI is naturally concerned with how its returns compare to other pension investors, universe comparison data should be used with great care. There are several reasons why such comparisons will provide an "apples to oranges" look at performance:

- **Differing Treatment of Fees.** All SBI returns in this report are shown *after* all management fees while TUCS data is reported *before* fees. If the SBI reported returns before fees, its returns and rankings would be *higher* than those shown in this report.
- **Differing Allocations.** Asset allocation will have a dominant effect on return. The allocation to stocks among the funds in TUCS typically ranges from 20-90%, a very wide range for meaningful comparison.

In addition, it appears that many funds do not include alternative asset holdings in their reports to TUCS. This further distorts comparisons among funds.

- **Differing Goals/Liabilities.** Each pension fund structures its portfolio to meet its own liabilities and risk tolerance. This will result in different choices on asset mix. Since asset mix will largely determine investment results, a universe ranking is not relevant to a discussion of how well a plan sponsor is meeting its long-term liabilities.

With these considerations in mind, the performance of the Combined Funds compared to other public and corporate pension funds in TUCS are shown below:



Period Ending 6/30/95

Annualized

	Qtr.	Yr.	3 Yr.	5 Yr.
Combined Funds Return*	6.9%	16.3%	10.6%	10.6%
TUCS Median Fund Return**	7.4	16.7	11.1	10.6
Percentile Rank in TUCS	65th	56th	59th	54th

* After fees. Includes Basic Funds only through 6/30/93, Basic and Post thereafter.
 ** Before fees

The SBI's stated performance objective is that the Combined Funds will rank in the top half of the universe (above the 50th percentile) over the most recent

five year period. The SBI will strive to achieve performance which ranks in the top third (above the 33rd percentile).

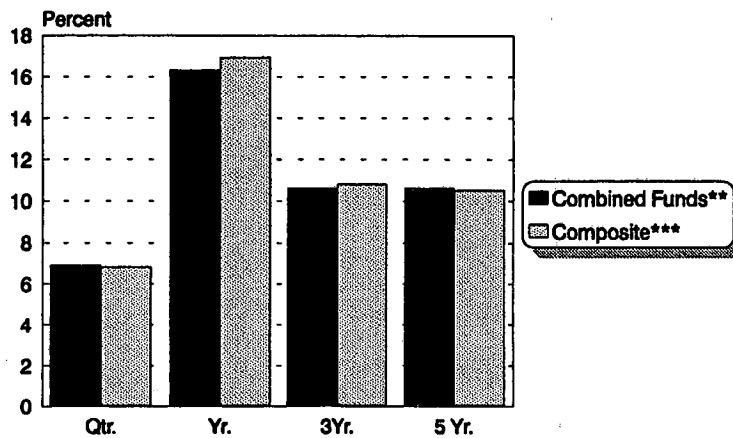
COMBINED FUNDS*
Performance Compared to Composite Index

The Combined Funds' performance is evaluated relative to a composite of market indices. The composite is

weighted in a manner that reflects the asset allocation of the Combined Funds:

	Market Index	Combined Index Weights 2Q95
Domestic Stocks	Wilshire 5000	50.0%
Int'l. Stocks	EAFE-Free	10.0
Domestic Bonds	Lehman Aggregate	32.1*
Alternative Assets	Wilshire Real Estate	2.4*
	Venture Capital Funds	3.0*
	Resource Funds	0.5*
<u>Unallocated Cash</u>	<u>91 Day T-Bills</u>	<u>2.0</u>
		100.0%

* Alternative asset and bond weights are reset in the composite at the start of each quarter to reflect the amount of unfunded commitments in alternative asset classes.



Period Ending 6/30/95

	Annualized			
	Qtr.	Yr.	3 Yr.	5 Yr.
Combined Funds**	6.9%	16.3%	10.6%	10.6%
Composite Index***	6.8	16.9	10.8	10.5

**Includes performance of Basic Funds through 6/30/93, Basic and Post Funds thereafter.

***Adjusted to reflect the SBI's restrictions on liquor and tobacco stocks through 3/31/93 and AHP restriction through 10/31/93.

BASIC RETIREMENT FUNDS

Investment Objectives

The Basic Retirement Funds are composed of the retirement assets for currently working participants in eight statewide retirement funds. The Funds serve as accumulation pools for the pension contributions of public employees and their employers during the employees' years of active service. Approximately 250,000 public employees participate in the Basic Funds.

Employee and employer contribution rates are specified in state law as a percentage of an employee's salary. The rates are set so that contributions plus expected investment earnings will cover the projected cost of promised pension benefits. In order to meet these

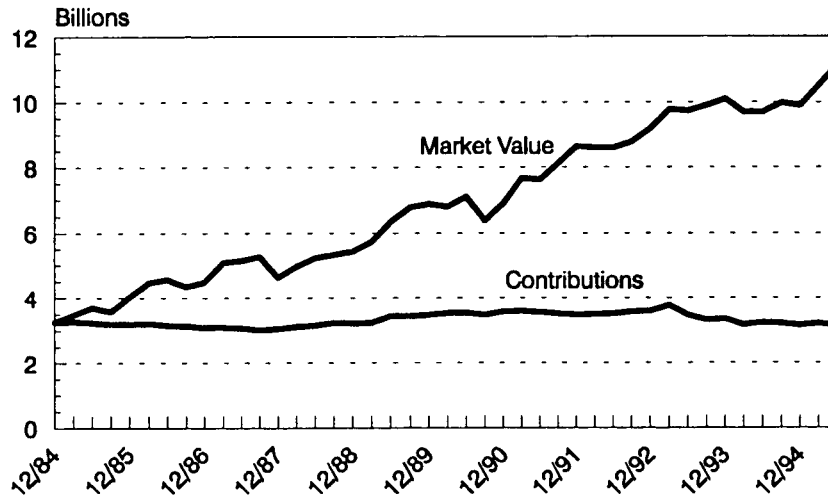
projected pension costs, the Basic Retirement Funds must generate investment returns of at least 8.5% on an annualized basis, over time.

Normally, pension assets will accumulate in the Basic Retirement Funds for thirty to forty years during an employee's years of active service. This provides the Basic Funds with a long investment time horizon and permits the Board to take an aggressive, high expected return investment policy which incorporates a sizeable equity component in order to meet or exceed its actuarial return target.

Asset Growth

The market value of the Basic Retirement Funds' assets increased 5.9% during the second quarter of 1995.

Positive investment returns accounted for the increase.



	Last Five Years						Latest Qtr.
	In Millions						
	12/90	12/91	12/92	12/93	12/94	3/95	6/95
Beginning Value	\$6,875	\$6,919	\$8,639	\$9,191	\$10,086	\$9,890	\$10,508
Net Contributions	91	-92	-34	-239	-206	63	-84
Investment Return	-47	1,812	586	1,134	-10	555	705
Ending Value	\$6,919	\$8,639	\$9,191	\$10,086	\$9,890	\$10,508	\$11,129

BASIC RETIREMENT FUNDS

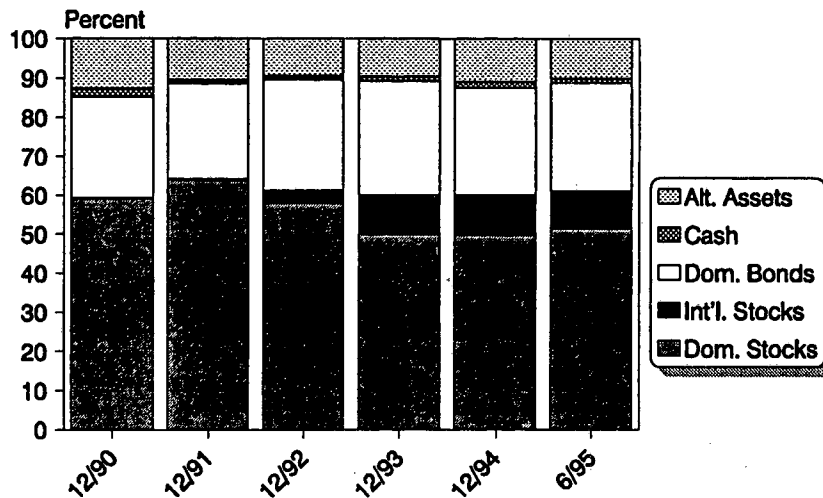
Asset Mix

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 allocation targets are designed to add value to the Basic Funds over their long-term investment time horizon.

The actual asset mix changed slightly from the prior quarter due to rebalancing activity that occurred in April 1995.

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.



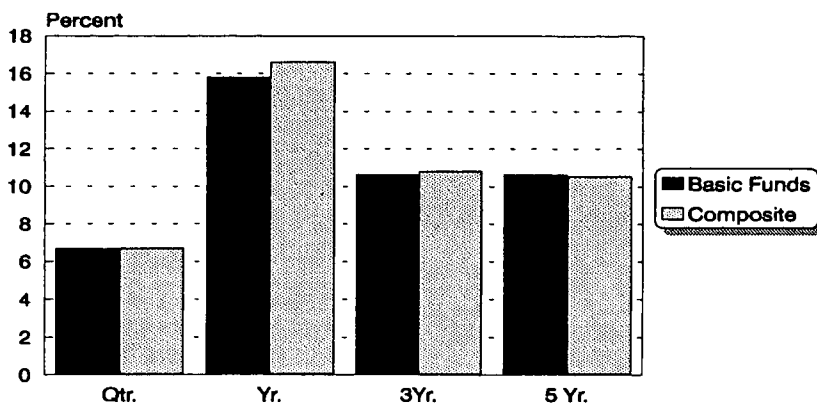
	Last Five Years						Latest Qtr.
	12/90	12/91	12/92	12/93	12/94	3/95	6/95
Domestic Stocks	59.1%	63.9%	57.9%	49.9%	49.7%	49.0%	51.4%
Int'l. Stocks	0.0	0.0	3.2	10.0	10.3	9.4	9.6
Domestic Bonds	26.2	24.7	28.5	29.4	27.5	30.3	27.7
Real Estate	7.0	4.8	4.2	4.1	4.6	4.3	4.2
Private Equity	4.2	4.7	4.2	4.6	5.6	5.6	5.1
Resource Funds	1.5	1.1	1.2	1.1	0.9	0.8	0.9
Unallocated Cash	2.0	0.8	0.8	0.9	1.4	0.6	1.1
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

BASIC RETIREMENT FUNDS
Total Fund Performance

The Basic Funds' performance is evaluated relative to a composite of market indices. The composite is weighted in a manner that reflects the long-term asset allocation of the Funds:

	Basics Target	Market Index	Basics Composite 2Q95
Domestic Stocks	50.0%	Wilshire 5000	50.0%
Int'l. Stocks	10.0	EAFE-Free	10.0
Domestic Bonds	24.0	Lehman Aggregate	28.5*
Alternative Assets	15.0	Wilshire Real Estate	4.2*
		Private Equity Funds	5.5*
		Resource Funds	0.8*
Unallocated Cash	1.0	91 Day T-Bills	1.0
	100.0%		100.0%

* Alternative asset and bond weights are reset in the composite each quarter to reflect the amount of unfunded commitments in alternative asset classes.



Period Ending 6/30/95

	Annualized			
	Qtr.	Yr.	3 Yr.	5 Yr.
Basic Funds	6.7%	15.8%	10.6%	10.6%
Composite Index**	6.7	16.6	10.8	10.5

**Adjusted to reflect the SBI's restrictions on liquor and tobacco stocks through 3/31/93 and AHP restriction through 10/31/93.

Effective July 1, 1993, the Basic and Post Funds share the same stock, domestic bond and international stock managers. See page 14 for the performance of these asset pools. Performance of the Basic Funds' alternative assets is on page 15.

POST RETIREMENT FUND

The Post Retirement Investment Fund contains the pension assets of retired public employees covered by statewide retirement plans. Approximately 60,000 retirees receive monthly annuities from the assets of the Fund.

Upon an employee's retirement, a sum of money sufficient to finance the fixed monthly annuity is 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 on an annualized basis. If the Post Fund exceeds this earnings rate, excess earnings are used to finance permanent benefit increases for eligible retirees.

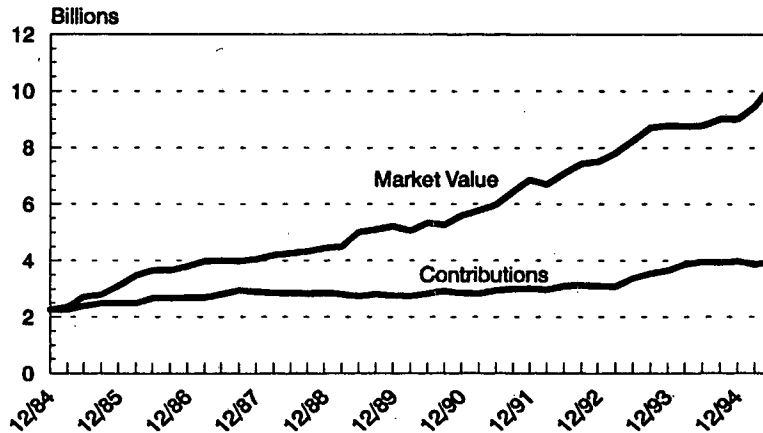
Through fiscal year 1992, unrealized capital gains (or losses) were excluded from the statutory definition of earnings. For this reason the Post Fund previously was not designed to maximize long-term total rates of return. Rather, the SBI attempted to generate a high, consistent stream of realized earnings for the Post Fund that maintained current benefits, as well as produced benefit increases over time.

Beginning in fiscal year 1993, the post retirement benefit increase formula is 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 substantial commitment to common stocks. The transition to the new asset allocation strategy was completed by the start of fiscal year 1994 (7/1/93).

Asset Growth

The market value of the Post Retirement Fund increased by 8.0% during the second quarter of 1995.

The increase was due to positive net contributions and investment returns.



	In Millions						Latest Qtr.
	12/90	12/91	12/92	12/93	12/94	3/95	6/95
Beginning Value	\$5,238	\$5,590	\$6,855	\$7,500	\$8,766	\$9,001	\$9,460
Net Contributions	88	162	95	386	314	-100	79
Investment Return	264	1,103	550	880	-79	559	677
Ending Value	\$5,590	\$6,855	\$7,500	\$8,766	\$9,001	\$9,460	\$10,216

POST RETIREMENT FUND

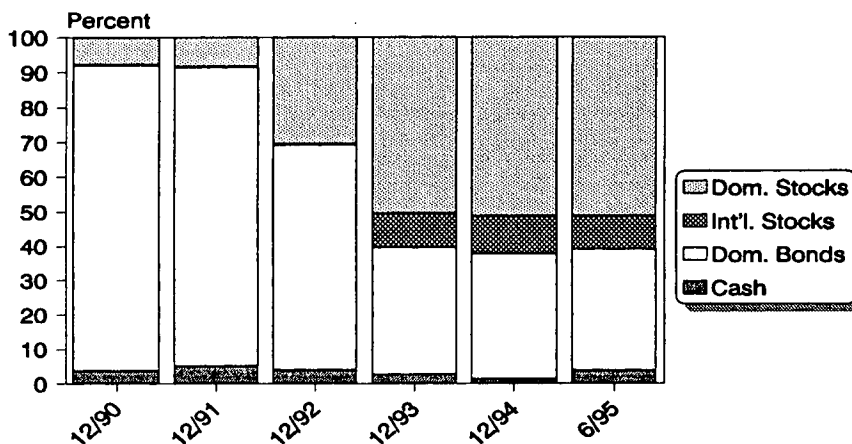
Asset Mix

The Board adopted a new asset allocation strategy for the Post Fund in fiscal year 1993 which 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 moved toward a 50% allocation to common stocks. In fiscal year 1994, the Board added allocations to international stocks and alternative investments.

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.

Funding for alternative assets began first quarter 1994. The allocation in domestic stocks, international stocks and domestic bonds changed from the prior quarter due to rebalancing activity that occurred in April 1995.

Domestic Stocks	50.0%
Int'l. Stocks	10.0
Domestic Bonds	32.0
Alternative Assets	5.0
Unallocated Cash	3.0
Total	100.0%



Note: Alt. Investments are 0.1% beginning 12/94.

	Last Five years					Latest Qtr.	
	12/90	12/91	12/92	12/93	12/94	3/95	6/95
Dom. Stocks	7.9%	8.5%	30.6%	50.5%	51.2%	54.9%	51.3%
Int'l. Stocks	0.0	0.0	0.0	10.0	11.0	10.6	9.7
Dom. Bonds	88.5	80.0	65.6	36.9	36.5	33.0	35.3
Alt. Assets	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Unallocated Cash	3.6	5.0	3.8	2.6	1.2	1.4	3.6
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

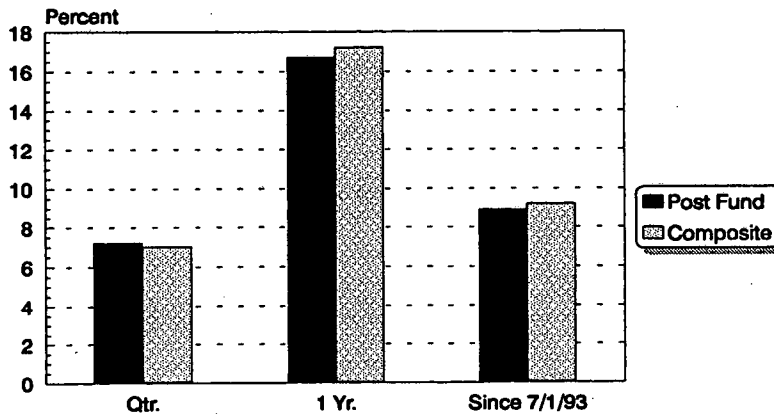
POST RETIREMENT FUND
Total Fund Performance

The Post Fund's performance is evaluated relative to a composite of market indices. The composite is weighted in a manner that reflects the long-term asset allocation of the Fund:

Asset Class	Post Target	Market Index	Post Composite 2Q95
Domestic Stocks	50%	Wilshire 5000	50.0%
Int'l. Stocks	10	EAFE-Free	10.0
Domestic Bonds	32	Lehman Aggregate	37.0*
Alternative Assets	5	---	0.0*
Unallocated Cash	3	91 Day T-Bills	3.0
	100%		100.0%

* Until the alternative asset allocation is fully funded, the composite will be overweighted in bonds.

The asset mix of the Post Fund was moved toward a 50% stock allocation during fiscal year 1993 and in fiscal year 1994, a 10% international stock allocation was added. The performance of the fund since 7/1/93 is shown below.



	Qtr.	1 Yr.	Since 7/1/93
Post Fund	7.2%	16.7%	8.9%
Composite Index	7.0	17.2	9.2

Effective July 1, 1993, the Basic and Post Funds share the same domestic stock, domestic bond and international stock managers. See page 14 for the performance of these asset pools.

STOCK AND BOND MANAGERS
Performance of Asset Pools

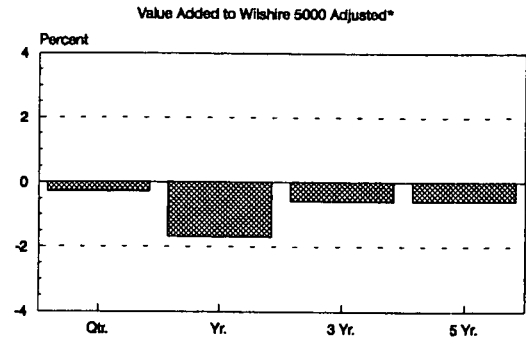
Domestic Stock Pool

Target: Wilshire 5000 Adjusted*

Expectation: If half of the pool is actively managed and half is passively and semi-passively managed, the entire pool is expected to exceed the target by +.25-.55% annualized, over time.

	Qtr.	Yr.	Annualized	
			3 Yrs.	5 Yrs.
Stock Pool	9.0%	23.0%	12.9%	11.5%
Wilshire 5000*	9.3	24.7	13.5	12.1

*Buy/hold index adjusted for liquor and tobacco restrictions through 3/31/93 and AHP restriction through 10/31/93.



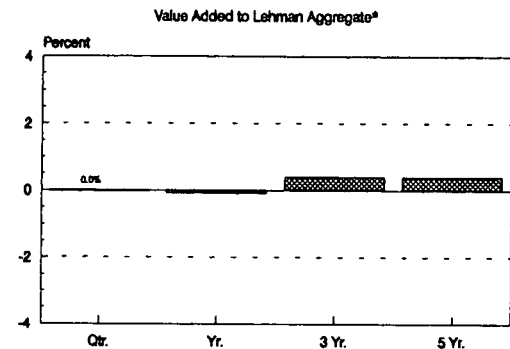
Domestic Bond Pool

Target: Lehman Brothers Aggregate Bond Index

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

	Qtr.	Yr.	Annualized	
			3 Yrs.	5 Yrs.
Bond Pool	6.1%	12.5%	8.0%	9.9%
Lehman Aggregate*	6.1	12.6	7.6	9.5

* Prior to July 1, 1994, the Salomon Broad Investment Grade Bond Index was used.

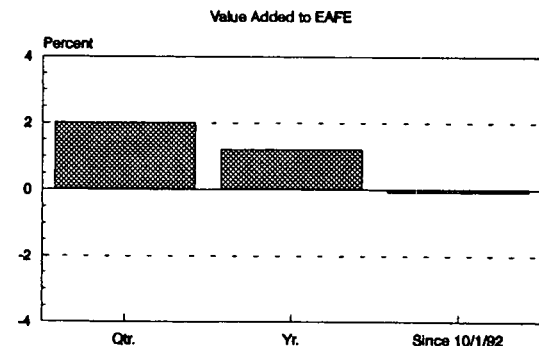


International Stock Pool

Target: EAFE-Free

Expectation: If half of the pool is managed actively and half managed passively, the entire pool is expected to exceed the target by +.25-.75% annualized, over time.

	Qtr.	Yr.	Since 10/1/92
Int'l. Pool	2.8%	2.9%	13.2%
EAFE-Free	0.8	1.7	13.3



**ALTERNATIVE ASSET MANAGERS
Performance of Asset Pools**

Real Estate Pool (Basic Funds only)

Expectation: Real estate investments 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.

	Qtr.	Yr.	Annualized	
			3 Yrs.	5 Yrs.
Real Estate	1.6%	6.5%	-0.2%	-3.1%
Real Estate Index	1.6	4.6	-1.1	-4.0
Inflation	0.7	3.0	2.8	3.3

Private Equity Pool (Basic Funds only)

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 programs in the mid-1980's. Some of the investments, therefore, are relatively immature and returns may not be indicative of future results.

	Qtr.	Yr.	Annualized	
			3 Yrs.	5 Yrs.
Private Equity	-0.4%	6.4%	6.2%	17.0%

Resource Pool (Basic Funds only)

Expectation: Resource investments (primarily oil and gas) are expected to exceed the rate of inflation by 3-5% annualized, over the life of the investment.

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

	Qtr.	Yr.	Annualized	
			3 Yrs.	5 Yrs.
Resource Funds	17.4%	14.3%	9.1%	12.3%

ASSIGNED RISK PLAN

Investment Objectives

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.

	6/30/95 Target	6/30/95 Actual
Stocks	20.0%	22.1%
Bonds	80.0	77.6
Unallocated Cash	0.0	0.3
	100.0%	100.0%

Investment Management

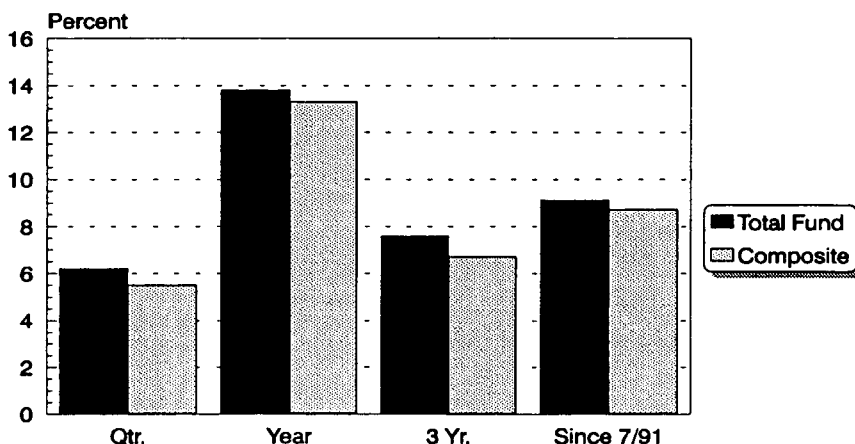
Voyageur Asset Management has managed the bond segment of the Fund since inception while GE Investment Management has managed the equity segment since 1/95. The portfolio was transferred from the Department of Commerce to the SBI on May 1, 1991.

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 Voyageur Asset Management. The equity benchmark is the S&P 500 as of July 1, 1994. Prior to that date, the segment used a custom benchmark. The total fund benchmark is a combination of the fixed income and equity benchmarks, weighted according to the asset allocation target.

Market Value

On June 30, 1995 the market value of the Assigned Risk Plan was \$513 million.



	Period Ending 6/30/95			
	Qtr.	Yr.	3 Yr.	Since 7/1/91
Total Account	6.2%	13.8%	7.6%	9.1%
Composite	5.5	13.3	6.7	8.7
Equity Segment	9.5	25.9	9.6	10.2
Benchmark	9.5	26.1	10.3	11.0
Bond Segment	5.3	10.8	7.0	8.8
Benchmark	4.5	10.2	6.6	8.1

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:

1. It functions as the investment manager for all assets of the Unclassified Employees Retirement Plan, Public Employees Defined Contribution Plan and Hennepin County Supplemental Retirement Plan.
2. It is one investment vehicle offered to employees as part of the state's Deferred Compensation Plan, the Individual Retirement Account Plan and College Supplemental Retirement Plan.
3. 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. They are net of investment management fees but they do not include a deduction from asset based charges used to defray costs of the administering retirement organizations.

On June 30, 1995 the market value of the entire fund was \$683 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.

International Share Account - a portfolio of non U.S. stocks that incorporates both active and passive management.

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 Combined Funds. The Account seeks to maximize long-term real rates of return, while limiting short-run portfolio return volatility.

Asset Mix

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

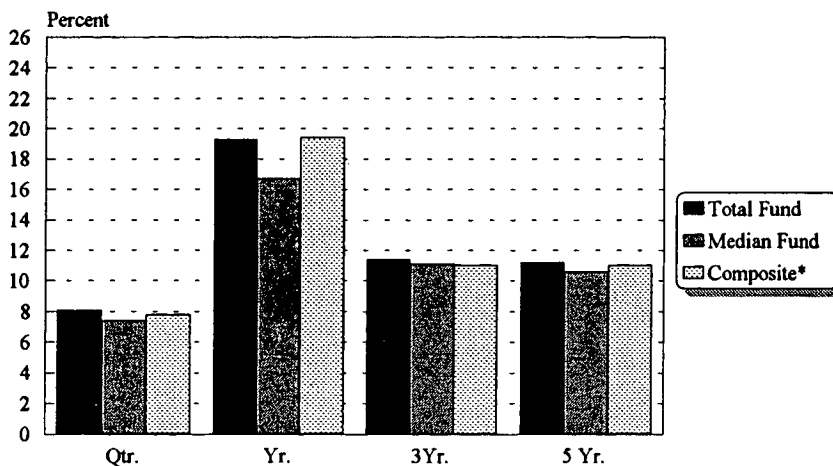
Investment Management

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

Market Value

On June 30, 1995 the market value of the Income Share Account was \$331 million.

	Target	Actual
Stocks	60.0%	63.4%
Bonds	35.0	33.4
Unallocated Cash	5.0	3.2
	100.0%	100.0%



	Period Ending 6/30/95			
	Qtr.	Yr.	3 Yr.	5 Yr.
Total Account	8.1%	19.3%	11.4%	11.2%
Median Fund*	7.4	16.7	11.1	10.6
Composite**	7.8	19.4	11.0	11.0
Equity Segment	9.1	24.3	13.9	12.4
Wilshire 5000***	9.3	24.7	13.5	12.1
Bond Segment	6.9	12.4	8.1	9.8
Lehman Aggregate	6.1	12.6	7.6	9.5

*TUCS Median Master Trust

**60% Wilshire 5000/35% Lehman Aggregate Bond Index/5% T-Bills Composite. Wilshire 5000 is adjusted as noted below.

*** Buy/hold index adjusted for liquor and tobacco restrictions through 3/31/93 and AHP restriction through 10/31/93.

Note: Prior to 7/1/94 the Salomon BIG was the benchmark and a component of the Composite.

SUPPLEMENTAL INVESTMENT FUND
Growth Share Account

Investment Objective

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

Asset Mix

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

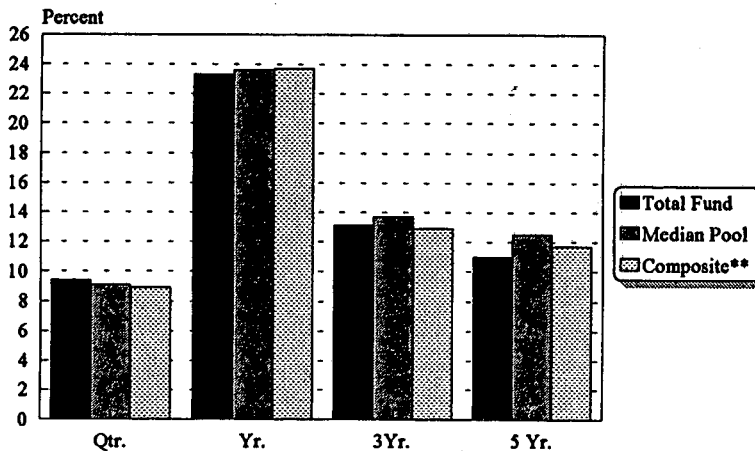
Investment Management

Throughout the period shown below, the entire Account has been managed by the same group of active external stock managers utilized by the Basic and Post Retirement Funds. Prior to April 1988, other active managers controlled a substantial portion of the account.

Market Value

On June 30, 1995 the market value of the Growth Share Account was \$125 million.

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



Period Ending 6/30/95

	Annualized			
	Qtr.	Yr.	3 Yr.	5 Yr.
Total Account	9.4%	23.3%	13.1%	11.0%
Median Pool*	9.1	23.6	13.7	12.5
Composite**	8.9	23.7	12.9	11.7

* TUCS Median Equity Pool

** 95% Wilshire 5000/5% T-Bills Composite. Wilshire 5000 buy/hold index is adjusted for liquor and tobacco restrictions through 3/31/93 and AHP restriction through 10/31/93.

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.

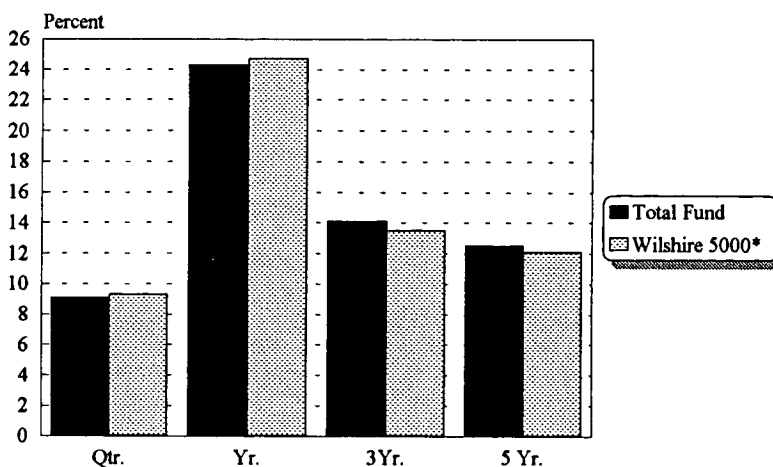
The Account is invested 100% in common stock.

Investment Management

Until July 1995, the entire Account was managed by Wilshire Associates as part of a passively managed index fund. Since July 1995, the Account is managed by Wells Fargo Nikko Investment Advisors.

Market Value

On June 30, 1995 the market value of the Common Stock Index Account was \$67 million.



	Period Ending 6/30/95			
	Annualized			
	Qtr.	Yr.	3 Yr.	5 Yr.
Total Account	9.1%	24.3%	14.1%	12.5%
Wilshire 5000*	9.3	24.7	13.5	12.1

*Buy/hold index adjusted for liquor and tobacco restrictions through 3/31/93 and AHP restriction through 10/31/93.

SUPPLEMENTAL INVESTMENT FUND
International Share Account

Investment Objective and Asset Mix

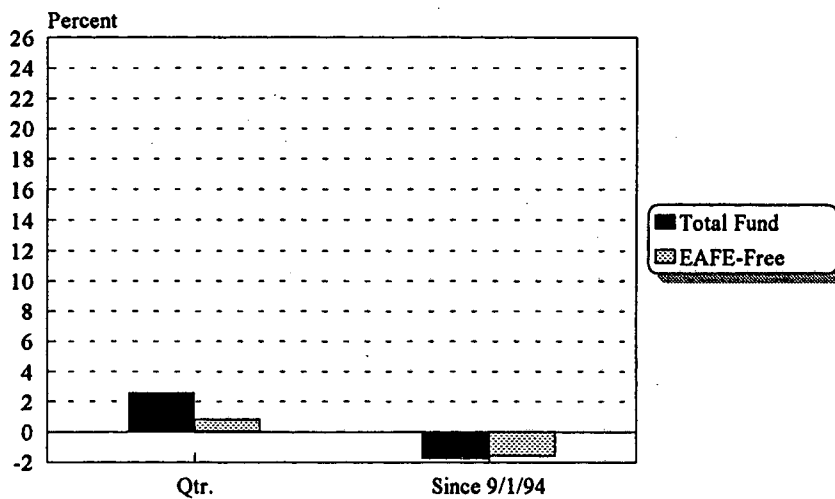
The investment objective of the International Share Account is to earn a high rate of return by investing in the stock of companies outside the U.S. Approximately half of the Account is "passively managed" and is designed to track the return of 20 markets included in the Morgan Capital International index of Europe, Australia and the Far East (EAFE-Free). The remainder of the Account is "actively managed" by several international managers who buy and sell stocks in an attempt to maximize market value.

Investment Management

The Account was opened for contributions in September 1994. Beginning October 1994, the Account uses the same group of international active and passive international stock managers as the Basic and Post Retirement Funds.

Market Value

On June 30, 1995 the market value of the International Share Account was \$10 million.



Period Ending 6/30/95

	Qtr.	Since 9/1/94
Total Account	2.6%	-1.8%
EAFE Free	0.8	-1.6

SUPPLEMENTAL INVESTMENT FUND
Bond Market Account

Investment Objective

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

Investment Management

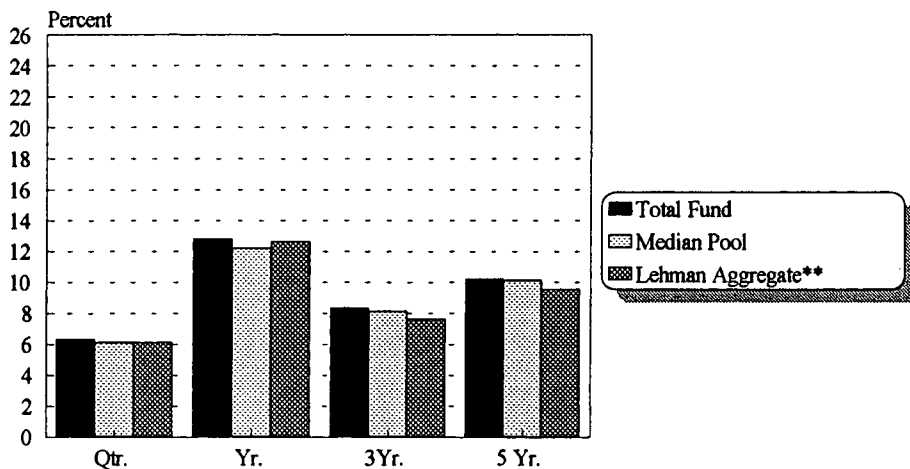
The entire Account is managed by the same group of active external bond managers utilized by the Basic and Post Retirement Funds.

Asset Mix

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

Market Value

On June 30, 1995 the market value of the Bond Market Account was \$22 million.



Period Ending 6/30/95

Annualized

Qtr. Yr. 3 Yr. 5 Yr.

Total Account	6.3%	12.8%	8.3%	10.2%
Median Pool*	6.1	12.2	8.1	10.1
Lehman Aggregate**	6.1	12.6	7.6	9.5

* TUCS Median Fixed Income Pool

** Prior to July 1, 1994, the Salomon Broad Investment Grade Index was used.

SUPPLEMENTAL INVESTMENT FUND
Money Market Account

Investment Objective

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

Asset Mix

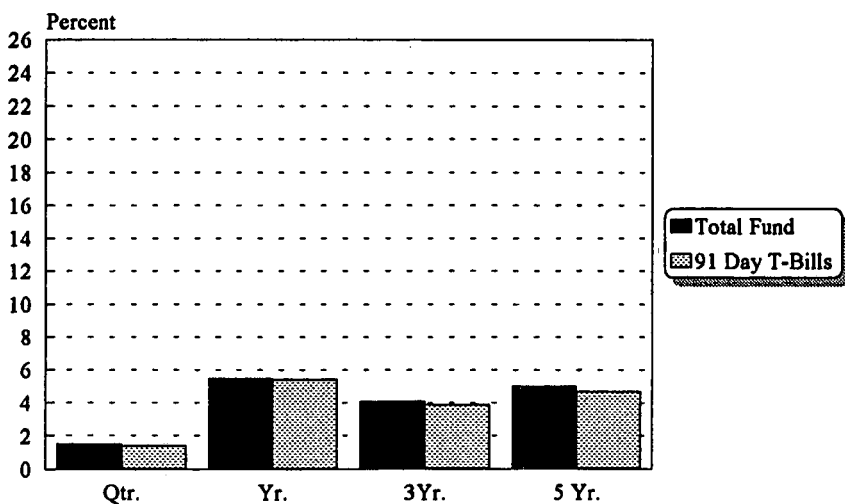
The Money Market Account is invested entirely in high quality short-term investments such as U.S. Treasury Bills, bank certificates of deposit, repurchase agreements, and high grade commercial paper. The average maturity of these investments is 30 to 60 days.

Investment Management

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

Market Value

On June 30, 1995 the market value of the Money Market Account was \$55 million.



Period Ending 6/30/95

Annualized

Qtr. Yr. 3 Yr. 5 Yr.

Total Account	1.5%	5.5%	4.1%	5.0%
91 Day T-Bills	1.4	5.4	3.9	4.7

SUPPLEMENTAL INVESTMENT FUND

Fixed Interest Account

Investment Objectives

The investment objectives of the Fixed Interest Account are to protect investors from loss of their original investment and to provide competitive interest rates using somewhat longer term investments than typically found in a money market account.

Asset Mix

The Fixed Interest Account is invested in guaranteed investment contracts (GIC's) offered by major U.S. insurance companies and banks and GIC type investments. Effective November 1, 1994 new contributions into the Account are deposited into a new pool of GIC's and GIC-type investments. The pool has a blend of maturities and a credited interest rate that changes monthly. The two existing GIC's will remain in place and will mature in October 1995 and October 1996, respectively.

Investment Management

Since November 1, 1994, the new portfolio of GIC's and GIC-type investments has been managed by Norwest Investment Management.

Market Value

On June 30, 1995 the market value of the Fixed Interest Account was \$73 million.

Existing Contracts

Contract Period	Annual Effective Interest Rate	Manager
Nov. 1, 1992-Oct. 31, 1995	5.280%	Norwest Bank Minnesota
Nov. 1, 1993-Oct. 31, 1996	4.625% (blended rate)	Principal Mutual/Hartford Life

Blended Portfolio	Annualized Credited Interest Rate
Nov. 94	5.750%
Dec.	6.790
Jan. 95	6.790
Feb.	7.310
Mar.	6.910
Apr.	6.900
May	6.690
Jun.	7.012

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 Permanent School Fund continues to hold only fixed income securities with the Lehman Aggregate as a benchmark.

Investment Management

The entire fund is managed by the SBI investment staff.

Asset Growth

The market value of the Permanent School Fund's assets increased 7.8% during the second quarter due to positive net contributions and investment returns.

Asset Growth During Second Quarter 1995 (Millions)

Beginning Value	\$406.7
Net Contributions	2.7
Investment Return	29.2
Ending Value	\$438.6

Bond Segment Performance

The quarterly return was 7.2% vs. 6.1% for the Lehman Aggregate. For the year, the portfolio returned 14.1% vs. 12.6% for the Aggregate. At the quarter's-end, the portfolio had a current yield of 7.11%, duration of 5.2 years, and a AAA quality rating. The portfolio has 49% in cash and Treasury securities with the remainder primarily distributed among mortgages, industrials and utilities.

Bond Portfolio Statistics 6/30/95

Value at Market	\$438.6 million
Value at Cost	402.0
Average Coupon	7.91%
Current Yield	7.11
Yield to Maturity	6.59
Average Time to Maturity	12.02
Duration	5.20
Average Quality Rating	AAA
Number of Issues	108
Treasury & Cash	49.0%
Agency	0.0
Corporate	18.0
Mortgages	33.0
Total	100.0%

ENVIRONMENTAL TRUST FUND

Investment Objective

The Environmental Trust Fund's objective is to produce a growing level of spendable income, within the constraints of maintaining adequate portfolio quality and liquidity.

Asset Mix

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

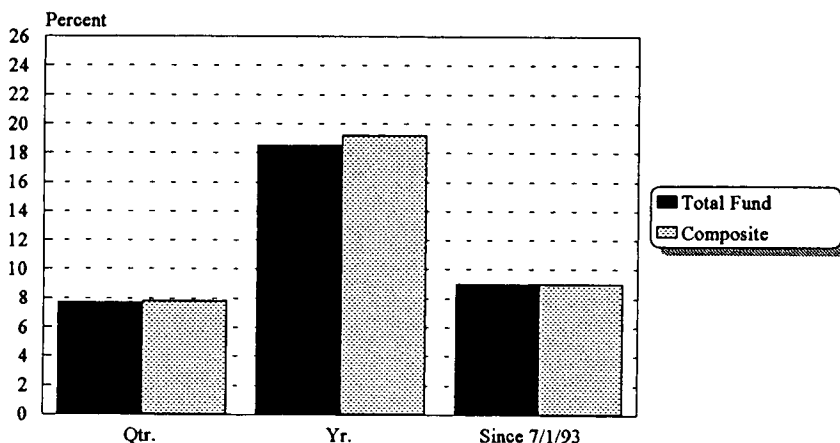
Investment Management

SBI staff manage all assets of the Environmental Trust Fund. The bond segment is actively managed to add incremental value through sector, security and yield curve decisions. The stock segment is passively managed to track the performance of the S&P 500.

Market Value

On June 30, 1995 the market value of the Environmental Trust Fund was \$109 million.

	Target	Actual
Stocks	50.0%	47.8%
Bonds	50.0	43.2
Unallocated Cash	0.0	9.0
	100.0%	100.0%



Period Ending 6/30/95

	Qtr.	1 Yr.	Since 7/1/93
Total Fund	7.7%	18.5%	9.0%
Composite	7.8	19.2	9.0
Equity Segment	9.4	26.0	13.1
Benchmark	9.5	26.1	13.1
Bond Segment	6.8	12.7	6.4
Benchmark	6.1	12.6	5.5

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:

1. Trust Fund Pool contains the cash balances of retirement-related accounts managed internally and cash balances in the Permanent School Fund.
2. 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 6/30/95

	Market Value (Millions)	Qtr.	Yr.	3 Yrs. Annualized
Treasurer's Cash Pool	\$3,193	1.7%	5.8%	4.5%
Trust Fund Cash Pool	103	1.5	5.6	4.8
Benchmark*		2.0	6.2	NA
91-Day T-Bills		1.4	5.4	3.9

* 75% State Street Short Term Investment Fund/25% 1-3 Year Treasuries. This benchmark was established in April 1993. The Investment Advisory Council (IAC) intend to review the appropriateness of this benchmark in FY96. Until that time, the IAC believes that the pools should continue to be monitored against 91-Day T-Bills.

Tab B

PORTFOLIO STATISTICS

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I. Composition of State Investment Portfolios 6/30/95	1
II. Cash Flow Available for Investment 4/1/95 - 6/30/95	4
III. Monthly Transactions and Asset Summary - Retirement Funds	5

MINNESOTA STATE BOARD OF INVESTMENT
Composition of State Investment Portfolios By Type of Investment
Market Value June 30, 1995 (in Millions)

	Cash And Short Term Securities	Bonds Internal	Bonds External	Stocks Internal	Stocks External	External Int'l.	Alternative Assets	Total
BASIC RETIREMENT FUNDS:								
Teachers Retirement Fund	\$55,142 1.15%	-0-	\$1,312,024 27.47%	-0-	\$2,455,919 51.42%	\$458,782 9.60%	\$494,672 10.36%	\$4,776,539 100%
Public Employees Retirement Fund	\$26,829 1.14%	-0-	\$655,108 27.79%	-0-	\$1,211,417 51.40%	\$228,016 9.67%	\$235,656 10.00%	\$2,357,026 100%
State Employees Retirement Fund	\$25,604 1.14%	-0-	\$626,861 27.79%	-0-	\$1,159,185 51.40%	\$218,185 9.67%	\$225,561 10.00%	\$2,255,396 100%
Public Employees Police & Fire Fund	\$11,572 1.05%	-0-	\$307,307 27.82%	-0-	\$568,268 51.44%	\$106,961 9.68%	\$110,558 10.01%	\$1,104,666 100%
Highway Patrol Retirement Fund	\$9 0.01%	-0-	\$47,146 28.30%	-0-	\$86,054 51.66%	\$16,410 9.85%	\$16,962 10.18%	\$166,581 100%
Judges Retirement Fund	\$136 1.14%	-0-	\$3,327 27.79%	-0-	\$6,152 51.40%	\$1,158 9.67%	\$1,197 10.00%	\$11,970 100%
Public Employees P.F. Consolidated	\$3,896 1.16%	\$280 0.08%	\$92,946 27.68%	\$19 0.01%	\$172,567 51.40%	\$32,481 9.67%	\$33,572 10.00%	\$335,761 100%
Correctional Employees Retirement	\$1,378 1.14%	-0-	\$33,676 27.79%	-0-	\$62,272 51.40%	\$11,721 9.67%	\$12,115 10.00%	\$121,162 100%
POST RETIREMENT FUND	\$367,019 3.59%	-0-	\$3,606,736 \$35.30%	13,462 0.13%	\$5,239,785 51.29%	\$989,174 9.69%	\$-0-	\$10,216,176 100%
TOTAL BASIC & POST	\$491,585 2.30%	\$280 0.00%	\$6,685,131 31.32%	\$13,481 0.06%	\$10,961,619 51.35%	\$2,062,888 9.67%	\$1,130,293 5.30%	\$21,345,277 100%

	Cash And Short Term Securities	Bonds Internal	Bonds External	Stocks Internal	Stocks External	External Int'l.	Alternative Assets	Total
MINNESOTA SUPPLEMENTAL FUNDS:								
Income Share Account	\$10,481 3.16%	-0-	\$110,816 33.45%	-0-	\$209,977 63.39%	-0-	-0-	\$331,274 100%
Growth Share Account	\$6,181 4.95%	-0-	-0-	-0-	118,639 95.05%	-0-	-0-	\$124,820 100%
Money Market Account	\$55,319 100%	-0-	-0-	-0-	-0-	-0-	-0-	\$55,319 100%
Common Stock Index Account	-0-	-0-	-0-	-0-	\$67,124 100%	-0-	-0-	\$67,124 100%
Bond Market Account	-0-	-0-	\$22,191 100%	-0-	-0-	-0-	-0-	\$22,191 100%
International Share Account	-0-	-0-	-0,-	-0-	-0-	9,462 100%	-0-	\$9,462 100%
Fixed Interest Account	-0-	-0-	\$72,902 100%	-0-	-0-	-0-	-0-	\$72,902 100%
TOTAL SUPPLEMENTAL FUNDS	\$71,981 10.54%	-0-	\$205,909 30.14%	-0-	\$395,740 57.93%	9,462 1.39%	-0-	\$683,092 100%
TOTAL RETIREMENT FUNDS	\$563,566 2.56%	\$280 0.00%	\$6,891,040 31.28%	\$13,481 0.06%	\$11,357,359 51.56%	\$2,072,350 9.41%	\$1,130,293 5.13%	\$22,028,369 100%

	Cash And		Bonds Internal	Bonds External	Stocks Internal	Stocks External	External Int'l.	Alternative Assets	Total
	Short Term Securities								
ASSIGNED RISK PLAN	\$15,997 3.12%	-0-	\$391,667 76.35%	-0-	-0-	\$105,349 20.53%	-0-	-0-	\$513,013 100%
ENVIRONMENTAL FUND	\$9,810 9.00%	\$47,072 43.20%	-0-	\$52,088 47.80%	-0-	-0-	-0-	-0-	\$108,970 100%
PERMANENT SCHOOL FUND	\$56,691 12.92%	\$381,925 87.08%	-0-	-0-	-0-	-0-	-0-	-0-	\$438,616 100%
TREASURERS CASH	\$3,198,342 100%	-0-	-0-	-0-	-0-	-0-	-0-	-0-	\$3,198,342 100%
HOUSING FINANCE AGENCY	\$35,276 17.37%	\$167,764 82.63%	-0-	-0-	-0-	-0-	-0-	-0-	\$203,040 100%
MINNESOTA DEBT SERVICE FUND	\$2,810 13.17%	\$18,525 86.83%	-0-	-0-	-0-	-0-	-0-	-0-	\$21,335 100%
MISCELLANEOUS ACCOUNTS	\$93,787 36.33%	\$164,342 63.67%	-0-	-0-	-0-	-0-	-0-	-0-	\$258,129 100%
GRAND TOTAL	\$3,976,279 14.85%	\$779,908 2.91%	\$7,282,707 27.21%	\$65,569 0.25%	\$11,462,708 42.82%	\$2,072,350 7.74%	\$1,130,293 4.22%	\$26,769,814 100%	

**STATE OF MINNESOTA
STATE BOARD OF INVESTMENT**

**Net Cash Flow Available For Investment
April 1, 1995 - June 30, 1995**

Teachers Retirement Fund	(\$123,050,000.00)
Public Employees Retirement Fund	19,000,000.00
State Employees Retirement Fund	20,000,000.00
Public Employees Police & Fire	4,000,000.00
Highway Patrol Retirement Fund	(1,500,000.00)
Judges Retirement Fund	0.00
Public Employees P&F Consolidated	(2,500,000.00)
Correctional Employees Retirement Fund	0.00
Post Retirement Fund	79,021,795.55
Supplemental Retirement Fund - Income	(2,203,713.33)
Supplemental Retirement Fund - Growth	(979,578.75)
Supplemental Retirement Fund - Money Market	(259,844.02)
Supplemental Retirement Fund - Index	1,550,952.93
Supplemental Retirement Fund - Bond Market	(6,253.89)
Supplemental Retirement Fund - Fixed Interest,	4,351,387.59
Supplemental Retirement Fund - International	825,763.49
Total Retirement Funds Net Cash Flow	(1,749,490.43)
Assigned Risk Plan	2,764,315.91
Permanent School Fund	2,721,308.81
Total Net Cash Flow	\$3,736,134.29

**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 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
January 1993	-138	158	20	40	2.6	44.0	53.4	17,617
February	-253	266	13	2	2.6	42.9	54.5	17,811
March	-272	335	63	70	2.6	40.7	56.7	18,180
April	-412	423	11	8	2.6	38.9	58.5	18,101
May	-206	200	-6	1	2.5	37.2	60.3	18,387
June	-250	210	-40	15	2.8	36.3	60.9	18,573
July	-17	-26	-43	20	3.1	36.4	60.5	18,649
August	0	10	10	-12	3.0	36.0	61.0	19,183
September	6	1	7	-15	2.8	36.2	61.0	19,216
October	-23	101	78	-21	2.3	35.8	61.9	19,433
November	-426	460	34	-22	2.0	34.0	64.0	19,032
December	-113	158	45	73	2.1	32.8	65.1	19,486
January 1994	-1	1	0	14	2.1	32.3	65.6	20,105
February	-26	-25	-51	10	2.5	32.1	65.4	19,735
March	-3	14	11	1	2.5	32.4	65.1	19,051
April	37	186	223	132	2.0	31.9	66.1	19,285
May	0	-24	-24	-11	2.1	31.8	66.1	19,349
June	-13	0	-13	-6	2.1	32.2	65.7	19,038
July	0	4	4	25	2.2	32.0	65.8	19,507
August	0	-1	-1	-18	2.1	31.3	66.6	19,982
September	0	25	25	-30	1.8	31.5	66.7	19,581
October	0	2	2	22	1.9	30.9	67.2	19,824
November	0	0	0	-41	1.7	31.8	66.5	19,324
December	2	14	16	7	1.7	31.7	66.6	19,493
January 1995	1	10	11	-11	1.5	32.0	66.5	19,681
February	1	0	1	-1	1.5	31.8	66.7	20,249
March	2	18	20	-18	1.3	31.5	67.2	20,607
April	1	-305	-304	-6	2.7	31.2	66.1	21,049
May	0	13	13	14	2.6	31.5	65.9	21,681
June	8	-12	-4	-3	2.6	31.3	66.1	22,028

Tab C

EXECUTIVE DIRECTOR'S ADMINISTRATIVE REPORT

DATE: September 18, 1995

TO: Members, State Board Investment

FROM: Howard Bicker

1. Budget Reports

A final report on the SBI's administrative budget for the fiscal year ended June 30, 1995 is in **Attachment A**. The SBI ended the year approximately \$31,400 under budget.

A report on the SBI's FY96 administrative budget for the period ending August 31, 1995 is included as **Attachment B**.

2. Travel Report

A travel report for the period from May 15, 1995 - August 15, 1995 is included as **Attachment C**.

3. Board Meeting Dates for Calendar 1995.

The quarterly meetings of the SBI/IAC for the remainder of calendar 1995 have been scheduled for:

IAC

SBI

Tuesday, December 12, 1995

Wednesday, December 20, 1995

All Board members have indicated their availability for the above dates.

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ATTACHMENT A

**STATE BOARD OF INVESTMENT
FISCAL YEAR 1995 ADMINISTRATIVE BUDGET REPORT
GENERAL FUND APPROPRIATION
FISCAL YEAR FINAL**

ITEM	FISCAL YEAR 1995 BUDGET	FISCAL YEAR 1995 EXPENDITURES
PERSONAL SERVICES		
CLASSIFIED EMPLOYEES	\$ 345,000	\$ 337,676
UNCLASSIFIED EMPLOYEES	1,160,000	1,107,987
SEVERENCE PAYOFF	0	0
WORKERS COMPENSATION INSURANCE	0	0
MISCELLANEOUS PAYROLL	7,686	2,572
SUBTOTAL	\$ 1,512,686	\$ 1,448,235
EXPENSES & CONTRACTUAL SERVICES		
RENTS & LEASES	86,000	101,699
REPAIRS/ALTERATIONS/MAINTENANCE	10,000	12,697
BONDS AND INSURANCE	1,000	895
PRINTING & BINDING	8,000	10,546
PROFESSIONAL/TECHNICAL SERVICES	58,000	40,707
DATA PROCESSING & SYSTEM SERVICES	202,500	202,540
PURCHASED SERVICES	35,000	33,387
SUBTOTAL	\$ 400,500	\$ 402,471
MISCELLANEOUS OPERATING EXPENSES		
COMMUNICATIONS	27,000	22,227
TRAVEL, IN-STATE	2,000	79
TRAVEL, OUT-STATE	40,000	48,060
FEES & OTHER FIXED CHARGES	8,000	9,800
SUBTOTAL	\$ 77,000	\$ 80,166
SUPPLIES/MATERIALS/PARTS	34,500	46,050
CAPITAL EQUIPMENT	54,000	70,341
TOTAL GENERAL FUND	\$ 2,078,686	\$ 2,047,263

ATTACHMENT B

**STATE BOARD OF INVESTMENT
FISCAL YEAR 1996 ADMINISTRATIVE BUDGET REPORT
GENERAL FUND APPROPRIATION
FISCAL YEAR TO DATE THROUGH AUGUST 31, 1995**

ITEM	FISCAL YEAR 1996 BUDGET	FISCAL YEAR 1996 EXPENDITURES
PERSONAL SERVICES		
FULL TIME EMPLOYEES	\$ 1,519,000	\$ 209,152
SEVERENCE PAYOFF	0	0
WORKERS COMPENSATION INSURANCE	0	0
MISCELLANEOUS PAYROLL	0	0
SUBTOTAL	\$ 1,519,000	\$ 209,152
STATE OPERATIONS		
RENTS & LEASES	88,550	22,138
REPAIRS/ALTERATIONS/MAINTENANCE	13,000	920
BONDS AND INSURANCE	0	0
PRINTING & BINDING	15,950	10,490
PROFESSIONAL/TECHNICAL SERVICES	50,000	1,195
COMPUTER SYSTEMS SERVICES	202,500	33,750
COMMUNICATIONS	27,000	2,147
TRAVEL, IN-STATE	3,000	0
TRAVEL, OUT-STATE	50,000	2,065
SUPPLIES	48,000	727
EQUIPMENT	30,000	0
EMPLOYEE DEVELOPMENT	5,000	310
OTHER OPERATING COSTS	40,000	5,406
		0
SUBTOTAL	\$ 573,000	\$ 79,148
TOTAL GENERAL FUND	\$ 2,092,000	\$ 288,300

ATTACHMENT C

STATE BOARD OF INVESTMENT

**Travel Summary by Date
May 15, 1995 - August 15, 1995**

<u>Purpose</u>	<u>Name(s)</u>	<u>Destination and Date</u>	<u>Total Cost</u>
Board Member Travel "Investments Institute" sponsored by the Int'l Foundation of Employee Benefit Plans	E. Voss	Williamsburg, VA 6/17-6/22	\$1,710.33
Manager Monitoring Domestic Equity Manager Waddell & Reed	M. Menssen L. Buermann	Kansas City, 6/26-6/27	\$454.00
Board Member Travel National Association of Pension Attorneys Annual Conference	C. Eller	Seattle, WA 6/28-6/30	\$1,379.56
Manager Monitoring Alternative Investments Bank Fund III, Brinson Partners, LaSalle Partners, Zell/Merrill Lynch Funds	J. Griebenow	Chicago, IL 7/12-7/14	\$462.00
Manager Monitoring Fixed Income Miller Anderson & Sherrerd, Goldman Sachs, BEA Associates Manager Monitoring Emerging Managers Cohen, Klingenstein & Marks, New Amsterdam Parnters, Valenzuela Capital Mgmt.	J. Lukens M. Perry	New York, NY W.Conshohocken, PA Philadelphia, PA 7/23-7/26	\$2,680.37
Staff Education "Financial Analyst Seminar" sponsored by Assoc. for Investment Mgmt. and Research (AIMR)	L. Buermann	Evanston, IL 7/23-7/28	\$2,426.00

<u>Purpose</u>	<u>Name(s)</u>	<u>Destination and Date</u>	<u>Total Cost</u>
Manager Monitoring International Managers Barings, Marathon, Rowe Price Fleming Manager Search International Managers IAI Int'l/Hill Samuel, IDS Int'l, Genesis, City of London, Pictet, Record Treasury Mgmt., Pareto Partners, State Street/Safeport	H. Bicker	London, England 7/20-7/27	\$2,366.47
Staff Conference National Association of State Retirement Administrators Annual Conference	H. Bicker	Las Vegas, NV 7/31-8/2	\$541.00
Consultant Meeting Richards & Tierney	H. Bicker	Chicago, IL 8/15-8/16	\$956.59

Tab D

COMMITTEE REPORT

DATE: September 18, 1995

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

FROM: Asset Allocation Committee

The Asset Allocation Committee met on August 9, 1995 to review the long term asset allocation strategy for the Basic Retirement Funds and the Post Retirement Fund. As a result of the review, the Board and Investment Advisory Council (IAC) are requested to take action on two separate items:

- new long term asset allocation targets for the Basic and Post Funds.
- updated rebalancing guidelines for the Basic and Post Funds.

Please note that rebalancing guidelines were not specifically addressed at the meeting on August 9. Staff are bringing revisions forward as a natural outgrowth of the action taken on asset allocation targets.

ACTION ITEMS:

1. New Asset Allocation Targets for the Basic and Post Funds

The State Board of Investment (SBI) determines overall strategy for each fund through its long term asset allocation policy. This decision is the single largest determinant of a fund's return and overwhelms all other policy and implementation decisions. It also reflects the Board's tolerance for volatility/risk.

The last major change in the Post Fund occurred in 1993 when allocations to international stocks and yield oriented investments were added. The last major change in the Basic Funds allocation was in 1992 when international stocks were added to that portfolio.

Staff Proposal and Committee Action

Staff's full report begins on page 9. It provides additional background information, reviews long term assumptions about risk and return and examines a variety of asset mix alternatives. Staff's recommendations focused on making incremental changes that would enhance the long term the risk/return profile of the retirement funds.

The Committee adopted staff's suggested asset allocation targets, including the proposals to:

- increase the allocation international stocks from 10% to 15% of each fund
- expand exposure to emerging markets within the international stock program (i.e., up to 15% of the international stock segment / up to 2% of the total fund)
- increase the use of non dollar bonds on a tactical basis (i.e., up to 20% of the bond segment / up to 5% of the total fund)

In addition to these changes, the Committee recommended that the SBI should modify how it treats uninvested allocations to alternative assets:

Basic Funds. Since alternative assets in the Basics Funds are focused on equity-oriented vehicles, assets not yet invested will be held in domestic equities. (Currently, these amounts are invested in bonds.)

Post Fund. Since alternative assets in the Post Fund are focused on yield-oriented vehicles, assets not yet invested will be held in bonds. (This is the same as current practice.)

A chart showing the targets recommended by the Committee is in **Attachment A**.

Additional Discussion Concerning Alternative Assets

Much of the discussion at the August 9 meeting centered on the level of returns that will be available from alternative investments in the future and how this should be reflected in the SBI's asset allocation policy:

- Some members feel that the supply of funds to this area is too plentiful and will put downward pressure on returns. They believe that few, if any, vehicles available in the marketplace today will meet the SBI's return expectations for these assets. They advocated reducing the long term target for alternative investments to reflect this view. This would effectively cut off the possibility of making any new commitments to the alternative investment area and they suggested that new commitments should not be made until conditions in the marketplace change.
- Other members had similar concerns about the quality of available investments but feel that this should not be reflected through short term adjustments to the SBI's policy targets. They urged the Committee to differentiate between long term policy and short term implementation issues. They suggested that the concerns could/should be addressed by being very selective about the deals to which the SBI commits in the future.

The latter view prevailed and the motion to recommend the targets in **Attachment A** was adopted.

RECOMMENDATION:

The Committee recommends that the SBI adopt the asset allocation targets shown in *Attachment A* for the Basic Retirement Funds and the Post Retirement Fund. Further, the Committee recommends that the SBI adopt the staff analysis which begins on *page 9* of this tab section as its policy statement on the rationale for this asset allocation decision.

2. Rebalancing Guidelines

While rebalancing guidelines were not specifically addressed by the Asset Allocation Committee, the recommendation of the Committee has prompted staff to review current practice. As a result, staff are bringing updated rebalancing guidelines to the IAC in conjunction with this Committee report.

Background

Over time, the actual asset mix of a fund will move away from established asset allocation targets due to market movements and other factors. If no response were made to the resulting deviations, performance results could differ significantly from expectations. This situation can be addressed by "rebalancing", which means bringing the fund back into line with its long term targets. In effect, rebalancing guidelines impose a "buy low, sell high" discipline with respect to the asset classes held in a portfolio.

The SBI has formulated guidelines to establish practical parameters for periodic rebalancing. The rebalancing guidelines were first addressed in a position paper entitled "Basic Retirement Funds - Part II: Policy Asset Mix, Asset Class Targets and Market Timing", dated February 1987. Since that time, the SBI has used a three tiered approach to rebalancing:

- No rebalancing is done if an asset class is within $\pm 5\%$ of its long term target
- Staff has discretion to rebalance if deviations are between $\pm 5\%$ to $\pm 10\%$
- Rebalancing is mandatory if deviations are greater than $\pm 10\%$ of a long term target

In each case, the parameter is stated as a percentage of the policy target. E.g., for an asset class with a 20% target, $\pm 5\%$ equates to a range of 19%-21% and $\pm 10\%$ equates to a range of 18%-22%.

While staff believes that this basic structure should remain in effect, the Committee's recommendation concerning uninvested allocations to alternative investments must be

addressed. In addition, the above structure is impractical for the SBI's small allocations to cash.

The rebalancing guidelines in **Attachment B** formally update the SBI's rebalancing guidelines to address these issues.

RECOMMENDATION:

Staff recommends that the SBI adopt the rebalancing guidelines contained in *Attachment B* for the Basic and Post Retirement Funds.

ATTACHMENT A

**ASSET ALLOCATION TARGETS
Current vs. Recommended**

(reflects action taken by the Asset Allocation Committee on August 9, 1995)

	Basics Current	Basics Recommended	Post Current	Post Recommended
Equities	60	60	60	65
Domestic	50	45	50	50
International*	10	13	10	13
Emerging Markets**	--	2	--	2
Alternative Assets***	15	15 (1)	5	5 (2)
Private Equity	7.5	9	--	--
Real Assets	7.5	6	--	--
Yield Oriented	--	--	5	5
Fixed Income	25	25	35	30
Domestic Bonds	24	19	32	22
Non Dollar Bonds****	--	5	--	5
Cash Equivalents	1	1	3	3
Expected Return	10.33%	10.47%	9.85%	10.07%
Risk/Stand. Deviation	+11.64	+11.38	+11.13	+11.31
Change from current:				
Return		+0.14		+0.22
Risk		-0.26		+0.18

* Using unhedged policy target.

** Represents approximately 15% of the total international stock segment.

*** Market value. Market value plus unfunded commitments may be up to 5 percentage points higher.

**** To be used tactically, up to 20% of the entire bond pool.

(1) Amounts allocated to these equity-oriented assets but not yet invested will be held in domestic stocks. Currently, they are held in bonds.

(2) Amounts allocated to these yield-oriented assets but not yet invested will continue to be held in bonds.

ATTACHMENT B

REBALANCING GUIDELINES Basic and Post Retirement Funds

Invariably, both the Basic Retirement Funds and the Post Retirement Fund will experience changes in their respective asset mix due to a variety of factors. These factors include: contributions and withdrawals; interest and dividend income; asset liquidation proceeds; and market value increases or decreases. There will be occasions when the effect of these factors is sufficient to cause the actual asset mix to deviate materially from long term policy targets.

If no response were made to deviations from policy, performance results could differ significantly from expectations. If the policy asset mix is truly the desired long-run allocation among asset classes, it makes little sense to permit sizable deviations from this target. Therefore, staff recommends periodically rebalancing back to the policy targets.

Specifically, staff recommends the following rebalancing procedures:

1. Frequency.

The actual asset mix of the Basic and Post Funds will be reviewed monthly.

2. General Guidelines.

With the exceptions noted in #3 and #4, below, rebalancing will be required if any asset class deviates by more than 10% from its policy allocation. For deviations in the 5-10% range, staff will have discretion whether to rebalance.

For example, if an asset class had a target of 20%, $\pm 5\%$ equates to ± 1.0 percentage point and $\pm 10\%$ equates to ± 2.0 percentage points. Therefore:

- Rebalancing would be mandatory if the weighting dropped below 18.0% or rose above 22.0%.
- Rebalancing would be discretionary if the weighting was 18.0-19.0% on the downside or was 21.0-22.0% on the upside.
- No rebalancing would be done if the weighting was 19.0-21.0%.

3. Specific Procedures Relating to Alternative Investments

Alternative investments require special consideration for rebalancing purposes. These assets are treated differently than the more traditional asset classes (stocks, bonds and

cash) in the rebalancing procedures because of the difficulty of raising cash from, and investing in, alternative investments. For alternative investments, the transaction costs of an immediate rebalancing almost certainly outweigh the benefits. Because of the different treatment of alternative investments versus the traditional asset classes, it often may be impossible to move precisely back to policy targets during a rebalancing. Additionally, there must be recognition of the substitution of traditional assets for alternative investments when alternative investments are below policy targets.

Specific procedures are as follows:

- In the case of the **Basic Funds**, *domestic equities* and alternative investments will be viewed both as individual asset classes and as one combined asset class for rebalancing purposes. When alternative investments are *below* their policy target (as they are now and expected to be for the next 2-3 years), they will be combined with *domestic equities* and reviewed versus their combined target weights to determine the need for a rebalancing. When alternative investments *exceed* their policy asset mix weighting, alternative assets and domestic equities will be reviewed as two distinct asset classes and deviations from their respective weightings will be analyzed to determine whether or not a rebalancing needs to be done.
- In the case of the **Post Fund**, *bonds* and alternative investments will be viewed both as individual asset classes and as one combined asset class for rebalancing purposes. When alternative investments are *below* their policy target (as they are now and are expected to be for the next 2-3 years), they will be combined with *bonds* and reviewed versus their combined targets to determine the need for a rebalancing. When alternative investments *exceed* their policy target, alternative assets and bonds will be reviewed as two distinct asset classes and deviations from their respective weightings will be analyzed to determine whether or not a rebalancing needs to be done.
- At times when the alternative investment segment of a fund is above the policy target, new commitments to alternative investments will be suspended until the deviation is back in-line with the long term target.

4. Specific Procedures Relating to Cash

Given the very small allocation to cash (1% in the Basics and 3% in Post), a deviation from the cash target will not trigger a mandatory rebalancing unless another asset class has also deviated from its policy target. If cash deviates from its weighting by more than $\pm 10\%$, staff will retain the discretion to rebalance back to the cash target. Staff will determine the immediate cash needs of the fund(s) involved and respond accordingly.

Asset Allocation Review

**Basic Retirement Funds
Post Retirement Fund
Combined Funds**

**Minnesota State Board of Investment
Staff Analysis and Proposal**

July 1995

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ASSET ALLOCATION REVIEW
Basic Retirement Funds
Post Retirement Fund
Combined Funds

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ASSET ALLOCATION REVIEW

Basic, Post and Combined Funds

The State Board of Investment (SBI) determines overall strategy for each fund through its long term asset allocation policy. This decision is the single largest determinant of a fund's return and overwhelms all other policy and implementation decisions. It also reflects the Board's tolerance for volatility/risk.

The asset allocation targets of the Basic and Post Funds were last reviewed in 1993 as part of a larger study of constraints on fund performance (See *Review of Constraints on Fund Performance*, in the "Board Folder" for the September 1993 meeting). That study resulted in the addition of international stocks and yield oriented alternative investments to the Post Fund. The last major change in the Basic Funds allocation was in 1992 when international stocks were added.

This review is prompted by two issues that surfaced during the 1993 study:

- As part of its recommendations, staff suggested that the Board consider additional allocations to international assets for both the Basics and Post in approximately two to three years (i.e., 1995/96). *This review recommends that the SBI raise the target for international stocks from 10% to 15%. As part of this increase, exposure to emerging markets should be expanded.*
- At the urging of the Investment Advisory Council (IAC), the Board also approved a pilot program to introduce the use of non dollar bonds in the Funds. The pilot program allowed three of the SBI's current managers to allocate up to 10% of their individual portfolios to non dollar bonds on a tactical basis. Staff were directed to come back to the Board with a proposal to continue, expand or drop the non dollar bond initiative within two years (i.e., by the close of 1995). *This review recommends that the SBI use non dollar bonds tactically/opportunistically for up to 20% of the bond segment / up to 5% of the total fund.*

Current Asset Allocation Targets

The current long term asset allocation targets for the Basic and Post Funds are shown below. While the Board does not set specific targets for the Combined Funds, they can be derived using the market values of the two underlying funds. (Because market values fluctuate, the “targets” for the Combined Funds will not be constant.)

	Basics	Post	Combined*
Stocks	60%	60%	60.0%
Domestic	50	50	50.0
International	10	10	10.0
Alternative Assets	15	5	10.3
Bonds	24	32	27.7
Cash	1	3	2.0
Total	100%	100%	100.0%

* Based on 3/31/95 market values. Basics \$10.51 billion. Post \$9.46 billion.

Comparison to Other Pension Plans

The median allocations to stocks, bonds, and cash in the master trust portion of the Trust Universe Comparison Service (TUCS) are shown below:

Median Allocation*	Stocks**	Bonds**	Cash
all funds	56.8%	31.2%	5.6%
public only	52.3%	38.6%	4.7%
corporate only	59.0%	29.3%	5.9%

* Median allocation to each asset class as of 3/31/95. Will not add to 100%.

** Includes both domestic and international.

The data indicate that the SBI has chosen an asset allocation strategy that is somewhat more aggressive (i.e., more stocks/less bonds) than many plans included in the comparison universe. Overall, the allocation of the Combined Funds appears to be more closely aligned with that of a corporate plan than a public plan.

Considerations in Determining Asset Allocation Policy

Since the new retirement benefit increase formula was enacted, both the Basic and Post Funds have been oriented toward generating high long term total rates of return. However, the two funds remain separate by statute and continue to have somewhat different time horizons. Further, the ability of the Post Fund to generate and sustain benefit increases needs to be considered. As a result, asset allocation targets need to be established for each fund.

- **Basic Funds.** The Basic Funds must generate at least 8.5% annual returns, over time, to meet actuarial return assumptions. Staff believes that the current asset allocation targets for the Basic Funds are appropriate given their funded status and liability structure. Nonetheless, staff encourages the Board to look at other options that would improve the risk/return profile of the total fund. Higher returns would enhance the funded status of the Basic Funds and reduce the need for additional contributions to support promised benefits. Lower risk (with or without an increase in return) would benefit the Basics by reducing total fund volatility on a year-to-year basis.
- **Post Fund.** The Post Fund must generate 8.5% annual return, over time, in order to cover both its actuarial assumption of 5% as well as the promised inflation-based adjustment of up to 3.5% per year. (By statute, the inflation adjustment is capped at the difference between the return assumption for the Basics and the return assumption for the Post, $8.5 - 5.0 = 3.5$) If the Post Fund is expected to generate investment-based increases in addition to the inflation adjustment, annual returns must be *greater* than 8.5%, over time. As a result, *it can be argued that the Post Fund should be positioned to be more aggressive than the Basic Funds.* Currently, the Post Fund holds less alternative investments and more bonds and, therefore, has a more conservative asset allocation policy. Staff encourages the Board to look at ways to increase the long term expected return of the Post Fund. The additional risk that would accompany a more aggressive policy is mitigated by the five year smoothing mechanism in the benefit increase formula.

Greater return is accompanied by greater risk. This means that in order to increase long term return, the Board must increase a fund's exposure to equities (international or domestic stocks) or equity-like alternatives (private equity or real assets). If increasing exposure to these assets provides incremental return that equals or exceeds the additional risk, the asset allocation change will be beneficial to the fund's risk/return profile.

Further diversification across world markets (both stocks and bonds) is likely to provide the best opportunity for the Board to improve the risk/return profile of the retirement funds. The rationale for increasing the SBI's exposure to international assets is well documented:

- potential to reduce total fund risk due to low correlation of returns between markets
- potential for enhanced returns through investments in faster growing economies

Historically, international investments have been attractive because they both increased return and reduced overall portfolio volatility/risk when used in combination with other assets. Even without the benefit of incremental return, their low correlation to the US market will continue to offer highly desirable diversification benefits for the total fund. (For further discussion, see position paper entitled *International Equity Investing in the Basic Retirement Funds*, dated August 1992.)

It should be noted that a small increase in total fund returns has large dollar impact over time. Ten basis points (10 b.p. or 0.1%) of additional return in the Combined Funds can be expected to generate approximately \$420 million over a ten year period:

Value of Combined Funds after 10 Years*

With return of 8.5% annualized	\$45.22 billion
With return of 8.6% annualized	45.64 billion
Dollar value of incremental return	\$0.42 billion

* Assumes starting value of \$20 billion and no additional contributions or withdrawals.

Assumptions and Simulations

With the above considerations in mind, staff ran several asset mix simulations for the Basic, Post and Combined Funds that utilize various combinations of assets.

The expected return, standard deviation and correlation assumptions that staff used in the simulations are in **Attachment A**. For the most part, the assumptions are based on the long term historical returns provided by the capital markets. Where historical returns are not available for a particular asset class, staff extrapolated the assumptions based on those used by various consultants and money management firms. These comparative data are in **Attachment B**. The assumptions used by the SBI for its 1993 review are also included for reference.

The results of the simulations for the Basics Funds, Post Fund and Combined Funds are shown in **Attachments C, D and E**.

Staff Proposal

After reviewing the results of the simulations, staff suggests that the Board adopt the specific targets for the Basic and Post Funds that are displayed in **Attachment F**. The changes can be summarized as follows:

1. *Increase the Combined Funds allocation to international stocks by 5.0%.*

Basics: Increase the international segment from 10% to 15%.

Post: Increase the international segment from 10% to 15%.

As part of the increase, expand the exposure to emerging markets. Target up to 15% of the international segment which translates to up to 2% of the total fund.

2. *Decrease the Combined Funds allocation to domestic stocks by 2.5%.*

Basics: Reduce target from 50% to 45%.

Post: Keep target at 50%.

3. *Decrease the Combined Funds allocation to bonds by 2.5%.*

Basics: Keep target at 25%.

Post: Reduce target from 35% to 30%.

On a tactical basis, increase the use of non dollar bonds within the bond segment. Target up to 20% of the bond segment which translates to up to 5% of the total fund.

4. *Maintain targets for alternative investments in each fund.*

Basics: Keep target at 15%. Give private equity investments greater weight within the segment.

Post: Keep target at 5%. Continue to build commitments to yield oriented investments in order to reach the allocation target within next 3-5 years.

Staff believes that this proposal provides an appropriate risk/return trade-off for each fund at this time:

- **Basic Funds.** By increasing international/emerging markets exposure with a commensurate reduction in domestic stocks, the Basics can raise expected return and lower risk. (Long term expected return moves up by 14 b.p.; risk moves down by 26 b.p.)
- **Post Fund.** By increasing international/emerging markets exposure with a commensurate reduction in bonds, the Post will raise expected return. In this case, risk also increases, but at a lesser rate than return. (Long term expected return moves up by 22 b.p.; risk moves up by 18 b.p.)
- **Combined Funds.** When the proposed allocations for the Basic and Post are aggregated, expected return rises and risk decreases. (Long term expected return moves up by 18 b.p., risk moves down 4 b.p.)

The Post Fund could further improve its risk/return profile by including a higher proportion of alternative assets (refer to Attachment D, #4). However, raising the alternative asset target would be unrealistic at this time. Given the size of the Post Fund and nature of these investments, it is unlikely that the Post will reach its current target of 5% for 3-5 years. In the meantime, the Post Fund warrants a higher allocation to domestic stocks than the Basic Funds in order to increase long term expected returns.

Future Asset Allocation Strategy

Both the Basic and Post Funds would benefit from exposure to international markets beyond the 15% level suggested in the staff proposal. Allocations to international stocks in the range of 20% or more will continue to provide diversification benefits.

The suggestion that the Combined Funds should have a higher allocation to international assets is supported by the results of an evaluation tool called "portfolio optimization." In portfolio optimization, a computer model determines optimal allocations based on the assumptions provided on return, risk and correlation. The model will seek the combination of assets that provides the highest level of expected return for a given level of risk.

Attachment G shows the results of the optimization for the Combined Funds. Targets for private equity, real assets, yield oriented investments and emerging markets were capped to reflect "real world" constraints (e.g. liquidity and availability) that are not captured in the assumptions. With these constraints in place, the optimizer chose the highest returning asset mix for portfolios with risk levels of approximately ± 11.0 , ± 11.25 and ± 11.5 . (This range includes risk levels both above and below the standard deviation of the staff proposal for the Combined Funds.) As shown, the optimizer allocated more than 30% of the portfolio to international stocks in each case.

Attachment H shows how the asset allocation strategy of the Combined Funds has changed in recent years. It also displays how the proposal set forth in this review moves the Board toward the asset allocation targets that staff would suggest for the future. As shown, the SBI has made incremental steps toward international diversification of the Combined Funds, moving from 0% prior to 1993, to 5% during 1993 and to 10% during 1994. If the staff proposal is approved, exposure to international stock markets would increase to 15%. In the future, perhaps before the end of the decade, staff believes that it is appropriate for the Combined Funds to have a 20% exposure to international assets.

Conclusion and Recommendation

Based on this review, staff recommends that the SBI adopt the allocations for the Basic and Post Funds shown **Attachment F** and summarized below:

	Basics Current	Basics Proposed	Post Current	Post Proposed
Equities	60	60	60	65
Domestic	50	45	50	50
International*	10	13	10	13
Emerging Markets	--	2	--	2
Alternative Assets**	15	15	5	5
Private Equity	7.5	9	--	--
Real Assets	7.5	6	--	--
Yield Oriented	--	--	5	5
Fixed Income	25	25	35	30
Domestic Bonds	24	19	32	22
Non Dollar Bonds***	--	5	--	5
Cash Equivalents	1	1	3	3
Expected Return	10.33%	10.47%	9.85%	10.07%
Risk/Stand. Deviation	+11.64	+11.38	+11.13	+11.31

* Using unhedged policy target.

** Market value. Market value plus unfunded commitments may be up to 5 percentage points higher.

***To be used tactically, up to 20% of the entire bond pool.

The above allocation targets should not be considered final. Staff anticipates that the Board will continue to make incremental changes in its asset allocation strategy over the remainder of the 1990's. In the future, staff encourages the Board to consider higher allocations to international investments for both the Basic and Post Funds. Additional allocations to alternative assets are also likely to improve the risk/return profile of the Funds.

If the staff proposal is adopted, the asset allocation of the Combined Funds will continue to be more aggressive than the "typical" pension fund included in universe comparisons such as TUCS. Over longer periods (10 years or more), this should result in higher returns than the typical fund the peer group universe. Over shorter periods (1, 3, or 5 years), the Board should be cognizant that returns could just as likely be bottom quartile as top quartile in universe rankings.

Attachment A

Assumptions Used in Simulations

Asset Class	Return/Risk		
	Real* Return	Nominal** Return	Risk/ Stand. Dev.
Equities			
Domestic	6.50	11.00	17.00
International-unhedged	6.75	11.25	19.00
International-hedged	6.55	11.05***	17.00
Emerging markets	9.50	14.00	23.00
Alternative Assets			
Private equity	9.50	14.00	23.00
Real assets	4.50	9.00	12.00
Yield oriented	5.50	10.00	13.00
Fixed Income			
Domestic bonds	3.50	8.00	8.50
Non dollar bonds-unhedged	3.50	8.00	12.00
Non dollar bonds-hedged	3.30	7.80***	5.00
Cash equivalents	1.00	5.50	3.00
Inflation		4.50	

* Real return = nominal return - inflation.

** Nominal return is the long term (20+ years) expected return.

*** Unhedged return less assumed hedging cost of 20 b.p.

Correlation Matrix

	1	2	3	4	5	6	7	8	9	10	11
1 US stocks	1.0										
2 Intl.-unhed.	.45	1.0									
3 Intl.-hed.	.60	.80	1.0								
4 Emerg. mkts.	.30	.30	.30	1.0							
5 Priv. equity	.50	.15	.25	.00	1.0						
6 Real assets	.30	.25	.25	.30	.30	1.0					
7 Yield oriented	.45	.30	.35	.00	.40	.15	1.0				
8 US bonds	.35	.20	.25	-.20	.15	.20	.60	1.0			
9 Non US-un.	.10	.60	.30	-.20	.00	.10	.00	.40	1.0		
10 Non US-hed.	.30	.20	.40	-.20	.05	.10	.30	.75	.25	1.0	
11 Cash equiv.	-.10	-.10	.00	-.10	-.10	.30	.20	.10	-.10	.60	1.0

Attachment B
Comparative Data -- Historical
Annualized Returns through 3/31/95

	Last 5 Yrs.	Last 15 Yrs.	Longest Avail.	Longest # Yrs.
Equities				
Domestic (1)	11.5 / 11.4	15.1 / 15.5	11.8 / 10.3	24 / 69
International-unhedged (2)	6.8	16.1	13.2	25
Emerging markets (3)	3.9	NA	16.6	10
Alternative Assets				
Private equity	NA	NA	NA	NA
Real estate (4)	1.2	11.8	13.1	17
Yield oriented	NA	NA	NA	NA
Fixed Income				
Domestic bonds (5)	8.9	11.9	9.8	19
Non dollar bonds-unhed. (6)	17.7	14.0	12.1	17
Cash equivalents (7)	4.8	7.3	3.7	69
Inflation	3.3	4.3	3.1	69

Annual Standard Deviations through 3/31/95

	Last 15 Yrs.	Longest Avail.	Longest # Yrs.
Equities			
Domestic (1)	15.1 / 14.9	15.8 / 19.8	24 / 69
International-unhedged (2)	18.3	17.4	25
Emerging markets (3)	NA	23.4	10
Alternative Assets			
Private equity	NA	NA	NA
Real estate (4)	14.4	17.2	17
Yield oriented	NA	NA	NA
Fixed Income			
Domestic bonds (5)	7.0	6.8	19
Non dollar bonds-unhedged (6)	12.5	12.7	17
Cash equivalents (7)	0.9	0.9	69

Source: Ibbotson Associates

- (1) Wilshire 5000 / S&P 500
- (2) Morgan Stanley Capital International EAFE
- (3) International Financial Corporation Composite
- (4) Wilshire Real Estate
- (5) Lehman Brothers Aggregate
- (6) Salomon Brothers Non US (wtd.)
- (7) 90 Day US Treasury Bills

Attachment C

Asset Mix Simulations - Basic Funds

	Current Targets	1	2 Proposed	3
Equity	60	65	60	65
Domestic	50	50	45	50
International Unhedged	10	15	13	13
Emerging Markets	--	--	2	2
Alternative Assets	15	15	15	15
Private Equity	7.5	7.5	9	9
Real Assets	7.5	7.5	6	6
Yield Oriented	--	--	--	--
Fixed Income	25	20	25	20
Domestic Bonds	24	19	19	15
Non Dollar Bonds	--	--	5	4
Cash Equivalents	1	1	1	1
Expected Return	10.33	10.49	10.47	10.62
Standard Deviation	<u>±11.64</u>	<u>±12.00</u>	<u>±11.38</u>	<u>±12.00</u>
Return: change from current		+.16	+.14	+.29
Risk: change from current		+.36	-.26	+.36

- 1 -increase international stocks 5%
 -decrease bonds 5%

- 2 -increase international stocks 5%, include emerging markets
 -decrease domestic stocks 5%
 -emphasize private equity, use non dollar bonds tactically

- 3 -increase international stocks 5%, include emerging markets
 -decrease bonds 5%, use non dollar bonds tactically

Attachment D

Asset Mix Simulations - Post Fund

	Current Targets	1	2	3 Proposed	4
Equity	60	65	60	65	60
Domestic	50	50	45	50	45
International Unhedged	10	15	13	13	13
Emerging Markets	--	--	2	2	2
Alternative Assets	5	5	5	5	10
Private Equity	--	--	--	--	--
Real Assets	--	--	--	--	--
Yield Oriented	5	5	5	5	10
Fixed Income	35	30	35	30	30
Domestic Bonds	32	27	27	22	22
Non Dollar Bonds	--	--	5	5	5
Cash Equivalents	3	3	3	3	3
Expected Return	9.85	10.01	9.92	10.07	10.02
Standard Deviation	<u>+11.13</u>	<u>+11.47</u>	<u>+10.74</u>	<u>+11.31</u>	<u>+10.88</u>
Return: change from current		+.16	+.07	+.22	+.17
Risk: change from current		+.34	-.39	+.18	-.25

- 1 -increase international stocks 5%
 -decrease bonds 5%

- 2 -increase international stocks 5%, include emerging markets
 -decrease domestic stocks 5%
 -use non dollar bonds tactically

- 3 -increase international stocks 5%, include emerging markets
 -decrease bonds 5%, use non dollar bonds tactically

- 4 -increase international stocks 5%; increase alternatives 5%
 -decrease domestic stocks 5%; decrease bonds 5%

Attachment E

Asset Mix Simulations - Combined Funds

(assumes Basic and Post are equal in size)

	Current Targets	1	2 Proposed	3
Equity	60	65	62.5	62.5
Domestic	50	50	47.5	47.5
International Unhedged	10	15	13.0	--
International Hedged	--	--	--	13.0
Emerging Markets	--	--	2.0	2.0
Alternative Assets	10	10	10	10
Private Equity	3.75	3.75	4.50	4.50
Real Assets	3.75	3.75	3.00	3.00
Yield Oriented	2.50	2.50	2.50	2.50
Fixed Income	30	25	27.5	27.5
Domestic Bonds	28	23	20.5	20.5
Non Dollar Bonds Unh.	--	--	5.0	--
Non Dollar Bonds Hed.	--	--	--	5.0
Cash Equivalent	2	2	2.0	2.0
Expected Return	10.06	10.23	10.24	10.20
Standard Deviation	±11.33	±11.68	±11.29	±11.35
Return: change from current		+.17	+.18	+.14
Risk: change from current		+.35	-.04	+.02

1 -combine #1 from Basic and #1 from Post

2 -combine #2 from Basics and #3 from Post

3 -same as Combined #2, but hedge all international stocks and non dollar bonds

Attachment F

Asset Allocation Targets -- Staff Proposal

	Basics Current	Basics Proposed	Post Current	Post Proposed	Combined Current	Combined Proposed
Equity	60%	60%	60%	65%	60%	62.5%
Domestic	50	45	50	50	50	47.5
International*	10	13	10	13	10	13.0
Emerging Markets**	--	2	--	2	--	2.0
Altern. Assets***	15%	15%	5%	5%	10%	10.0%
Private Equity	7.5	9	--	--	3.75	4.5
Real Assets	7.5	6	--	--	3.75	3.0
Yield Oriented	--	--	5	5	2.50	2.5
Sub Total	75%	75%	65%	70%	70%	72.5%
Fixed Income	25%	25%	35%	30%	30%	27.5%
Domestic Bonds	24	19	32	22	28	20.5
Non US Bonds****	--	5	--	5	--	5.0
Cash Equivalents	1	1	3	3	2	2.0
Total	100%	100%	100%	100%	100%	100.0%
Annual Expected Return	10.33%	10.47%	9.85%	10.07%	10.06%	10.24%
High*****	21.97	21.85	20.98	21.38	21.39	21.53
Low*****	-1.31	-0.91	-1.28	-1.24	-1.27	-1.05
Annual Expected Risk/Stand. Dev.	+11.64	+11.38	+11.13	+11.31	+11.33	+11.29

* Using unhedged benchmark.

** Would represent 13-15% of the entire international segment.

*** Market value. Unfunded commitments plus market value may be up to five percentage points higher, i.e. up to 20% for the Basics and up to 10% for the Post.

**** To be used tactically by existing managers/up to 20% of entire bond segment. Benchmark for entire bond segment would remain Lehman Aggregate.

***** Plus or minus one standard deviation.

Attachment G

Asset Mix Simulations Results of Constrained Optimizations*

Combined Funds

	1	2	3
Equity	65	68	71
Domestic	29	30	32
International	34**	36**	37**
Emerging Markets	2*	2*	2*
Alternative Assets	10*	10*	10*
Private Equity	4.5*	4.5*	4.5*
Real Assets	3.0*	3.0*	3.0*
Yield Oriented	2.5*	2.5*	2.5*
Fixed Income	25	22	19
Domestic Bonds			
Non Dollar Bonds	25***	22***	19***
Cash Equivalents			
Expected Return	10.34%	10.46%	10.54%
Standard Deviation	±11.00*	±11.25*	±11.50*

* Variable that was constrained for the optimization.

** The optimizer chose a ratio of approximately two thirds unhedged/one third hedged for international stocks in each case.

*** The optimizer chose fully hedged bonds in each case.

Attachment H

Asset Allocation Strategy Over Time

Combined Funds

	1993*	Current	Proposed	Future Option	Future Option
Equity	56	60	62.5	62.5	65.0
Domestic	50	50	47.5	42.5	45.0
International	6	10	15.0**	20.0**	20.0**
Alternative Assets	8	10	10.0	12.5	12.5
Sub Total	64	70	72.5	75.0	77.5
Fixed Income	36	30	27.5	25.0	22.5
Domestic Bonds	34	28	20.5	18.0	15.5
Non Dollar Bonds			5.0***	5.0***	5.0***
Cash Equivalents	2	2	2.0	2.0	2.0
Total	100	100	100.0	100.0	100.0
Expected Return	9.93	10.06%	10.24%	10.28%	10.36%
Risk/Stand. Dev.	+11.07	+11.33	+11.29	+11.19	+11.49

* Allocation targets for individual funds in 1993:

	Basics	Post
Stocks	60	50
Domestic	50	50
International	10	--
Alternative Assets	15	--
Bonds	24	47
Cash	1	3

** Includes 2% allocation to emerging markets.

*** Non dollar bonds to be used tactically and capped at 5%.

Policy Decision on Strategic/Constant Hedging

What: Hedging a constant proportion of currency exposure at all times. Also referred to as a “passive hedge”.

Why: To reduce risk/volatility associated with exposure to foreign currency.

Context: Affects risk/return profile of total fund. Part of total fund asset allocation policy. Decision is reflected in policy target/benchmark.

Finding: Doubtful benefit until international allocation is greater than 20% of the total fund.

Recommendations of the International Manager Committee:

- Reject constant hedging as long as international allocation is less than 20% of the total fund.
- Continue to use EAFE unhedged as policy target.

Strategic/Constant Hedging Impact on Combined Funds

	Total Fund with Unhedged Targets	Total Fund with Hedged Targets
Expected Return	10.24%	10.20%
Expected Risk	±11.29	±11.35

Finding: Constant hedging does not benefit the risk/return profile of the proposal for the Combined Funds.

This supports the recommendation that the SBI's policy targets should remain unhedged at this time.

Assumptions:

	Return (1)	Risk (2)
Domestic Stocks	11.00	17.00
International Stocks-Unhedged	11.25	19.00
International Stocks- Hedged	11.05	17.00
Domestic Bonds	8.00	8.50
Non Dollar Bonds-Unhedged	8.00	12.00
Non Dollar Bonds-Hedged	7.80	5.00

(1) Returns:

Over time, returns are expected to be roughly equal among all developed markets. Hedged return is equal to unhedged return less 0.2%. (20 b.p. is a conservative estimate of the annual cost of maintaining a constant hedge.)

(2) Risk/standard deviation assumptions are based on historical relationships.

Tactical/Active Hedging

What: A form of active management.

Manager makes decision to increase/decrease currency exposure at points in time.

<i>hedge</i>	\$US strong/appreciating
<i>do not hedge</i>	\$US weak/depreciating

Why: To enhance return over policy benchmark.

Context: Part of asset management decision.

Status: International Committee/Staff expect to finalize recommendations and position paper for the next SBI/IAC meetings.

Committee/Staff investigating capabilities of specific managers that use systematic/risk controlled approaches.

Rationale for Emerging Markets

More opportunity / faster growing economies

- Emerging markets comprise:
85% of world population
20% of world GNP
- Projection of future economic growth by the IMF:
emerging markets 5.2% annual
developed countries 2.5% annual
- Emerging markets are 13% of world market capitalization.
Aggregate market value is \$1.9 trillion.

Potential for higher returns, over time

	5 yrs.*	10.5 yrs.*	Long Term Assumption
Emerging Markets**	10.74%	17.27%	14.00%
EAFE	5.02	16.71	11.25
Wilshire 5000	12.32	15.07	11.00

* Period ending June 30, 1995

** IFC Composite

Source: Ibbotson Assoc.

Low correlations to other assets

	Emerging**	EAFE	Wilshire 5000
Emerging**	1.00		
EAFE	0.28	1.00	
Wilshire 5000	0.33	0.48	1.00

Emerging Markets (continued)

Emerging markets returns are similar to venture capital returns

- Risk of an individual market (portfolio company) is high
- Risk of a emerging markets portfolio (venture fund) is much lower
- A few high returning markets are expected to offset low returns from other investments.
- Higher return is necessary to compensate for higher volatility and lower liquidity relative to other asset classes.

Over time, higher risk is compensated by higher return

Return Per Unit of Risk* Five Years 1989-1994

	Avg. Monthly Return	Monthly Stand. Dev.	Return Per Unit of Risk*
World**	0.40%	±4.21	0.10%
EAFE**	0.26%	±5.55	0.05%
Emerging Markets***	1.75%	±6.06	0.29%

* monthly return divided by monthly standard deviation

** Morgan Stanley Capital International (MSCI)

*** International Financial Corporation (IFC) Investable

Source: Genesis Investment Management

Emerging Markets (continued)

Proposed allocation

- approximately 15% of international segment
- approximately 2% of the total fund

Dollar values

- Target allocation in staff proposal: \$400 million
- Expected exposure with existing managers: less than \$50 million
- Additional needed to reach proposed target: at least \$350 million

Implementation alternatives

- change/add to mandates with existing managers
- retain emerging markets specialist(s)

Funding

- increase exposure to emerging markets gradually / opportunistically
- target \$200 million additional over next year
- fill remaining allocation over following year

Rationale for Tactical Use of Non Dollar Bonds

Over the long term, returns from US vs. Non US bonds should be approximately equal.

	Return Assumption
US Bonds	8.0%
Non US Bonds-Unhedged	8.0
Non US Bonds-Hedged	7.8

A long term allocation to non dollar bonds does not appear to benefit return profile of the Combined Funds.

Impact on Combined Funds*

	All Domestic	Half Domestic Half Non Dollar	All Non Dollar
Expected Return	10.24%	10.24%	10.24%
Expected Risk	±11.33	±11.29	±11.44

* Using allocation targets from the proposal for the Combined Funds:

Equities	62.5%	
Domestic		47.5
International		15.0
Alternative Assets	10.0%	
Fixed Income	27.5%	
Bonds		25.5
Cash		2.0

Non Dollar Bonds (continued)

Over the short term, returns vary widely among world bond markets

Annual Returns 5-7 Year Government Bonds

Yr. Ending March	Unhedged Highest	Unhedged Lowest	Hedged Highest	Hedged Lowest
1987	13.2 Canada	-0.7 Denmark	11.9 Japan	0.8 Australia
1988	23.4 Australia	4.2 US	15.3 Australia	2.7 Canada
1989	16.5 Denmark	0.4 Nthlands	10.3 France	-2.1 Australia
1990	-6.7 Japan	-15.4 Australia	11.6 US	-6.5 UK
1991	25.9 Sweden	9.2 Japan	16.4 UK	7.9 Switz.
1992	21.1 Sweden	10.0 France	13.2 Australia	1.6 Switz.
1993	23.6 UK	9.3 Sweden	15.7 Australia	2.1 Denmark
1994	17.0 Sweden	2.0 US	8.1 Japan	2.7 US
1995	7.0 Japan	-8.7 Sweden	10.1 Japan	-0.7 France

Source: JP Morgan

Conclusion: Tactical / opportunistic use of non dollar bonds could capitalize on these shorter term disparities.

Non Dollar Bonds (continued)

Proposal

- use non dollar bonds on a tactical basis to add value
- target up to 20% of bond segment / up to 5% of the total fund
- policy benchmark would remain Lehman Aggregate, for the present

Structure

- authority to be granted on a manager-by-manager basis
- individual active managers capped at 20-25%
- individual semi-passive managers capped at 5-10%

Implementation

- review current managers' capabilities over next 6-12 months
- consider non dollar expertise in any future manager searches

Tab E

COMMITTEE REPORT

DATE: September 18, 1995

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

FROM: Domestic Manager Committee

The Domestic Manager Committee met on August 21, 1995 to consider the following agenda items:

- review of manager performance for the period ending June 30, 1995
- review of selected active stock managers required by the Manager Continuation Policy
- report from the Manager Re-Interview Committee

Board action is requested on item.

ACTION ITEMS:

1. Review of Manager Performance

- *Stock Managers*

For the quarter ending June 30, 1995, the domestic stock manager program matched the aggregate benchmark but under performed the Wilshire 5000. For the latest year, three and five years, the **current** managers under performed the benchmark and the Wilshire 5000.

Time Period	Actual	Wilshire 5000*	Aggregate Benchmark
Quarter	9.0%	9.3%	9.0%
1 Year	23.0	24.7	25.0
3 Years	13.1	13.5	13.7
5 Years	12.0	12.1	12.2

* Adjusted for SBI's restrictions, as appropriate.

The performance evaluation reports for the stock managers start on page 19 of this Tab. Manager Commentaries are in Tab I.

Performance among the individual managers was mixed for the quarter. In general, the managers who outperformed for the quarter had good stock selection and/or were overweighted in technology stocks. The managers who under performed generally had either poor stock selection, an overweighted cash position, an under weighted position in technology stocks or a combination of the above.

- *Bond Managers*

For the period ending June 30, 1995 bond program matched the Lehman Aggregate returns for the quarter but under performed by 0.1 percent for the year. The **current** manager group outperformed the benchmark by 0.5 percent over the last three and five years.

Time Period	Actual	Lehman Aggregate*
Quarter	6.1%	6.1%
1 Year	12.5	12.6
3 Years	8.1	7.6
5 Years	10.0	9.5

* Reflects Salomon BIG index prior to 7/94.

The performance evaluation reports for the bond managers start on page 47 of this Tab. Manager Commentaries are in Tab I.

During the quarter, staff met with two bond managers, Miller Anderson & Sherrerd and BEA Associates, to discuss recent organizational changes:

- **BEA.** BEA was placed on probation in June 1995 due to their recent merger with CS First Boston and the departure of Mark Arnold, formerly Head of Fixed Income at the firm. After meeting with BEA personnel at their offices in New York, staff recommended removing the firm from probation. Staff reported that Mr. Arnold's departure should not have a large affect on the SBI portfolio since his primary responsibility was international bonds. After he left the firm, staff instructed BEA to unwind the small non-dollar bond exposure in the SBI's account. Staff also concluded that the addition CS First Boston's below investment grade team should enhance BEA's fixed income capabilities.
- **Miller Anderson.** Miller Anderson was purchased by Morgan Stanley during the quarter. Staff reported that the buyout does not appear to affect how Miller manages the portfolio and staff does not recommend any change in Miller's status.

Staff will continue to monitor Miller to determine if the buyout has any adverse affect over time.

RECOMMENDATION:

The Committee recommends that BEA Associates be removed from probation status.

2. Review of Active Domestic Stock Managers Required by the Manager Continuation Policy

While the performance of any manager may be called into question at any time, the quantitative review guidelines in the SBI's Manager Continuation Policy (MCP) contain two specific "trigger points":

- **Performance below benchmark.** When a manager's rolling 5 years performance falls below the benchmark for 12 consecutive months, the Domestic Manager Committee must review the manager and forward their recommendation to the IAC. The review is to be based on information presented by the manager in its most recent Manager Commentaries and other evaluation material compiled by the staff. The Committee's recommendation could be to take no further action, to closely monitor for a period of time or to call for a formal re-interview.
- **Performance below lower band of the confidence interval.** When a manager's rolling 5 year performance falls below the lower band of the confidence interval for 12 consecutive months, a Manager Re-Interview Committee must be convened to formally re-interview the manager. The result will be a recommendation to the Board to continue ("re-hire") the manager or terminate the relationship.

As of June 1995, **Investment Advisers** and **Weiss Peck & Greer** meet the criteria in the first "trigger point". The Committee reviewed the pertinent material and decided that staff should continue to monitor the firms but that no further action is necessary at this time. The rationale in each case is outlined below:

Weiss Peck & Greer (WP&G)

- The firm's investment process and personnel have not changed materially since they were retained by the SBI.
- The firm has improved its monitoring process to better understand how the portfolio performs relative to its benchmark.
- Historically, WP&G has been a very volatile manager. The firm is likely to produce very large positive or negative value added over short periods of time.

- The firm has been retained by the SBI for a short period of time (since July 1993).

Investment Advisers (IAI)

- The firm's investment process for this discipline has not changed. The additional personnel now working with the portfolio manager are expected to strengthen the process.
- IAI recently implemented a revised benchmark that better reflects this discipline. If the new benchmark had been available in prior periods, performance relative to it would have appeared materially better.
- This discipline has been retained by the SBI for a short period of time (since July 1993).

3. Report from the Manager Re-Interview Committee

At staff's request, a Manager Re-Interview Committee was convened during the quarter to formally review the following active domestic stock managers:

- Lynch & Mayer
- Forstmann-Leff Associates
- Waddell & Reed

The Re-Interview Committee recommended that the SBI terminate its contract with Lynch & Mayer and that the SBI should continue to retain Forstmann-Leff and Waddell & Reed. The Committee's report begins on page 7.

Upon review, the Domestic Manager Committee concurred with the Manager Re-Interview Committee's recommendations. In addition to the information in the attached report, the Domestic Manager Committee noted the following:

- **Lynch & Mayer.** Performance attribution has shown consistently poor selection and the firm has not adequately explained their under performance. Organizational changes at the firm since they were retained by the SBI in 1992 do not appear likely to address these issues.
- **Forstmann-Leff.** The firm has utilized the same management team and investment process since they were retained by the SBI in 1983. In addition, they are making technological improvements that should enhance their implementation and monitoring processes. With the exception of calendar 1994, their performance was positive for almost all time periods. The firm acknowledged the mistakes they made in 1994 and has taken steps to address them.

- **Waddell & Reed.** The firm's investment process has been consistently applied since they were retained by the SBI in 1983. Recent personnel and technological changes are expected to improve both implementation and monitoring. In the past, the firm has generated significant short term under performance and then quickly turned around to produce large positive returns. The recent downturn is not without precedent.

RECOMMENDATIONS:

The Committee concurs with the report of the Manager Re-Interview Committee and recommends that the SBI:

- **terminate is contract with Lynch & Mayer, Inc. for active domestic stock management.**
- **continue to retain Forstmann-Leff Associates and Waddell & Reed as active domestic stock managers.**

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COMMITTEE REPORT

DATE: August 24, 1995

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

FROM: **Manager Re-Interview Committee**

During the quarter, a Manager Re-Interview Committee was convened to re-interview three of SBI's current domestic active stock managers:

- Forstmann-Leff Associates
- Lynch & Mayer, Inc.
- Waddell & Reed.

This action was recommended due to both qualitative and quantitative concerns raised by staff and the Domestic Manager Committee during the previous quarter.

The members of the Re-Interview Committee were:

Name		Representing
Peter Sausen	Assist. Commissioner of Finance	Governor Carlson
Christie Eller	Assistant Attorney General	State Attorney General Humphrey
Mike McGrath	State Treasurer	
Carey Moe	Assistant to the State Auditor	State Auditor Dutcher
Elaine Voss	Deputy Secretary of State	Secretary of State Growe
Dave Bergstrom	MSRS	Investment Advisory Council
John Bohan	The Pillsbury Company	Investment Advisory Council

Background

In early 1995, the Domestic Manager Committee concurred with staff's recommendation that seven active managers (Forstmann-Leff, GeoCapital, Investment Advisers, Jundt Associates, Lynch & Mayer, Waddell & Reed, and Weiss, Peck & Greer) be reviewed due to concerns about poor performance in recent time periods. After reviewing staff's report, the Domestic Manager Committee reached the following conclusions at their meeting in May 1995:

- Despite short-term under performance, no action should be taken at this time with respect to GeoCapital, Investment Advisers, Jundt Associates and Weiss, Peck &

Greer. Staff and the Committee have confidence in both the investment process and personnel utilized by these firms over the longer term.

- Qualitative and quantitative concerns at three firms, Forstmann-Leff, Lynch & Mayer, and Waddell & Reed, were sufficient to warrant re-interviews by a special review committee. The result of these re-interviews would be recommendations to the Board concerning the retention or termination of these three managers.

Re-Interview Process

All three firms were re-interviewed on August 17, 1995. Staff's comments and analysis for each of the three firms begins on page 9 of this Tab. Based on the interviews, questionnaire responses, and other supporting information, the Re-Interview Committee is recommending the following action at this time:

- The SBI contract with **Lynch & Mayer** should be terminated. The Committee concurs with staff's assessment that organizational changes and serious under performance warrant this action.
- **Forstmann-Leff** and **Waddell & Reed** should continue to be retained as active domestic stock managers for the SBI. The Committee did not detect an underlying problem in the organization or investment process at either firm that would cause continued under performance. Historically, these firms have displayed a high degree of volatility relative to their benchmarks. The Committee believes recent under performance is a short-term problem in a longer-term cycle and that the SBI will be rewarded with strong performance in the future.

RECOMMENDATIONS:

The Committee recommends that the SBI:

- **terminate its contract with Lynch & Mayer, Inc. for active domestic stock management.**
- **continue to retain Forstmann-Leff Associates for active domestic stock management.**
- **continue to retain Waddell & Reed for active domestic stock management.**

FORSTMANN-LEFF

Staff spent a full day with Forstmann-Leff on April 5, 1995 to review their operation.

Forstmann-Leff uses both a top down and bottom up approach to investing. The portfolio managers use economic information to prepare top down direction for the analysts, who then look at their own industries and come up with themes that fit their industry before identifying particular stock names. Recently, Forstmann-Leff began using a stock valuation system called "StockVal" to help them determine which sectors should be over or under weighted in the portfolio. They have started to pay more attention to sector bets, since they feel sector movement occurring in the market is significant to performance. StockVal also allows them to monitor specific stock price movement to determine whether a security is over- or under-bought and to find stocks which are undervalued on a historical basis.

Forstmann-Leff's performance through 1993 was greater than or equal to the benchmark in the 1 year, 3 year, 5 year, and since inception time periods. After 1994's poor results, all periods show negative performance against the benchmark. Contributors to 1994's under performance were autos, forest products, railroads, and specialty retailers. They have held many of these stocks believing that they will be rewarded in the end. They were also hurt by choosing not to hold health care and technology stocks, two industries that performed well.

After meetings with Forstmann-Leff's investment personnel (both portfolio managers and investment analysts), staff has concluded that the analytical capabilities of the firm have deteriorated. Staff feels that the analyst group at Forstmann-Leff does not produce the high quality research needed to produce value added returns.

Recommendation:

Staff recommends that Forstmann-Leff be re-interviewed by a special committee next quarter at which time a retention or termination decision be made.

Investment Manager: Forstmann-Leff Portfolio (Net Of Fees)

Benchmark: Custom

		PORTFOLIO ¹		BENCHMARK ²		VAM ³	
		Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return
84	Q1	-5.77%		-2.74%		-3.12%	
	Q2	-1.59%		-1.63%		0.05%	
	Q3	4.19%		7.39%		-2.98%	
	Q4	3.45%	-0.04%	1.31%	4.09%	2.11%	-3.97%
85	Q1	10.90%		8.15%		2.55%	
	Q2	8.05%		5.16%		2.76%	
	Q3	-4.15%		-3.14%		-1.05%	
	Q4	16.30%	33.58%	12.88%	24.35%	3.03%	7.42%
86	Q1	18.77%		10.96%		7.04%	
	Q2	8.89%		3.79%		4.91%	
	Q3	-10.77%		-5.63%		-5.44%	
	Q4	3.38%	19.31%	2.63%	11.54%	0.73%	6.95%
87	Q1	19.75%		16.09%		3.15%	
	Q2	1.64%		2.14%		-0.49%	
	Q3	8.44%		4.22%		4.05%	
	Q4	-17.61%	8.75%	-16.11%	3.67%	-1.79%	4.90%
88	Q1	6.91%		6.73%		0.17%	
	Q2	3.36%		5.52%		-2.04%	
	Q3	-2.64%		0.13%		-2.76%	
	Q4	2.64%	10.43%	1.61%	14.58%	1.01%	-3.62%
89	Q1	8.31%		6.34%		1.85%	
	Q2	2.04%		6.15%		-3.87%	
	Q3	9.79%		7.76%		1.88%	
	Q4	-2.17%	18.70%	-0.99%	20.43%	-1.19%	-1.43%
90	Q1	-2.70%		-1.23%		-1.48%	
	Q2	2.96%		4.95%		-1.90%	
	Q3	-8.24%		-14.64%		7.49%	
	Q4	2.19%	-6.06%	7.99%	-4.44%	-5.37%	-1.69%
91	Q1	19.25%		15.18%		3.53%	
	Q2	-1.06%		0.21%		-1.26%	
	Q3	11.07%		5.12%		5.66%	
	Q4	6.48%	39.55%	6.44%	29.14%	0.04%	8.06%
92	Q1	-2.01%		1.29%		-3.26%	
	Q2	-5.10%		-0.86%		-4.27%	
	Q3	-0.43%		2.07%		-2.44%	
	Q4	12.31%	3.98%	7.95%	10.63%	4.04%	-6.01%
93	Q1	1.07%		3.32%		-2.18%	
	Q2	-0.11%		0.39%		-0.49%	
	Q3	5.97%		2.02%		3.87%	
	Q4	3.03%	10.23%	2.74%	8.72%	0.28%	1.39%
94	Q1	-3.05%		-2.97%		-0.08%	
	Q2	-4.63%		-3.28%		-1.39%	
	Q3	4.61%		8.82%		-3.87%	
	Q4	-3.29%	-6.46%	-1.26%	0.83%	-2.05%	-7.23%
95	Q1	10.42%		8.67%		1.61%	
	Q2	6.60%		8.33%		-1.59%	

Investment Manager: Forstmann-Leff Portfolio (Net Of Fees)						
Benchmark: Custom						
	PORTFOLIO 1		BENCHMARK 2		VAM 3	
	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return
Latest:						
1 yr		19.08%		26.47%		-5.84%
3 yr		10.72%		12.44%		-1.53%
5 yr		10.55%		11.19%		-0.57%
Cum 84Q1-95Q2		12.20%		11.89%		0.28%
Std Dev		14.18%		12.45%		5.68%

LYNCH & MAYER

On April 3, 1995, Staff spent a full day reviewing the operations of Lynch & Mayer. (L&M) is strictly a bottom up stock picker investing money in strong growth stocks with dynamic positive earnings potential. L&M attributes their poor performance in 1993 and 1994 to the fact that those types of stocks have not performed well during the past three years. They feel dynamic companies with strong reported earnings growth and positive earnings surprises were not being rewarded, because the market preferred safe, slow growth stocks.

Ed Petner, President and co-SBI portfolio manager, also said they had problems in '93 and '94 due to the market's rotation from growth to cyclicals. They believe, generally, that when value stocks outperform growth stocks, they have difficulty with performance. They stated that their '94 performance was poor in energy, capital goods, and financials, while technology and drugs were strong. Staff pointed out that according to a Performance Attribution & Analysis report, their problem in 1994 was in stock selection as opposed to sector allocation. In response, they said 1994 stock selection had been poor because the market had failed to reward companies with strong earnings growth.

Eldon Mayer, Vice Chairman, also believes that the poor performance is due to changes in the market, so that buying a stock with positive change and holding it for years to receive the benefits from that positive change may no longer work. He feels that in today's fast paced information age the market moves so fast once information is public that you won't see the rises over long periods; it will occur over shorter periods of months or days. At this point however, they plan to continue to follow their philosophy and rules.

Over the last few years Lynch & Mayer has been transitioning the firm, giving the younger investment personnel more responsibility. It is staff's impression that these changes will allow Eldon Mayer and eventually Dennis Lynch to slowly phase themselves out. When the SBI hired Lynch & Mayer, the performance history was based on the record achieved by Eldon and Dennis. After many discussions with the additional new decision makers, Staff believes that the new organization structure evolving at Lynch & Mayer will not be the quality of the organization that existed at the time we hired them.

Lastly, in conversations with the firm over the last year or so, Staff has come to the conclusion that Lynch & Mayer does not have a clear and consistent investment process anymore. They have difficulty in explaining what has gone wrong and have become inconsistent in explaining what they are going to do in the future in regards to their investment process.

Recommendation:

Given the above concerns, Staff recommends that Lynch and Mayer be re-interviewed by a special committee next quarter at which time a retention or termination decision will be made.

Investment Manager: Lynch & Mayer Portfolio (Net Of Fees)						
Benchmark: Custom						
	PORTFOLIO 1		BENCHMARK 2		VAM 3	
	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return
92 *Q1	0.06%		-2.09%		2.20%	
Q2	-1.91%		-2.01%		0.09%	
Q3	2.99%		4.59%		-1.53%	
Q4	8.70%	9.87%	8.58%	8.96%	0.12%	0.84%
93 Q1	4.19%		2.06%		2.09%	
Q2	-2.00%		2.40%		-4.29%	
Q3	6.23%		6.14%		0.08%	
Q4	-2.39%	5.88%	1.84%	12.97%	-4.15%	-6.27%
94 Q1	-2.19%		-2.32%		0.13%	
Q2	-4.07%		-2.42%		-1.69%	
Q3	5.66%		6.64%		-0.92%	
Q4	0.22%	-0.64%	1.04%	2.71%	-0.81%	-3.26%
95 Q1	7.09%		8.75%		-1.52%	
Q2	8.43%		15.03%		-5.74%	
Latest:						
1 yr		22.97%		34.79%		-8.77%
3 yr		11.00%		18.13%		-6.03%
5 yr		NA		NA		NA
Cum 92Q1-95Q2		9.00%		14.35%		-4.69%
Std Dev		10.72%		10.18%		4.64%

*Partial Period

WADDELL & REED

On June 27, 1995, staff spent a full day reviewing the operations of Waddell & Reed (W&R).

W&R concentrates mostly on mid to large cap stocks with a higher concentration in the mid cap range. W&R will make asset allocation bets and go to cash when it feels that the market is overvalued based on monetary and stock valuation measures. W&R develops 2 to 4 themes for the portfolio to concentrate on. These themes are developed by the portfolio manager based on internal research from their investment and economic staffs and information they receive from outside sources. In selecting individual stocks, W&R uses its internal research staff to look for high growth companies that are currently undervalued due to short term problems. By investing in these companies, W&R expects to generate excess returns when the company turns around and also from above market secular growth due to the theme portion of their process.

W&R has made some major changes to their organization. In April 1994, they hired a new head of marketing and client servicing, Jim McCroy, to implement W&R's growth plan. Currently, W&R's assets are dominated by their mutual fund business which is primarily individual investors. Going forward W&R plans to concentrate more on the 401(k) and institutional accounts to achieve an even split between its businesses. Also, the previous incumbent lacked skills to implement their growth plan and to provide satisfactory client servicing. Staff's opinion is that W&R's client servicing for our account has improved significantly with the personnel change.

Another organizational change was hiring a new head of operations, Larry Cipolla, in March of 1995. Previously, W&R had not made a commitment to maintain their technology and therefore had fallen behind the industry. Within a short time, the new head of operations has made significant improvements to their capabilities. Staff feels that if W&R accomplishes their goals in the next one to two years, they will have achieved a technology level that will at least meet the industry standard.

The last significant change was to the portfolio management team responsible for the SBI account. In 1992, Hank Herman, SBI's portfolio manager since the inception of the account, hired another portfolio manager from outside W&R to work with Hank to provide better coverage for his accounts. Unfortunately, the two could not work as a team and the newer portfolio manager was ask to leave. In early 1995, Hank brought in Jim Wineland to work with him. Jim has been a portfolio manager for most of the 11 years he has been with W&R.

In addition to meeting with SBI's portfolio managers, staff met with W&R's analysts and traders. Staff feels that the analysts are a talented group of people who can carry out the research assignments needed to accomplish W&R's investment process. Staff's only concern was that their analysts might be understaffed to adequately cover all the stocks in their universe. W&R's traders have a lot of experience and the department is adequately

staffed. Staff's main concern in this area was their lack of technology. In staff's conversations with the new head of operations, he identified the trading area as one of his primary technology enhancement projects for the next year.

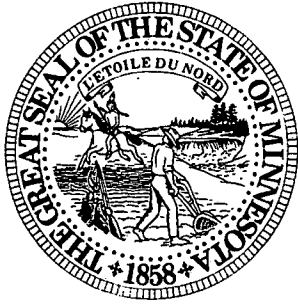
Lastly, W&R's recent performance has been below its benchmark. In 1994, W&R made a substantial bet in brokerage industry and gold stocks. Both of these bets performed poorly in 1994 due to the rapid rise in interest rates. Late in 1994, they liquidated these positions and consequently had approximately 50% cash position in the portfolio. They decided to make a substantial bet in technology but felt that the market would incur a correction and they would invest the cash at that time. However the market has not corrected and their performance has suffered relative to the benchmark which has a 5% cash weighting. As the market continued to rise, they have been investing the cash into technology and currently have approximately a 15% cash weighting.

Recommendation

Staff recommends that Waddell & Reed be re-interviewed by a special committee at which time a retention or termination decision be made.

Investment Manager: Waddell & Reed Portfolio (Net Of Fees)
Benchmark: Custom

		PORTFOLIO ¹		BENCHMARK ²		VAM ³	
		Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return
85	Q1						
	Q2						
	Q3	-2.01%		-3.45%		1.49%	
	Q4	10.36%	8.14%	12.98%	9.08%	-2.32%	-0.87%
86	Q1	16.42%		12.14%		3.82%	
	Q2	1.97%		2.66%		-0.67%	
	Q3	-6.38%		-6.90%		0.56%	
	Q4	5.13%	16.84%	3.00%	10.39%	2.07%	5.84%
87	Q1	18.38%		22.05%		-3.01%	
	Q2	2.39%		3.64%		-1.21%	
	Q3	9.83%		6.04%		3.57%	
	Q4	-20.78%	5.45%	-21.03%	5.93%	0.31%	-0.46%
88	Q1	8.08%		11.14%		-2.76%	
	Q2	7.25%		5.50%		1.66%	
	Q3	-5.91%		-1.65%		-4.33%	
	Q4	1.19%	10.36%	0.94%	16.41%	0.24%	-5.20%
89	Q1	5.19%		6.50%		-1.23%	
	Q2	10.40%		5.91%		4.23%	
	Q3	12.05%		7.92%		3.83%	
	Q4	-2.73%	26.58%	-2.54%	18.64%	-0.19%	6.69%
90	Q1	-0.28%		-0.28%		0.01%	
	Q2	5.88%		3.89%		1.91%	
	Q3	-15.40%		-17.38%		2.40%	
	Q4	3.32%	-7.71%	6.91%	-8.49%	-3.36%	0.85%
91	Q1	14.05%		18.54%		-3.79%	
	Q2	-1.15%		0.21%		-1.36%	
	Q3	6.59%		5.36%		1.17%	
	Q4	5.25%	26.48%	5.43%	31.96%	-0.17%	-4.15%
92	Q1	3.43%		3.63%		-0.20%	
	Q2	-3.13%		-3.41%		0.29%	
	Q3	4.66%		2.31%		2.30%	
	Q4	9.44%	14.76%	9.90%	12.54%	-0.41%	1.97%
93	Q1	1.92%		3.56%		-1.58%	
	Q2	6.23%		1.85%		4.31%	
	Q3	6.09%		6.43%		-0.32%	
	Q4	-0.84%	13.90%	4.53%	17.33%	-5.14%	-2.92%
94	Q1	1.66%		-1.35%		3.05%	
	Q2	-4.44%		-3.51%		-0.96%	
	Q3	5.31%		7.93%		-2.43%	
	Q4	-1.29%	0.98%	-1.40%	1.29%	0.11%	-0.31%
95	Q1	5.52%		7.92%		-2.22%	
	Q2	9.95%		10.11%		-0.14%	
Latest:							
1 yr			20.60%		26.45%		-4.63%
3 yr			15.19%		16.66%		-1.26%
5 yr			11.10%		13.12%		-1.79%
Cum 85Q3-95Q2			12.77%		12.96%		-0.16%
Std Dev			15.20%		15.71%		4.64%



STATE BOARD OF INVESTMENT

Stock Manager Evaluation Reports

Second Quarter, 1995

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DOMESTIC STOCK MANAGERS
Period Ending 6/30/95

Current Managers	Quarter		1 Year		3 years		5 Years		Since (1) Inception		Market Value (in millions)	Pool %
	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %		
Alliance	14.7	10.5	30.1	27.1	15.5	12.1	14.3	10.5	17.3	11.9	\$870.97	7.9%
Brinson	9.6	9.0	22.0	24.7					12.7	12.4	\$315.61	2.8%
Forstmann-Leff	6.6	8.3	19.1	26.5	10.7	12.4	10.6	11.2	12.2	11.9	\$335.40	3.0%
Franklin Portfolio	8.2	8.7	23.5	24.7	16.6	14.9	13.3	13.4	13.5	13.0	\$441.34	4.0%
GeoCapital	6.6	4.9	22.2	32.6	13.9	21.7	14.5	15.9	15.1	16.4	\$294.31	2.7%
IAI	8.3	8.1	24.7	25.4					13.1	13.8	\$133.65	1.2%
IDS	9.9	10.4	21.4	26.8	14.0	15.4	11.4	13.3	14.4	14.3	\$435.91	3.9%
Independence	9.7	9.6	22.5	26.1	13.4	13.7			12.5	12.6	\$436.88	3.9%
Jundt Associates	6.1	11.2	26.2	32.9					9.1	16.2	\$242.84	2.2%
Lincoln	11.1	9.6	30.7	29.5					15.1	14.2	\$320.66	2.9%
Lynch & Mayer	8.5	15.0	23.0	34.8	11.0	18.1			9.1	14.4	\$300.72	2.7%
Oppenheimer	11.1	8.0	27.9	22.3					14.7	11.6	\$326.43	2.9%
Waddell & Reed	10.0	10.1	20.6	26.5	15.2	16.6	11.1	13.1	12.1	12.1	\$449.65	4.1%
Weiss Peck & Greer	9.7	11.8	26.2	34.2					7.2	15.2	\$231.80	2.1%
Emerging Managers (2)	9.0	9.8	24.9	28.0					17.4	23.9	\$328.76	3.0%
Semi-Passive												
Franklin Portfolio (3)	8.2	8.1							17.7	18.0	\$913.56	8.2%
JP Morgan (3)	8.5	8.1							18.5	18.0	\$940.13	8.5%
Wells Fargo(3)	9.3	8.1							19.2	18.0	\$926.81	8.4%
Passive												
Wilshire Associates (4)	8.0	8.1	21.3	22.2	12.1	12.6	11.3	11.8	13.5	13.7	\$2,834.82	25.6%
											\$11,080.26	100.0%
									Since 1/1/84			
Current Aggregate (5)	9.0	9.0	23.0	25.0	13.1	13.7	12.0	12.2	14.0	13.7		
Historical Aggregate (6)	9.0	9.0	23.0	25.0	12.9	13.7	11.5	12.2	13.4	13.7		
Wilshire Adjusted (7)		9.3	24.7		13.5		12.1			13.7		
Wilshire 5000		9.3	24.7		13.6		12.3			14.0		

(1) Since retention by the SBI. Time period varies for each manager.

(2) Aggregate of emerging manager group.

(3) Semi-passive manager. Tilted index fund benchmark.

(4) Passive manager. Tilted index fund began 10/90. Fully implemented 1/92.

(5) Current Aggregate does not include Emerging Managers.

(6) Includes performance of terminated managers.

(7) Buy hold index adjusted for liquor and tobacco restrictions through 3/31/93 and AHP restriction through 10/31/93.

EMERGING EQUITY MANAGERS
Period Ending 6/30/95

Current Managers	Quarter		1 Year		3 years		5 Years		Since Inception		Market Value (in millions)	Pool %
	Actual	Bmk	Actual	Bmk	Actual	Bmk	Actual	Bmk	Actual	Bmk		
	%	%	%	%	%	%	%	%	%	%		%
CIC Assets (1)	7.0	9.0	19.0	25.4					14.9	20.3	\$35.67	10.8%
Cohen, Klingenstein, & Marks (2)	9.9	9.5	26.1	26.1					22.3	20.8	38.58	11.7%
Compass Capital (3)	7.2	8.7	28.9	24.1					20.9	18.3	38.03	11.6%
Kennedy Capital (4)	9.0	9.4	16.1	20.1					9.9	12.1	33.75	10.3%
New Amsterdam (5)	7.1	7.9	20.3	24.4					11.7	18.3	34.45	10.5%
Valenzuela Capital (2)	5.9	9.5	15.5	26.1					13.4	20.8	35.10	10.7%
Wilke/Thompson (5)	16.5	7.9	41.9	25.2					25.4	13.5	39.79	12.1%
Winslow Capital (6)	8.3	9.8	28.0	30.5					19.1	22.7	37.33	11.4%
Zevenbergen Capital (6)	10.4	9.8	26.7	30.5					15.9	22.7	\$36.07	11.0%
Historical Aggregate	9.0	9.1 *	24.2	25.9 *					16.9	19.1 *	328.76	100.0%
Current Aggregate	9.0	9.1 *	24.9	25.9 *					17.4	18.9 *		

Benchmarks currently used are:

- (1) S&P 500 from 4/94 thru 3/95 and Russell 1000 Value since 4/95
- (2) S&P 500
- (3) S&P (Equal-Weight)
- (4) Russell 2000
- (5) Custom Benchmark
- (6) Russell 1000 Growth
- (7) Inception date for all managers is 4/1/94

* weighted average of above benchmarks

ALLIANCE CAPITAL MANAGEMENT
Period Ending 6/30/95

Portfolio Manager: Jack Koltes

Assets Under Management: \$870,968,343

Investment Philosophy

Alliance searches for companies likely to experience high rates of earnings growth, on either a cyclical or secular basis. Alliance invests in a range of medium to large growth and 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.

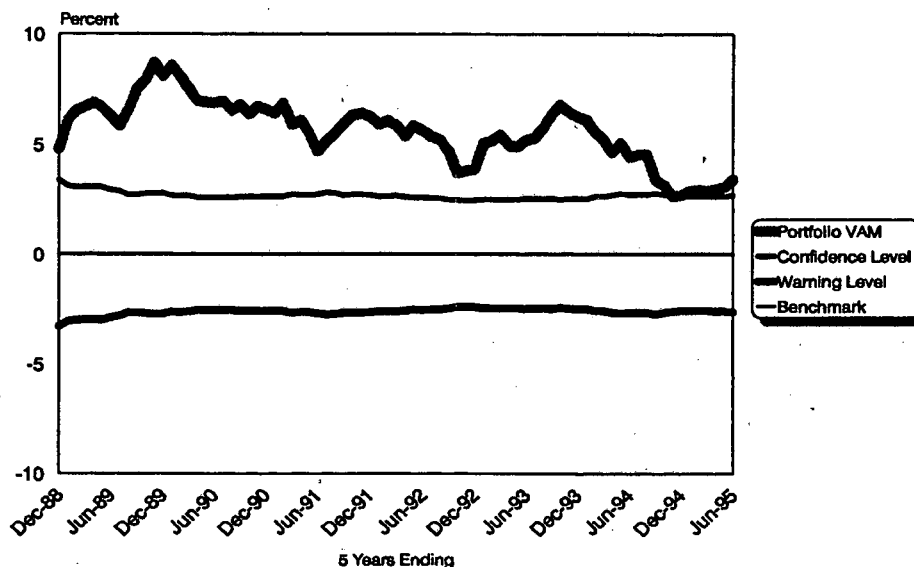
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	14.7%	10.5%
Last 1 year	30.1	27.1
Last 2 years	14.4	13.6
Last 3 years	15.5	12.1
Last 4 years	17.3	12.0
Last 5 years	14.3	10.5
Since Inception (1/84)	17.3	11.9

Recommendation

No action recommended.

ALLIANCE CAPITAL MANAGEMENT
Rolling Five Year Time Periods



Note: Graph uses 80/20 confidence interval.

BRINSON PARTNERS
Period Ending 6/30/95

Portfolio Manager: Jeff Diermeier

Assets Under Management: \$315,612,478

Investment Philosophy

Brinson Partners uses a relative value approach to equity investing. 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 uses their own discounted free cash flow model as their primary analytical tool for estimating the intrinsic value of a company.

**Qualitative Evaluation
 (reported by exception)**

Exceptional strengths are:

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

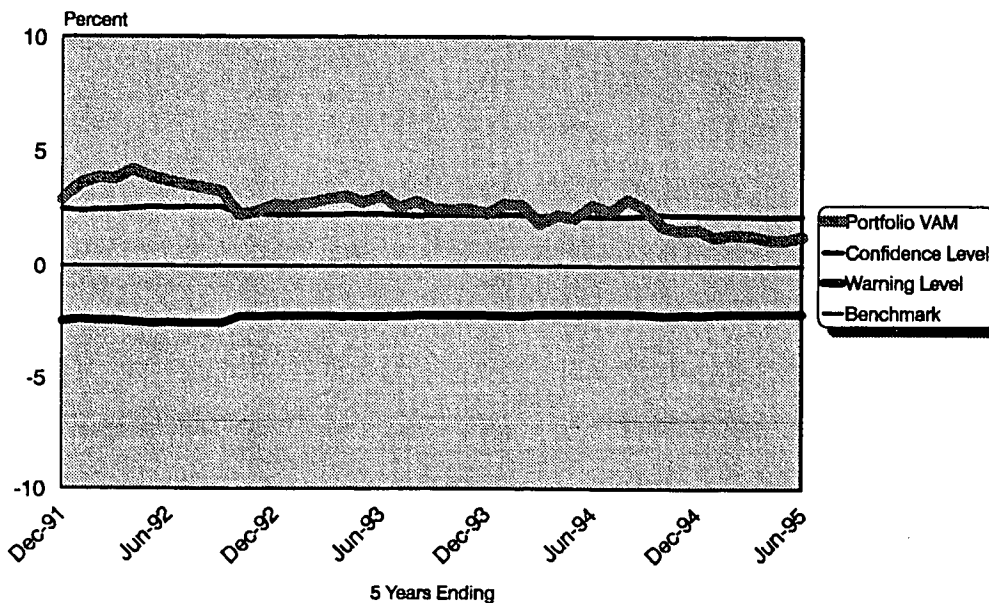
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	9.6%	9.0%
Last 1 year	22.0	24.7
Last 2 years	12.7	12.4
Last 3 years	N/A	N/A
Last 4 years	N/A	N/A
Last 5 years	N/A	N/A
Since Inception (7/93)	12.7	12.4

Recommendation

No action recommended.

BRINSON PARTNERS
Rolling Five Year Time Periods



Note: Shaded area includes performance prior to managing the SBI account. Graph uses 80/20 confidence interval.

FORSTMANN LEFF ASSOCIATES

Period Ending 6/30/95

Portfolio Manager: Joel Leff

Assets Under Management: \$335,404,654

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 equity sectors over the course of a market cycle. The firm tends to purchase liquid, medium to large capitalization stocks. In the past, Forstmann Leff has made sizable market timing moves at any point during a market cycle.

Qualitative Evaluation (reported by exception)

Exceptional strengths are:

- Highly successful and experienced leadership.
- Well acquainted with needs of large clients.

Current concerns are:

- Continuing deterioration in levels of value added.
- Perceived changes in organization and investment approach.

Quantitative Evaluation

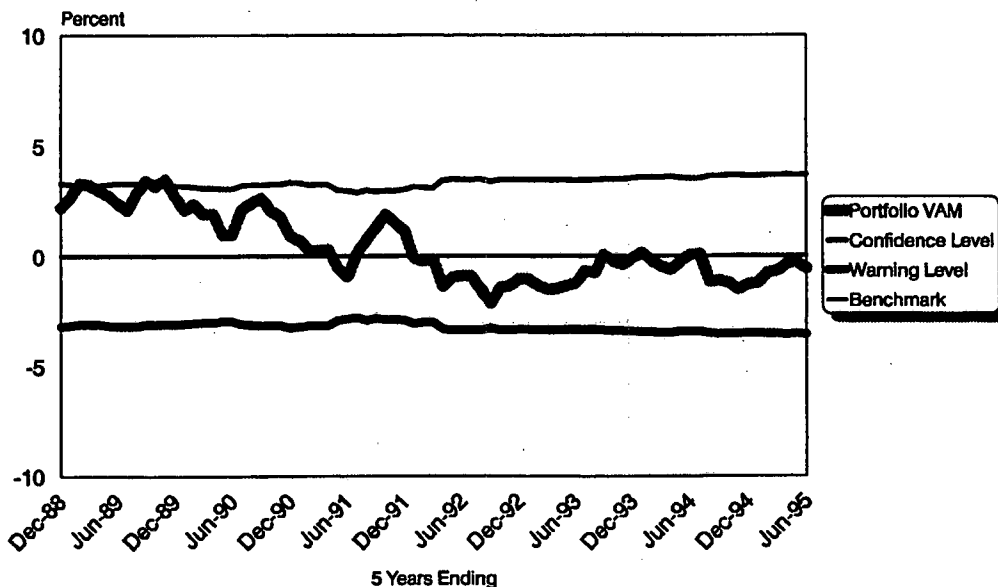
	Actual	Benchmark
Last Quarter	6.6%	8.3%
Last 1 year	19.1	26.5
Last 2 years	9.7	11.5
Last 3 years	10.7	12.4
Last 4 years	10.5	12.4
Last 5 years	10.6	11.2
Since Inception (1/84)	12.2	11.9

Recommendation

Due to concerns regarding Forstmann Leff's research staff and organization, Forstmann Leff is currently being re-interviewed by a special committee.

FORSTMANN-LEFF ASSOCIATES

Rolling Five Year Time Periods



Note: Graph uses 80/20 confidence interval.

FRANKLIN PORTFOLIO ASSOCIATES

Period Ending 6/30/95

Portfolio Manager: John Nagorniak

Assets Under Management: \$441,335,972

Investment Philosophy

Franklin believes that rigorous and consistent application of fundamentally based valuation criteria will produce value added investment returns. Franklin builds a portfolio by using a series of more than 30 integrated computer models that value a universe of 3500 stocks. Their models rank each security based on fundamental momentum, relative value, future cash flow, and supplementary models, then a composite ranking provides one ranked list of securities reflecting their relative attractiveness. Stocks that fall below the median ranking are sold and proceeds reinvested in stocks from the top deciles in the ranking system. They use the BARRA E.2 risk model to monitor the portfolio's systematic risk and industry weightings relative to the selected benchmark to achieve a residual risk of 3.0% to 4.0 for the active portfolio.

Qualitative Evaluation (reported by exception)

Exceptional strengths are:

- Familiar with the needs of large institutional clients.
- Firms investment approach has been consistently applied over a number of markets cycles.
- Highly successful and experienced professionals.
- Organizational continuity and strong leadership.

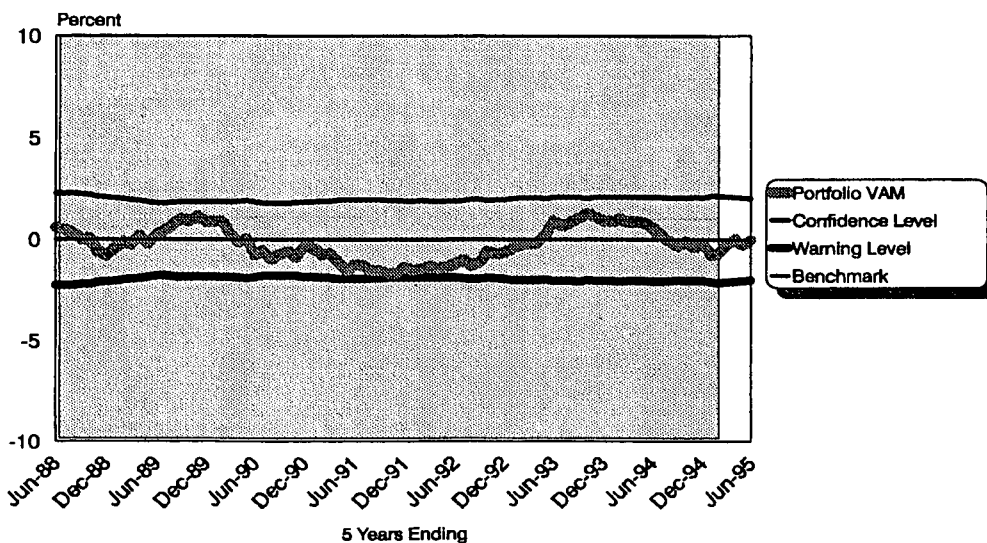
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	8.2%	8.7%
Last 1 year	23.5	24.7
Last 2 years	11.3	12.5
Last 3 years	16.6	14.9
Last 4 years	15.8	14.8
Last 5 years	13.3	13.4
Since Inception (4/89)	13.5	13.0

Recommendation

No action recommended.

FRANKLIN PORTFOLIO
Rolling Five Year Time Periods



Note: Shaded area includes performance prior to managing SBI account. Graph uses 80/20 confidence interval.

GEOCAPITAL CORP.
Period Ending 6/30/95

Portfolio Manager: Barry Fingerhut

Assets Under Management: \$294,309,503

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 and limited competition. In the intrinsic value area, the key factors in this analysis are 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.

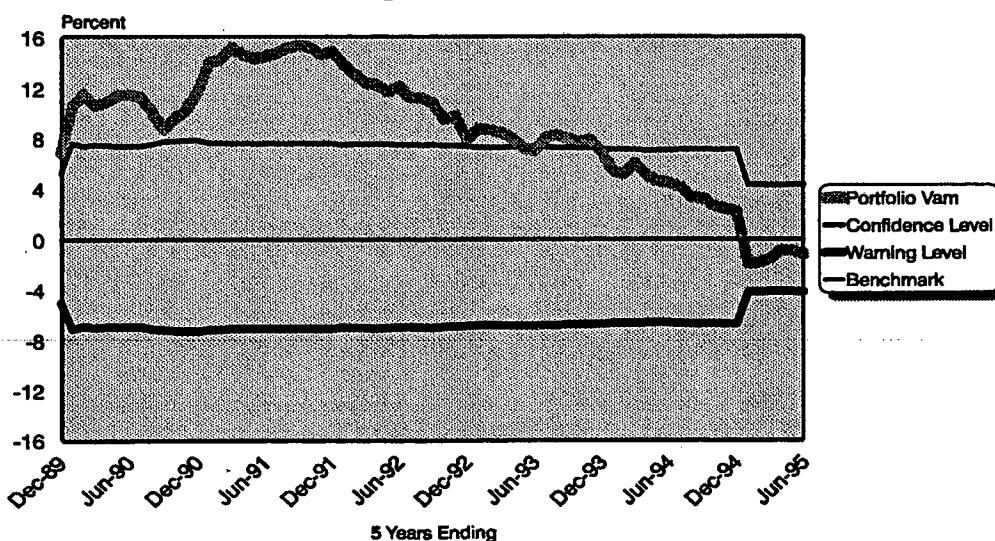
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	6.6%	4.9%
Last 1 year	22.2	32.6
Last 2 years	13.1	17.1
Last 3 years	13.9	21.7
Last 4 years	15.6	18.8
Last 5 years	14.5	15.9
Since Inception (4/90)	15.1	16.4

Recommendation

No action recommended.

**GEOCAPITAL
 Rolling Five Year Time Periods**



Note: Shaded area includes performance prior to managing SBI account.
 Scale differs from other manager VAM graphs. Graph uses 80/20 confidence interval.

INVESTMENT ADVISERS INC.
Period Ending 6/30/95

Portfolio Manager: Julian (Bing) Carlin

Assets Under Management: \$133,649,597

Investment Philosophy

IAI's investment philosophy is to own the highest quality companies which demonstrate sustainable growth. IAI tries to achieve this objective by investing at least 80% of the portfolio in companies which have their headquarters in Minnesota, Wisconsin, Illinois, Iowa, Nebraska, Montana, North Dakota and South Dakota. Twenty percent of the portfolio can be used to purchase large capitalization stocks that display the same quality and growth characteristics but have headquarters outside this region.

**Qualitative Evaluation
 (reported by exception)**

Exceptional strengths are:

- Attractive, unique investment approach.
- Investment style successfully applied over a number of market cycles.

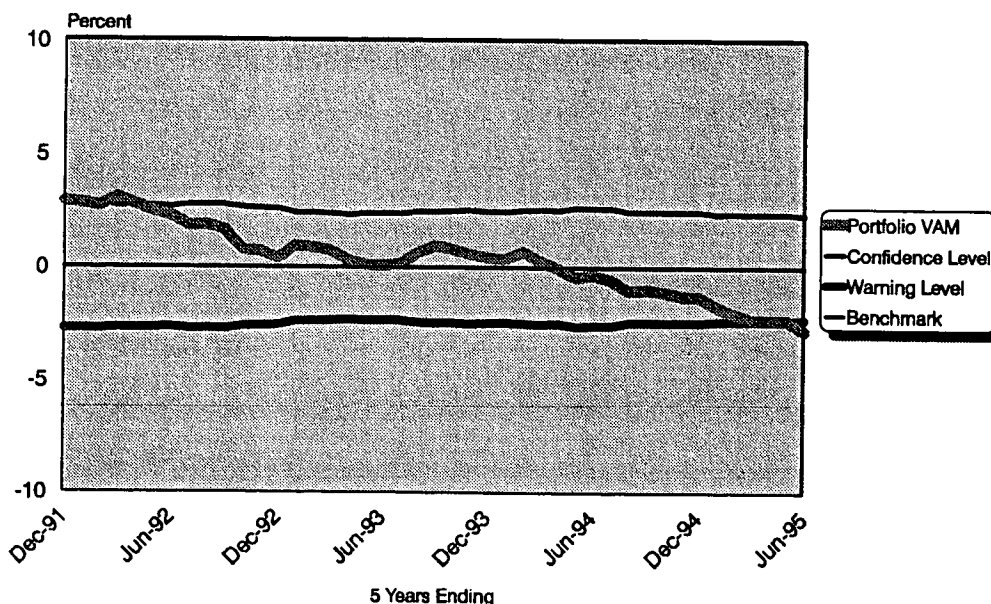
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	8.3%	8.1%
Last 1 year	24.7	25.4
Last 2 years	13.1	13.8
Last 3 years	N/A	N/A
Last 4 years	N/A	N/A
Last 5 years	N/A	N/A
Since Inception (7/93)	13.1	13.8

Recommendation

Per the Manager Continuation Policy, the IAC Domestic Committee should review IAI due to performance below the benchmark line for 1 year. Please refer to the separately attached memo for additional information on IAI.

**INVESTMENT ADVISERS
 Rolling Five Year Time Periods**



Note: Shaded area includes performance prior to managing the SBI account. Graph uses 80/20 confidence interval.

IDS ADVISORY
Period Ending 6/30/95

Portfolio Manager: Pete Anderson

Assets Under Management: \$435,914,349

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 and industry weighting decisions. After the sector weightings have been determined IDS will select the best companies in those sectors based on fundamental analysis by their in-house analysts to reach the desired weightings. 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)**

Exceptional strengths are:

- Investment style consistently and successfully applied over a variety of market environments.
- Familiar with the needs of large institutional clients.

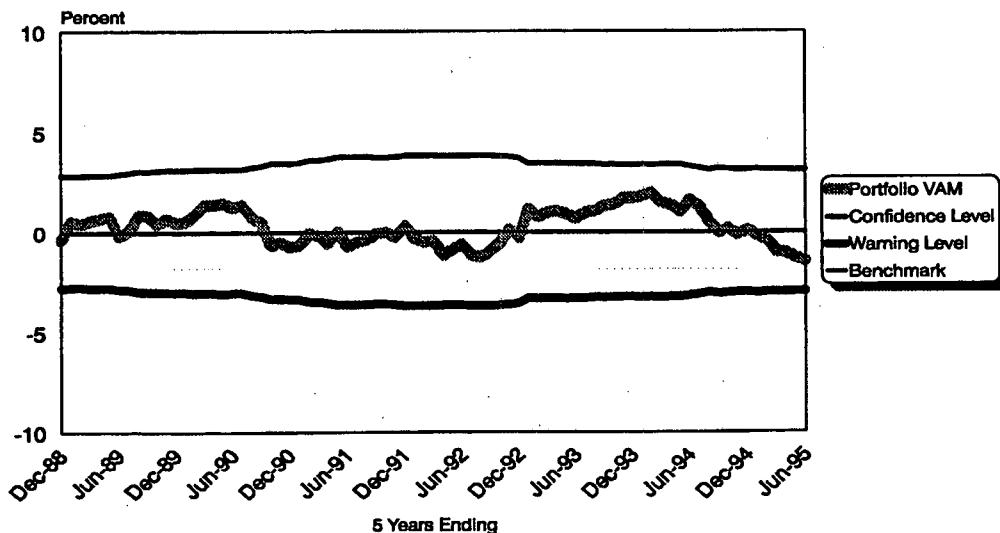
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	9.9%	10.4%
Last 1 year	21.4	26.8
Last 2 years	11.9	14.2
Last 3 years	14.0	15.4
Last 4 years	14.6	15.8
Last 5 years	11.4	13.3
Since Inception (1/84)	14.4	14.3

Recommendation

No action recommended.

IDS ADVISORY
Rolling Five Year Time Periods



Note: Graph uses 80/20 confidence interval.

INDEPENDENCE INVESTMENT ASSOCIATES

Period Ending 6/30/95

Portfolio Manager: Bill Fletcher

Assets Under Management: \$436,883,990

Investment Philosophy

Independence believes that individual stocks which outperform the market always have two characteristics: they are intrinsically cheap and their business is in the process of improving. Independence ranks their universe using a multifactor model. Based on input primarily generated by their internal analysts, the model ranks each stock based on 10 discreet criteria. Independence constricts their portfolio to the top 60% of their ranked universe. The portfolio is optimized 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:

- Attractive, unique investment approach.
- Highly successful and experienced professionals.
- Attractive, unique investment approach.

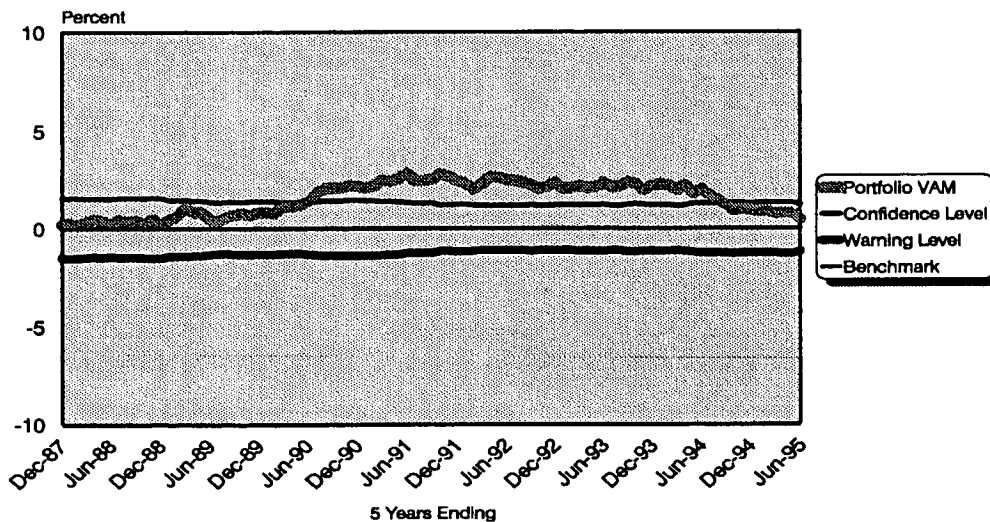
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	9.7%	9.6%
Last 1 year	22.5	26.1
Last 2 years	12.1	12.9
Last 3 years	13.4	13.7
Last 4 years	N/A	N/A
Last 5 years	N/A	N/A
Since Inception (2/92)	12.5	12.6

Recommendation

No action recommended.

INDEPENDENCE INVESTMENT ASSOCIATES Rolling Five Year Time Periods



Note: Shaded area includes performance prior to managing SBI account. Graph uses 80/20 confidence Interval.

JUNDT ASSOCIATES
Period Ending 6/30/95

Portfolio Manager: James Jundt

Assets Under Management: \$242,836,079

Investment Philosophy

Jundt Associates' investment philosophy is growth oriented with a focus on companies generating significant revenue increases. They concentrate 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 revenue growth of 15% or greater. Jundt utilizes a bottom-up stock selection process combined with a top-down theme overlay. The firm attempts to identify five to seven investment themes and typically invests three to five stocks in each theme.

**Qualitative Evaluation
 (reported by exception)**

Exceptional strengths are:

- Attractive, unique investment approach.
- Investment style has been consistently applied over a number of market cycles.

Current concerns are:

- Significant underperformance over the past year.

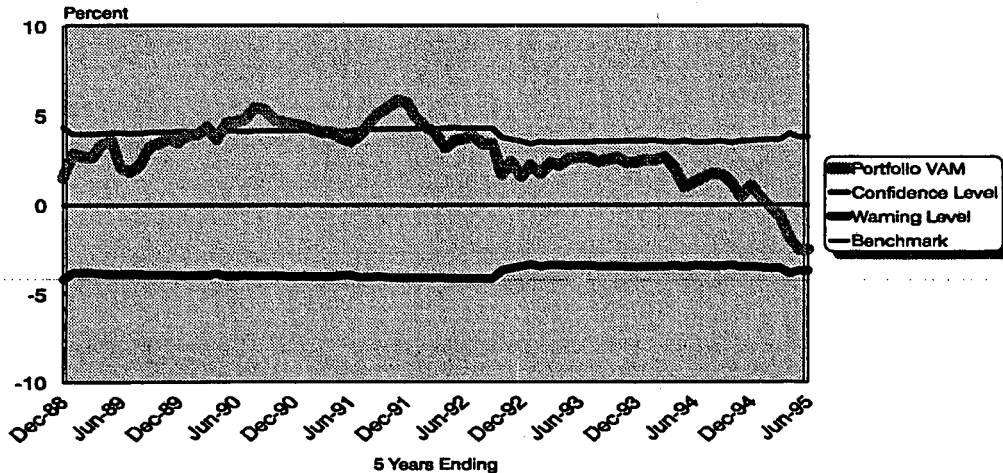
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	6.1%	11.2%
Last 1 year	26.2	32.9
Last 2 years	9.1	16.2
Last 3 years	N/A	N/A
Last 4 years	N/A	N/A
Last 5 years	N/A	N/A
Since Inception (7/93)	9.1	16.2

Recommendation

No action recommended.

JUNDT ASSOCIATES
Rolling Five Year Time Periods



Note: Shaded area includes performance prior to managing the SBI account. Graph uses 80/20 confidence interval.

LINCOLN CAPITAL MANAGEMENT
Period Ending 6/30/95

Portfolio Manager: Parker Hall

Assets Under Management: \$320,655,668

Investment Philosophy

Lincoln Capital concentrates on established medium to large capitalization companies that have demonstrated historically strong growth and will continue to grow. The firm uses traditional fundamental company analysis and relative price/earnings valuation disciplines in its stock selection process. In addition, companies held by Lincoln generally exhibit premium price/book ratios, high return on equity, strong balance sheets and moderate earnings variability.

Qualitative Evaluation
(reported by exception)

Exceptional strengths are:

- Organizational continuity and strong leadership.
- Familiar with the needs of large clients.
- Investment style has been consistently applied over a number of market cycles.

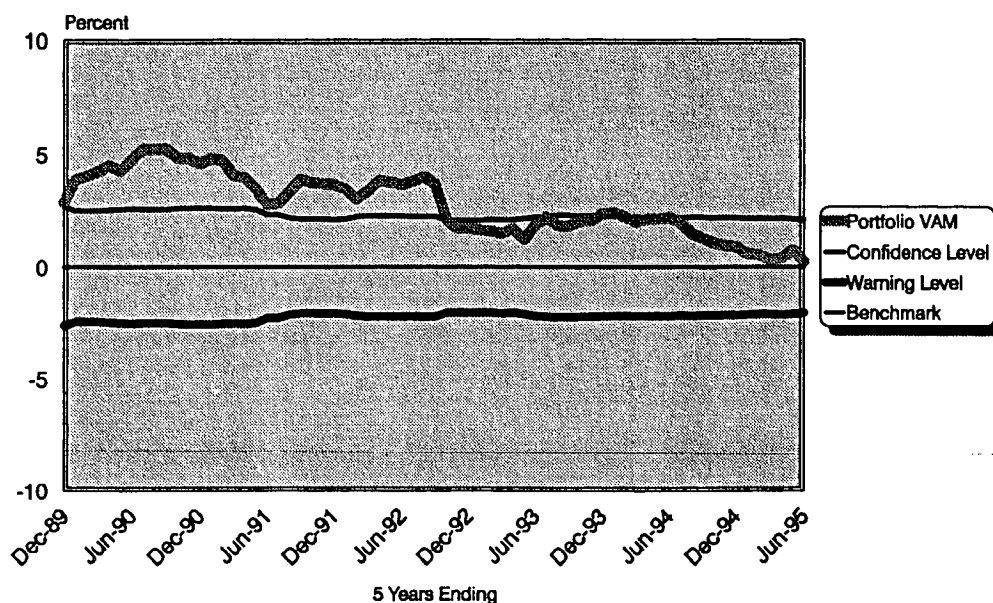
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	11.1%	9.6%
Last 1 year	30.7	29.5
Last 2 years	15.1	14.2
Last 3 years	N/A	N/A
Last 4 years	N/A	N/A
Last 5 years	N/A	N/A
Since Inception (7/93)	15.1	14.2

Recommendation

No action recommended.

LINCOLN CAPITAL MANAGEMENT
Rolling Five Year Time Periods



Note: Shaded area includes performance prior to managing the SBI account. Graph uses 80/20 confidence interval.

LYNCH & MAYER
Period Ending 6/30/95

Portfolio Manager: Dennis Lynch, Ed Petner

Assets Under Management: \$300,717,266

Investment Philosophy

Lynch & Mayer invest primarily in high-quality, medium to large capitalization growth stocks. They believe that outstanding investments are a function of corporate earnings growth that is considerably above historical trends or consensus expectations. Lynch & Mayer are bottom up stock pickers and rely on very little economic analysis in their selection process. The firm 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:

—Highly successful and experienced professionals.

Current concerns are:

—Continuing deterioration in levels of value added.
 —Perceived changes in organization and investment process.

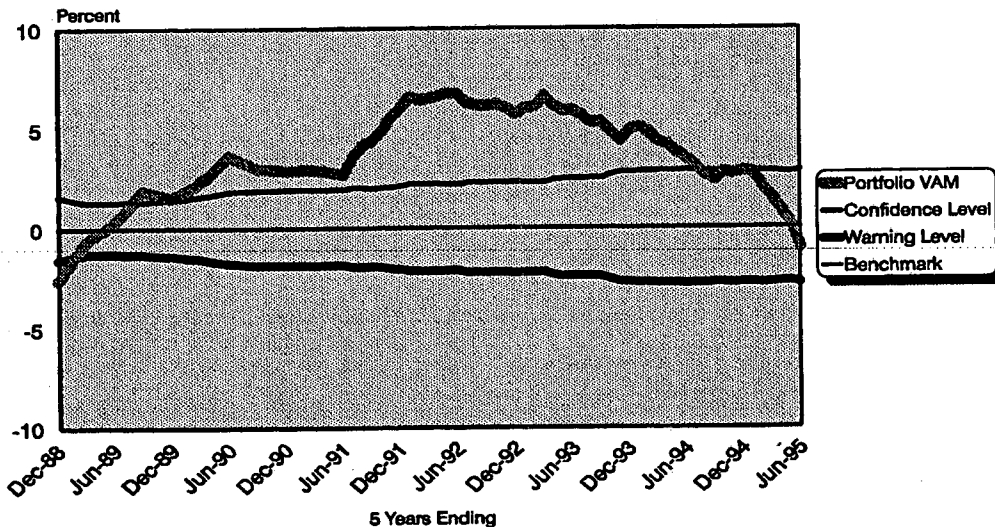
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	8.5%	15.0%
Last 1 year	23.0	34.8
Last 2 years	9.4	17.8
Last 3 years	11.0	18.1
Last 4 years	N/A	N/A
Last 5 years	N/A	N/A
Since Inception (2/92)	9.1	14.4

Recommendation

Due to concerns about Lynch and Mayer's investment process and organizational changes, Lynch & Mayer is currently being re-interviewed by a special committee.

LYNCH & MAYER
Rolling Five Year Time Periods



Note: Shaded area includes performance prior to managing SBI account. Graph uses 80/20 confidence interval.

OPPENHEIMER CAPITAL
Period Ending 6/30/95

Portfolio Manager: John Lindenthal

Assets Under Management: \$326,426,727

Investment Philosophy

Oppenheimer's objectives are to: 1) preserve capital in falling markets; 2) manage risk in order to achieve less volatility than the market; and 3) produce returns greater than the market indices, the inflation rate and a universe of comparable portfolios with similar objectives. The firm achieves its objectives by purchasing securities considered to be undervalued on the basis of known data and strict financial standards and by making timely changes in the asset mix. Based on its outlook on the market and the economy, Oppenheimer will make moderate shifts between cash and equities. Oppenheimer focuses on five key variables when evaluating companies: management, financial strength, profitability, industry position and valuation.

Qualitative Evaluation
(reported by exception)

Exceptional strengths are:

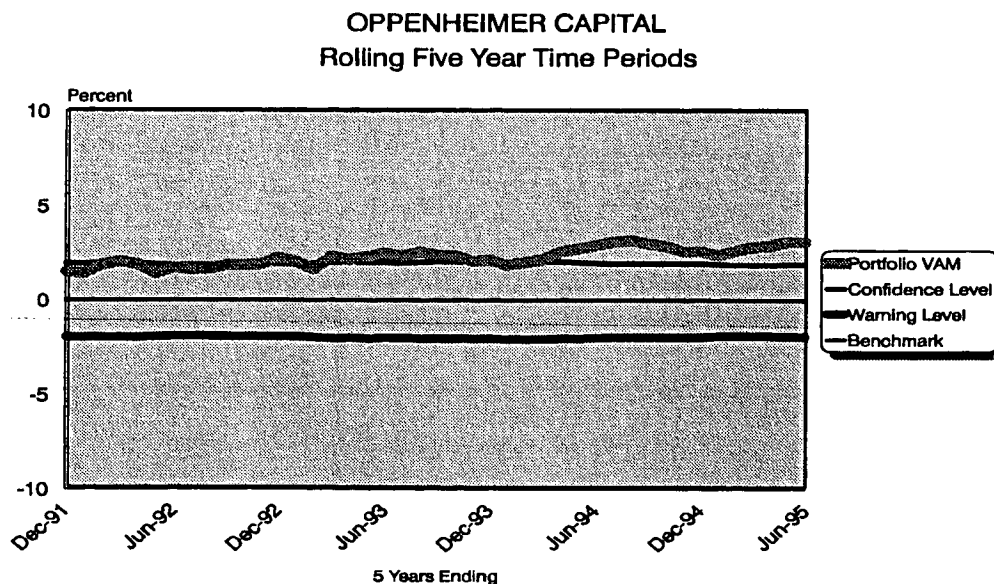
- Highly successful and experienced professionals.
- Familiar with the needs of large institutional clients.
- Investment style has been consistently applied over a number of market cycles.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	11.1%	8.0%
Last 1 year	27.9	22.3
Last 2 years	14.7	11.6
Last 3 years	N/A	N/A
Last 4 years	N/A	N/A
Last 5 years	N/A	N/A
Since Inception (7/93)	14.7	11.6

Recommendation

No action recommended.



Note: Shaded area includes performance prior to managing the SBI account. Graph uses 80/20 confidence interval.

WADDELL & REED ASSET MANAGEMENT
 Period Ending 6/30/95

Portfolio Manager: Henry Herrmann

Assets Under Management: \$449,654,698

Investment Philosophy

Waddell & Reed focuses its attention primarily on smaller capitalization growth stocks. However, the firm has demonstrated a willingness to make significant bets against this investment approach for extended periods of time and has been very eclectic in its choice of stocks in recent years. 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.

Current concerns are:

—Significant organizational changes have occurred at the firm recently.

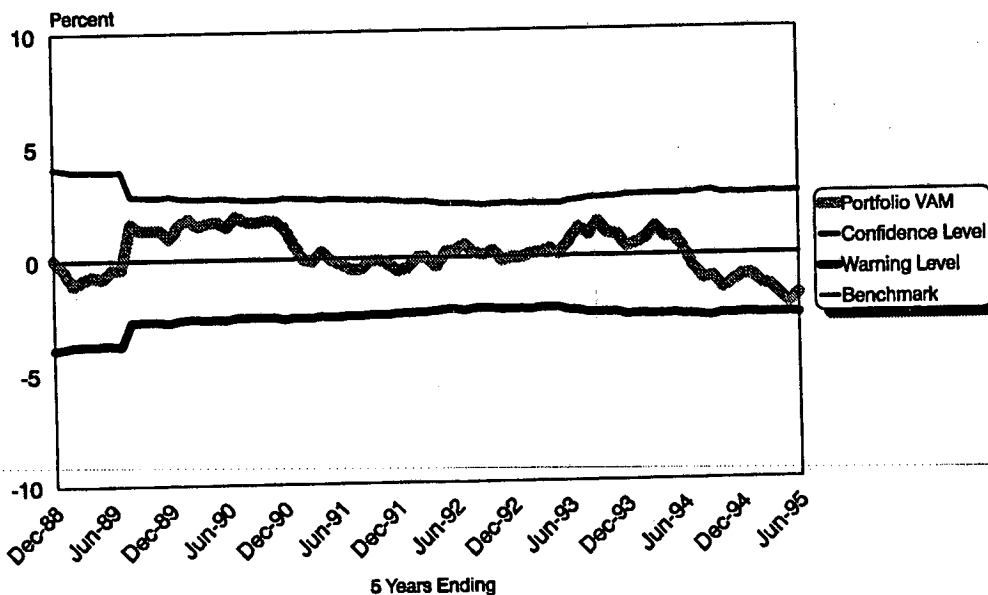
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	10.0%	10.1%
Last 1 year	20.6	26.5
Last 2 years	11.0	15.7
Last 3 years	15.2	16.6
Last 4 years	14.5	15.3
Last 5 years	11.1	13.1
Since Inception (1/84) (1/84)	12.1	12.1

Recommendation

Due to concerns about Waddell & Reed's organizational changes, Waddell & Reed is currently being re-interviewed by a special committee.

WADDELL & REED
 Rolling Five Year Time Periods



Note: Graph uses 80/20 confidence interval.

WEISS, PECK & GREER
 Period Ending 6/30/95

Portfolio Manager: Melville Straus

Assets Under Management: \$231,802,708

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 growing industries where there is a potential for a major acceleration in earnings growth. The firm also believes that superior stock selection can be achieved through in-depth fundamental company research.

Qualitative Evaluation
 (reported by exception)

Exceptional strengths are:

- Highly successful and experienced professionals.
- Investment style has been consistently applied over a number of market cycles.

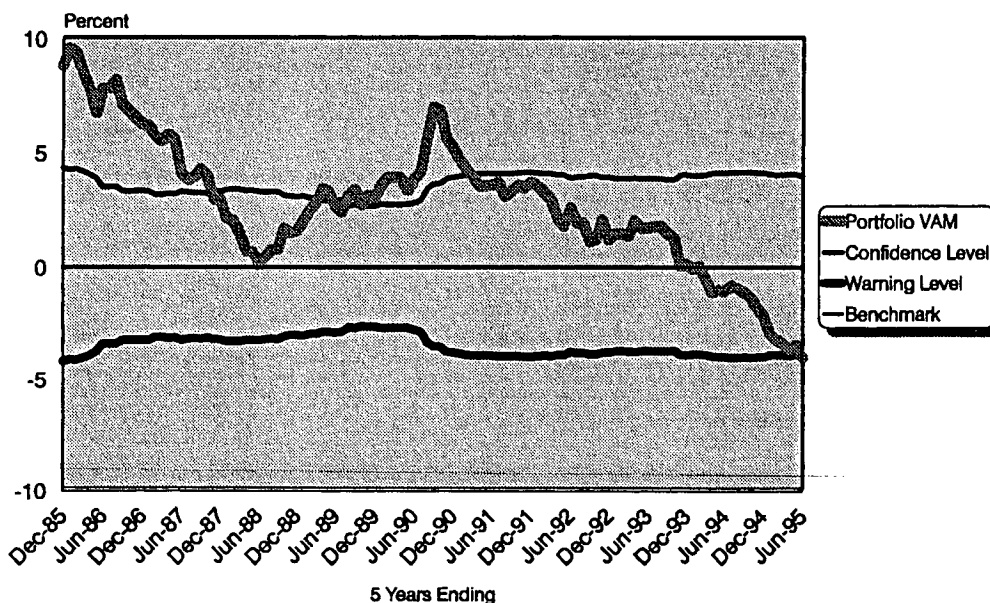
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	9.7%	11.8%
Last 1 year	26.2	34.2
Last 2 years	7.2	15.2
Last 3 years	N/A	N/A
Last 4 years	N/A	N/A
Last 5 years	N/A	N/A
Since Inception (7/93)	7.2	15.2

Recommendation

Per the Manager Continuation Policy, the IAC Domestic Committee Should review Weiss Peck & Greer due to performance below the benchmark line for 12 months. Please refer to separately attached memo for additional information on Weiss Peck & Greer.

WEISS, PECK & GREER
 Rolling Five Year Time Periods



Note: Shaded area includes performance prior to managing SBI account. Graph uses 80/20 confidence interval.

FRANKLIN PORTFOLIO ASSOCIATES

Period Ending 6/30/95

Portfolio Manager: John Nagorniak

Assets Under Management: \$913,563,545

**Investment Philosophy
Semi-Passive**

Franklin believes that rigorous and consistent application of fundamentally based valuation criteria will produce value added investment returns. Franklin builds a portfolio by using a series of more than 30 integrated computer models that value a universe of 3500 stocks. Their models rank each security based on fundamental momentum, relative value, future cash flow, and supplementary models, then a composite ranking provides one ranked list of securities reflecting their relative attractiveness. Stocks that fall below the median ranking are sold and proceeds reinvested in stocks from the top deciles in the ranking system. They use the BARRA E.2 risk model to monitor the portfolio's systematic risk and industry weightings relative to the selected benchmark. For this semi-passive mandate, they seek to achieve a residual risk of 1.5% or less. 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 markets cycles.
- Highly successful and experienced professionals.
- Organizational continuity and strong leadership.

Quantitative Evaluation

	Actual	Benchmark*
Last Quarter	8.2%	8.1%
Last 1 year	N/A	N/A
Last 2 years	N/A	N/A
Last 3 years	N/A	N/A
Last 4 years	N/A	N/A
Last 5 years	N/A	N/A
Since Inception (1/95)	17.7	18.0

Recommendation

No action required.

* Completeness Fund

VAM graph will be created for period ending 12/31/96.

J.P. MORGAN INVESTMENT MANAGEMENT, INC.
Period Ending 6/30/95

Portfolio Manager: Rick Nelson

Assets Under Management: \$940,130,322

Investment Philosophy
Semi-Passive

J.P. Morgan believes that superior stock selection is necessary to achieve excellent investment results. To accomplish this objective, they use fundamental research and a systematic valuation model. Analysts forecast the earnings and dividends for the 650 stock universe and enter these into a stock valuation model that calculates an expected return for each security. The stocks are ranked according to their expected return within their economic sector. Stocks most undervalued are placed in the first quintile. The portfolio includes stocks from the first four quintiles always favoring the highest ranked stocks whenever possible and sells those in the fifth quintile. In addition, the portfolio will closely approximate the sector, style, and security weightings of the index chosen by the plan sponsor. The firm remains fully invested at all times.

Qualitative Evaluation
(reported by exception)

Exceptional strengths are:

- Familiar with the needs of large institutional clients.
- Highly successful and experienced professionals.
- Organizational continuity and strong leadership.

Quantitative Evaluation

	Actual	Benchmark*
Last Quarter	8.5%	8.1%
Last 1 year	N/A	N/A
Last 2 years	N/A	N/A
Last 3 years	N/A	N/A
Last 4 years	N/A	N/A
Last 5 years	N/A	N/A
Since Inception (1/95)	18.5	18.0

Recommendation

No action required.

* Completeness Fund

VAM graph will be created for period ending 12/31/96.

WELLS FARGO INSTITUTIONAL TRUST COMPANY, N.A.
Period Ending 6/30/95

Portfolio Manager: Nancy Feldkircher

Assets Under Management: \$926,811,729

Investment Philosophy
Semi-Passive

The Core Alpha Model desegregates individual equity returns for each of the 3500 stocks in their universe into three components (fundamental, expectation, and technical). The fundamental factors look at measures of underlying company value including earnings, book value, cash flow, and sales. These factors help identify securities that trade at prices below their true economic value. The expectational factors incorporate future earnings and growth rate forecasts made by over 2500 security analysts. The technical factors provide a measure of recent changes in company fundamentals, consensus expectations, and performance. An alpha is then calculated. The estimated alphas are used in a portfolio optimization algorithm to identify the optimal portfolio.

Qualitative Evaluation
(reported by exception)

Exceptional strengths are:

- Familiar with the needs of large institutional clients.
- Highly successful and experienced professionals.
- Attractive, unique investment approach.

Quantitative Evaluation

	Actual	Benchmark*
Last Quarter	9.3%	8.1%
Last 1 year	N/A	N/A
Last 2 years	N/A	N/A
Last 3 years	N/A	N/A
Last 4 years	N/A	N/A
Last 5 years	N/A	N/A
Since Inception (1/95)	19.2	18.0

Recommendation

No action required.

* Completeness Fund

VAM graph will be created for period ending 12/31/96.

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CIC ASSET MANAGEMENT
Period Ending 6/30/95

Portfolio Manager: Jorge Castro

Assets Under Management: \$35,669,975

Investment Philosophy

CIC Asset Management (CIC) uses a disciplined relative value approach to managing equities. CIC believes that purchasing companies at attractive prices provides superior long-term performance with lower volatility. This investment process is designed for clients who desire equity market exposure with both incremental value added and downside protection due to reasonable dividend yields, moderate price to book values and low normalized price to earnings ratios. Finally, the process provides a synergy between quantitative valuation techniques and "Graham & Dodd" fundamental analyses.

Quantitative Evaluation

	Actual	Benchmark*
Last Quarter	7.0%	9.0%
Last 1 Year	19.0	25.4
Since Inception (4/94)	14.9	20.3

* S&P 500 from 4/94 thru 3/95 and
 Russell 1000 Value since 4/95

COHEN KLINGENSTEIN & MARKS INCORPORATED
Period Ending 6/30/95

Portfolio Manager: George Cohen

Assets Under Management: \$38,583,633

Investment Philosophy

Cohen Davis & Marks Inc. (CDM) seeks to outperform the market by focusing on two variables: 1) economic cycles; and 2) security valuation. Within economic cycles, they believe that stocks exhibit predictable patterns that reflect changing expectations on corporate profits and interest rates. Similarly, they believe that stock prices normally reflect earnings expectations. CDM exploits short run inefficiencies through an unbiased process that relates the price of a stock to the consensus earnings expectations.

Quantitative Evaluation

	Actual	Benchmark*
Last Quarter	9.9%	9.5%
Last 1 Year	26.1	26.1
Since Inception (4/94)	22.3	20.8

* S&P 500

COMPASS CAPITAL MANAGEMENT

Period Ending 6/30/95

Portfolio Manager: Charles Kelley

Assets Under Management: \$38,029,420

Investment Philosophy

Compass Capital Management (CCM) combines aspects of growth and value investing to achieve the proper blend of return (growth) and risk (value). They use a computer based data network to screen for large, well established companies whose earnings grow in spite of a weak economy and companies whose earnings have grown well over long time periods, but which may experience earnings pressure with downturns in the economy. Particular focus is given to growth in sales, earnings, dividends, book value and the underlying industry. Due to their "growing company" orientation, their portfolios generally hold no utility, bank, deep cyclical (auto companies for example), or oil and gas stocks.

Quantitative Evaluation

	Actual	Benchmark*
Last Quarter	7.2%	8.7%
Last 1 Year	28.9	24.1
Since Inception (4/94)	20.9	18.3

* S&P 500 (Equal Weight)

KENNEDY CAPITAL MANAGEMENT

Period Ending 6/30/95

Portfolio Manager: Richard Sinise

Assets Under Management: \$33,745,811

Investment Philosophy

Kennedy Capital Management (KCM) is dedicated to exploiting pricing inefficiencies in under-followed and misunderstood small capitalization stocks. They believe that stocks are efficiently priced where there is a proper distribution of information. However, many emerging growth companies suffer from lack of analytical coverage and information flow, and therefore, are "invisible" to institutional investors. KCM believes it is this lack of information which creates pricing inefficiencies. They anticipate that by closing this information gap they can transform these holdings into attractive institutional candidates. This, in turn, will increase the price of the stock.

Quantitative Evaluation

	Actual	Benchmark*
Last Quarter	9.0%	9.4%
Last 1 Year	16.1	20.1
Since Inception (4/94)	9.9	12.1

* Russell 2000

NEW AMSTERDAM PARTNERS
Period Ending 6/30/95

Portfolio Manager: Michelle Clayman

Assets Under Management: \$34,448,919

Investment Philosophy

New Amsterdam Partners believe that investment results are evaluated by actual return, and therefore, investment opportunities should be evaluated by expected return. They believe that all valid techniques depend on forecasts of the amounts and timing of future cash flows. Thus, the firm focuses on forecasted earnings growth, yield, price-to-book ratio, and forecasted return on equity. They believe that the disciplined application of their valuation techniques in conjunction with sound financial analysis of companies, is the key to understanding and maximizing investment returns.

Quantitative Evaluation

	Actual	Benchmark*
Last Quarter	7.1%	7.9%
Last 1 Year	20.3	24.4
Since Inception (4/94)	11.7	18.3

* New Amsterdam began comparing results to a custom benchmark as of 1/1/95. Benchmark results have been restated from inception date.

VALENZUELA CAPITAL MANAGEMENT
Period Ending 6/30/95

Portfolio Manager: Peter McCarthy

Assets Under Management: \$35,099,930

Investment Philosophy

Valenzuela Capital Management's (VCM) believes that stock selection and adherence to valuation analysis are the backbone of superior performance. Their investment philosophy is one of risk averse growth. VCM seeks companies undergoing strong rates of change in earnings, cash flow and returns. These companies are experiencing positive changes in revenues, gross and operating margins and financial structure. To be considered for investment, these stocks must sell at or below market valuations. VCM believe that below market valuations provide downside protection during weak market periods. In strong markets the portfolios will be driven by both earnings growth and multiple expansion.

Quantitative Evaluation

	Actual	Benchmark*
Last Quarter	5.9%	9.5%
Last 1 Year	15.5	26.1
Since Inception (4/94)	13.4	20.8

* S&P 500

WILKE/THOMPSON CAPITAL MANAGEMENT INC.
Period Ending 6/30/95

Portfolio Manager: Mark Thompson

Assets Under Management: \$39,786,977

Investment Philosophy

The investment philosophy of Wilke/Thompson (W/T) is to invest in high quality growth companies that demonstrate the ability to sustain strong secular earnings growth, notwithstanding overall economic conditions. W/T's investment approach involves a bottom-up fundamental process. The stock selection process favors companies with strong earnings, high unit growth, a proprietary market niche, minimum debt, conservative accounting and strong management practices. They formulate investment ideas by networking with the corporate managers of their current and prospective holdings, as well as with regional brokers, venture capitalists, and other buy-side portfolio managers.

Quantitative Evaluation

	Actual	Benchmark*
Last Quarter	16.5%	7.9%
Last 1 Year	41.9	25.2
Since Inception (4/94)	25.4	13.5

* Wilke/Thompson began comparing results to a custom benchmark as of 1/1/95. Benchmark results have been restated from inception date.

WINSLOW CAPITAL MANAGEMENT
Period Ending 6/30/95

Portfolio Manager: Clark Winslow

Assets Under Management: \$37,331,326

Investment Philosophy

Winslow Capital Management (WCM) believes that investing in companies with above average earnings growth provide the best opportunities for superior portfolio returns over time. WCM believes that a high rate of earnings growth is often found in medium capitalization growth companies of \$1 to \$10 billion market capitalization. Thus, to seek superior portfolio returns while maintaining good liquidity, Winslow Capital emphasizes a growth strategy buying securities of both medium and large cap companies. The objective is to achieve a weighted average annual earnings growth rate of 15-20% over a 2-3 year time horizon.

Quantitative Evaluation

	Actual	Benchmark*
Last Quarter	8.3%	9.8%
Last 1 Year	28.0	30.5
Since Inception (4/94)	19.1	22.7

* Russell 1000 Growth

ZEVENBERGEN CAPITAL INC
Period Ending 6/30/95

Portfolio Manager: Nancy Zevenbergen

Assets Under Management: \$36,065,476

Investment Philosophy

Zevenbergen is an equity growth manager. The investment philosophy is based on the belief that earnings drive stock prices while quality provides capital protection. Hence, portfolios are constructed with companies showing above-average earnings growth prospects and strong financial characteristics. They consider diversification for company size, expected growth rates and industry weightings to be important risk control factors. Zevenbergen uses a bottom-up fundamental approach to security analysis. Research efforts focus on finding companies with superior products or services showing consistent profitability. Attractive buy candidates are reviewed for sufficient liquidity and to potential diversification. The firm emphasizes that they are not market timers.

Quantitative Evaluation

	Actual	Benchmark*
Last Quarter	10.4%	9.8%
Last 1 Year	26.7	30.5
Since Inception (4/94)	15.9	22.7

* Russell 1000 Growth

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STATE BOARD OF INVESTMENT

Bond Manager Evaluation Reports

Second Quarter, 1995

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DOMESTIC BOND MANAGERS
Period Ending 6/30/95

Current Managers	Quarter		1 Year		3 years		5 Years		Since (1)		Market Value (in millions)	Pool %
	Actual	Bmk	Actual	Bmk	Actual	Bmk	Actual	Bmk	Actual	Bmk		
	%	%	%	%	%	%	%	%	%	%		
BEA	6.9	6.1	13.5	12.5					5.9	5.5	\$312.92	4.7%
IAI	4.6	6.1	10.4	12.5	7.9	7.6	9.8	9.5	11.8	11.7	499.72	7.5%
Miller	6.1	6.1	12.4	12.5	8.2	7.6	10.4	9.5	11.8	11.7	561.78	8.4%
Standish	5.9	6.1	11.3	12.5					4.7	5.5	503.93	7.5%
Western	7.1	6.1	14.7	12.5	9.2	7.6	10.8	9.6	12.9	11.6	961.30	14.3%
IDS (2)	7.1	6.4	13.5	12.7					5.9	5.5	267.45	4.0%
TCW (3)	6.8	5.2	13.7	12.2					4.2	5.5	258.62	3.9%
Semi-Passive												
Fidelity (4)	6.0	6.1	11.2	12.5	7.7	7.6	9.7	9.5	9.8	9.6	1,105.84	16.5%
Goldman (4)	5.9	6.1	12.7	12.5					5.9	5.5	1,124.33	16.8%
Lincoln (4)	5.9	6.1	12.7	12.5	7.8	7.6	9.6	9.5	9.7	9.6	1,111.43	16.6%
											\$6,707.32	100.0%
									Since 7/1/84			
Current Aggregate	6.1	6.1	12.5	12.5	8.1	7.6	10.0	9.5	12.1	11.7		
Historical Aggregate (5)	6.1	6.1	12.5	12.5	8.0	7.6	9.9	9.5	11.6	11.5		
Lehman Aggregate (6)		6.1		12.6		7.6		9.5		11.0		

- (1) Since retention by the SBI. Time period varies for each manager.
- (2) Govt./Corp. only
- (3) Mortgages only
- (4) Semi-passive manager
- (5) Includes performance of terminated managers
- (6) Prior to July 1994, this index reflects the Salomon BIG

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BEA ASSOCIATES
Period Ending 6/30/95

Portfolio Manager: Bob Moore

Assets Under Management: \$312,916,602

Investment Philosophy

BEA's investment approach focuses on individual bond selection and on sector selection rather than short term interest rate forecasting. BEA keeps the duration close to the benchmark but may be slightly longer or shorter depending on their long-term economic outlook. 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.

**Qualitative Evaluation
(reported by exception)**

Exceptional strengths are:

- Highly successful and experienced professionals.
- Extensive option analysis capabilities.

Current concerns are:

- The firm has experienced organizational changes and acquired a new business unit.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	6.9%	6.1%
Last 1 year	13.5	12.5
Last 2 years	5.9	5.5
Last 3 years	N/A	N/A
Last 4 years	N/A	N/A
Last 5 years	N/A	N/A
Since Inception (7/93)	5.9	5.5

Recommendations

Manager was placed on probation in June 1995 due to organizational changes and its merger with CS First Boston. Upon review of the changes and discussions with the new personnel, staff recommends that BEA be taken off of probation.

VAM graph will be drawn for period ending 9/30/95.

INVESTMENT ADVISERS
Period Ending 6/30/95

Portfolio Manager: Larry Hill

Assets Under Management: \$499,724,379

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 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 added value over the long term. Recently, this strategy has not been as successful.

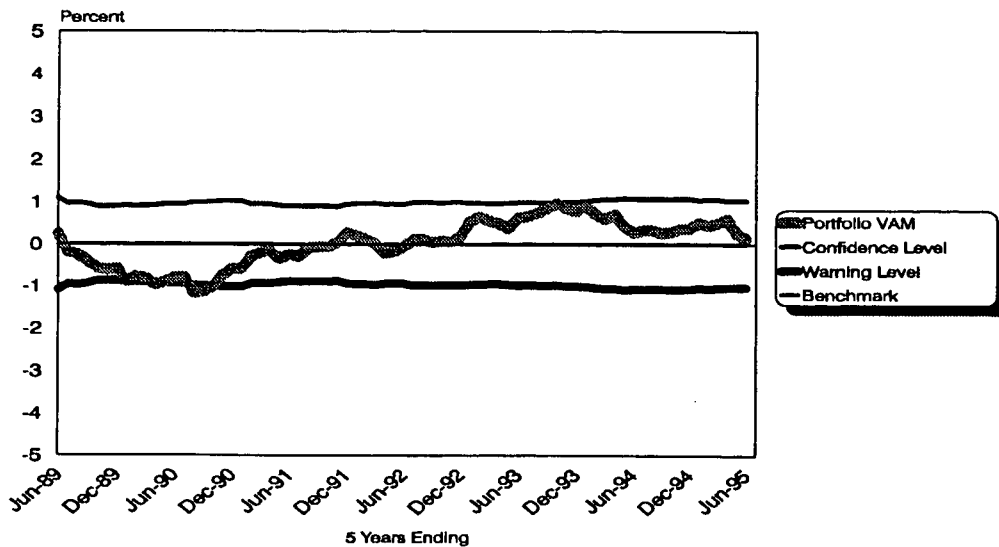
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	4.6%	6.1%
Last 1 year	10.4	12.5
Last 2 years	4.1	5.5
Last 3 years	7.9	7.6
Last 4 years	9.7	9.3
Last 5 years	9.8	9.5
Since Inception (7/84)	11.8	11.7

Recommendations

No action recommended.

**Investment Advisers
 Rolling Five Year Time Periods**



Note: Graph uses 80/20 confidence interval.

MILLER ANDERSON & SHERRERD
 Period Ending 6/30/95

Portfolio Manager: Tom Bennett

Assets Under Management: \$561,780,821

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 firms strengths continue to be:

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

Current concerns are:

- Miller Anderson has reached an agreement to be sold to Morgan Stanley Asset Management. Staff does not believe this transaction will adversely impact the SBI's portfolio.

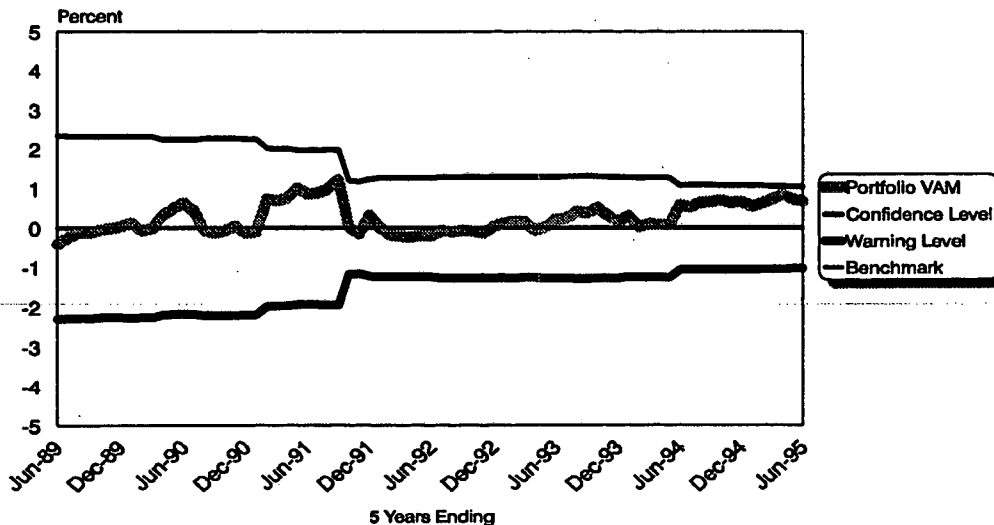
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	6.1%	6.1%
Last 1 year	12.4	12.5
Last 2 years	5.1	5.5
Last 3 years	8.2	7.6
Last 4 years	10.3	9.2
Last 5 years	10.4	9.5
Since Inception (7/84)	11.8	11.7

Recommendations

No action recommended.

MILLER ANDERSON
 Rolling Five Year Time Periods



Note: Graph uses 80/20 confidence interval.

STANDISH, AYER & WOOD
Period Ending 6/30/95

Portfolio Manager: Austin Smith

Assets Under Management: \$503,926,636

Investment Philosophy

Standish adds value by capitalizing on market inefficiencies and trading actively through intra and inter-sector swapping. The firm does not forecast interest rates but adds value to the portfolio by buying non-Treasury issues. Key to the approach is active sector trading and relative spread analysis of both sectors and individual issues. In addition to sector spreads, the firm also analyzes how secular trends affect bond pricing. The firm believes that 65% of its value added comes from inter-sector swapping in non-government sectors.

**Qualitative Evaluation
(reported by exception)**

Exceptional strengths are:

- Highly successful and experienced professionals
- Extensive corporate research capabilities.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	5.9%	6.1%
Last 1 year	11.3	12.5
Last 2 years	4.7	5.5
Last 3 years	N/A	N/A
Last 4 years	N/A	N/A
Last 5 years	N/A	N/A
Since Inception (7/93)	4.7	5.5

Recommendations

No action recommended.

VAM graph will be drawn for period ending 9/30/95

WESTERN ASSET MANAGEMENT
Period Ending 6/30/95

Portfolio Manager: Kent Engel

Assets Under Management: \$961,303,040

Investment Philosophy

Western recognizes the importance of interest rate 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.

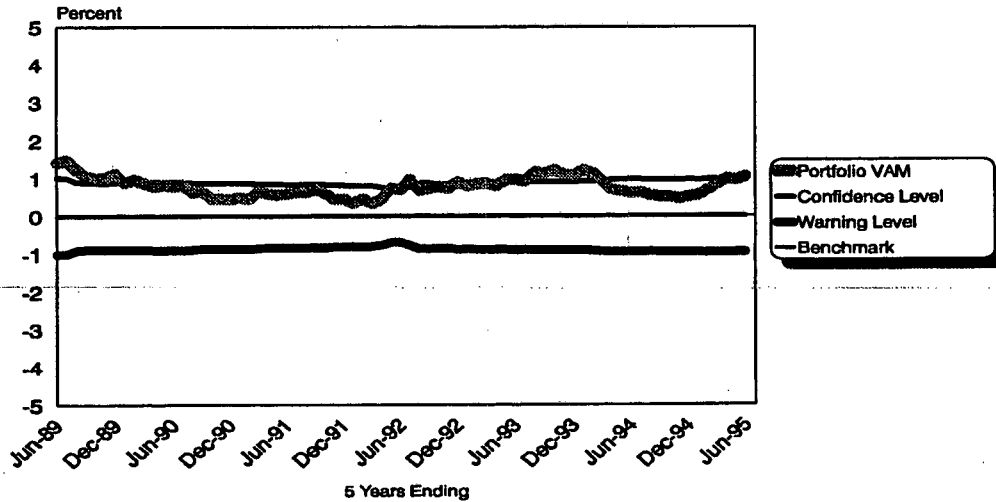
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	7.1%	6.1%
Last 1 year	14.7	12.5
Last 2 years	6.4	5.5
Last 3 years	9.2	7.6
Last 4 years	10.8	9.2
Last 5 years	10.8	9.6
Since Inception (7/84)	12.9	11.6

Recommendations

No action recommended.

**Western Asset Management
 Rolling Five Year Time Periods**



Note: Graph uses 80/20 confidence interval.

IDS ADVISORY GROUP
Period Ending 6/30/95

Portfolio Manager: Ed Labenski

Assets Under Management: \$267,451,430

Investment Philosophy

IDS manages a corporate and treasury portfolio for the SBI. The firm uses duration management combined with in-depth fundamental analysis of the corporate sector to add value to the portfolio. Active duration management begins with an economic overview and interest rate outlook. These factors help IDS determine the direction of both short and long-term interest rates which leads to the portfolio duration decisions. After IDS determines duration, they use their extensive corporate research capabilities to determine corporate sector allocation and to select individual issues.

**Qualitative Evaluation
(reported by exception)**

Exceptional strengths are:

- Highly successful and experienced professionals.
- Extensive corporate research capabilities.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	7.1%	6.4%
Last 1 year	13.5	12.7
Last 2 years	5.9	5.5
Last 3 years	N/A	N/A
Last 4 years	N/A	N/A
Last 5 years	N/A	N/A
Since Inception (7/93)	5.9	5.5

Recommendations

No action recommended.

VAM graph will be drawn for period ending 9/30/95.

TCW
Period Ending 6/30/95

Portfolio Manager: Philip Barach

Assets Under Management: \$258,615,157

Investment Philosophy

TCW manages a mortgage only portfolio for the SBI. TCW is a mortgage manager that emphasizes security selection. TCW invests a significant portion of the portfolio in collateralized mortgage obligations (CMO's). The staff analyzes various Wall Street models used to evaluate CMO's and determines the validity of their underlying assumptions. Historically, they have added significant value by understanding the strengths and weaknesses of these models. This helps them purchase undervalued securities and avoid those that are overpriced.

Qualitative Evaluation
(reported by exception)

Exceptional strengths are:

- Highly successful and experienced professionals.
- Extensive CMO investment experience.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	6.8%	5.2%
Last 1 year	13.7	12.2
Last 2 years	4.2	5.5
Last 3 years	N/A	N/A
Last 4 years	N/A	N/A
Last 5 years	N/A	N/A
Since Inception (7/93)	4.2	5.5

Recommendations

No action recommended.

VAM graph will be drawn for period ending 9/30/95.

FIDELITY MANAGEMENT TRUST
Period Ending 6/30/95

Portfolio Manager: Charles Morrison

Assets Under Management: \$1,105,842,675

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)**

Exceptional strengths are:

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

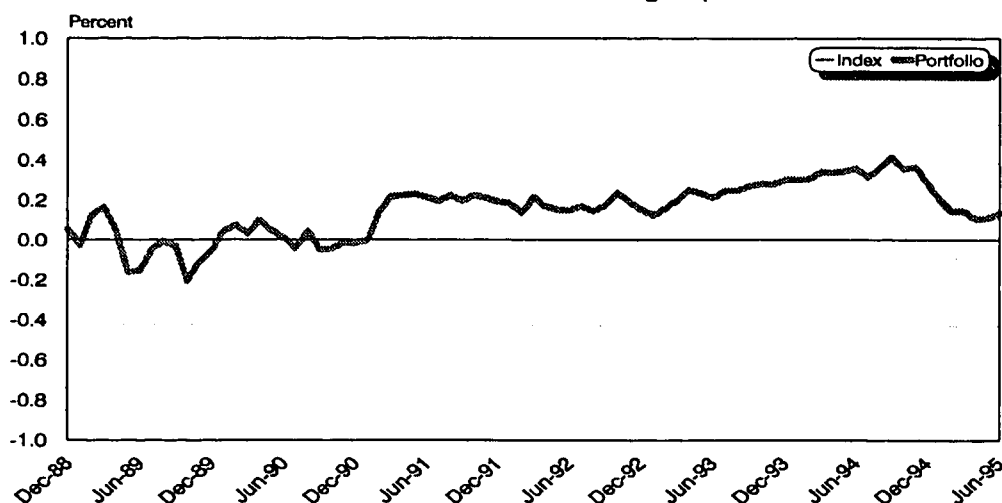
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	6.0%	6.1%
Last 1 year	11.2	12.5
Last 2 years	5.4	5.5
Last 3 years	7.7	7.6
Last 4 years	9.3	9.2
Last 5 years	9.7	9.5
Since Inception (7/88)	9.8	9.6

Recommendations

No action recommended.

**Fidelity Management Trust
 Cumulative Annualized Tracking Report**



GOLDMAN SACHS
Period Ending 6/30/95

Portfolio Manager: Sharmin Mossavar Rahmani

Assets Under Management: \$1,124,334,158

Investment Philosophy

Goldman is an enhanced index manager who focuses on security selection. When analyzing treasuries, the firm models Treasury coupons with an arbitrage based pricing model. This model determines the spread between actual and intrinsic market yields and determines whether the security is rich or cheap. Goldman takes a highly quantitative and analytical approach to value mortgage securities as well. Goldman uncovers undervalued securities using proprietary research and internally developed models. In the corporate sector, Goldman performs its own credit review of each issue. Goldman adds value to the corporate sector with extensive research, market knowledge, and trading skill.

Qualitative Evaluation
(reported by exception)

Exceptional strengths are:

- Highly successful and experienced professionals.
- Quantitative capabilities.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	5.9%	6.1%
Last 1 year	12.7	12.5
Last 2 years	5.9	5.5
Last 3 years	N/A	N/A
Last 4 years	N/A	N/A
Last 5 years	N/A	N/A
Since Inception	5.9	5.5

Recommendations

No action recommended.

Tracking graph will be drawn for the period ending 9/30/95.

LINCOLN CAPITAL MANAGEMENT
Period Ending 6/30/95

Portfolio Manager: Brian Johnson

Assets Under Management: \$1,111,425,740

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.

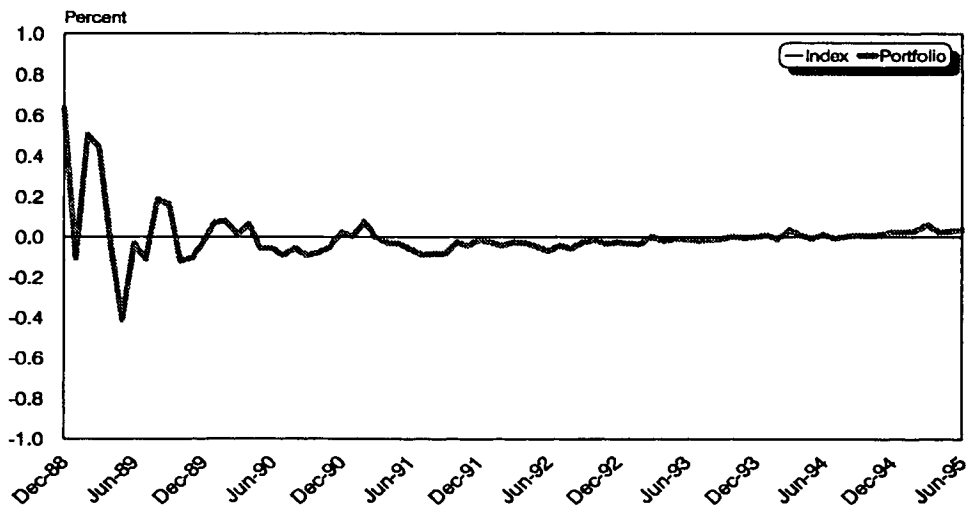
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	5.9%	6.1%
Last 1 year	12.7	12.5
Last 2 years	5.6	5.5
Last 3 years	7.8	7.6
Last 4 years	9.3	9.2
Last 5 years	9.6	9.5
Since Inception (7/88)	9.7	9.6

Recommendations

No action recommended.

LINCOLN CAPITAL MANAGEMENT
Cumulative Annualized Tracking Report



Tab F

COMMITTEE REPORT

DATE September 18, 1995

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

FROM: International Manager Committee

The International Manager Committee met on July 6 and August 25, 1995. During those two meetings, the Committee took action on the following items:

- review of manager performance for the period ending June 30, 1995
- review of the staff position paper on currency management

Board action is requested on both items.

ACTION ITEMS:

1. Review of manager performance.

For the period ending June 30, 1995, the international stock manager program outperformed the EAFE index by 2.0 percentage points for the quarter and by 1.2 percentage points for the latest year. Since inception of the program in October 1992 (2.75 years), the program has underperformed by 0.1 percentage point annualized.

Time Period	Actual	EAFE
Quarter	2.8%	0.8%
Year	2.9	1.7
Since Inception	13.2	13.3

Performance attribution for the quarter shows the following for the aggregate program:

	Actual	EAFE	Value Added
Local Currency	2.12%	0.48%	+1.64%
Country Selection			+1.35
Security Selection			+0.30
Currency Impact	0.69	0.25	+0.44
US Dollar Return	2.82%	0.73%	+2.09%

Source: State Street Analytics

Performance evaluation reports begin on page 5 and Manager Commentaries are in Tab I.

At its meeting in March 1995, the Board placed Baring Asset Management on probation due to their buyout by ING in the wake of Barings bankruptcy. Staff met with Barings in their London offices on July 27, 1995 to discuss the impact of the ownership change on the operation of the firm. While circumstances could change in the future, staff believes that the ownership change has had little impact on the investment philosophy or process of the firm. Staff turnover since the change has been only marginally higher than normal averages and the client base had remained stable. Staff recommended that Barings be removed from probation at this time but plans to continue to monitor the organization closely over the next year.

RECOMMENDATION:

The Committee recommends that the SBI remove Baring Asset Management from probation status.

2. Review of staff position paper on currency management

When the SBI adopted the position paper on international investing in 1992, staff advised the Board/IAC that the issue of currency management warranted further study. Over the last year, staff intensified its research on currency management and brought forward several issues for consideration by the SBI/IAC. A chronology of events may be helpful in reviewing the discussion to date:

- From September 1994 to January 1995, staff undertook academic research on the broad topics of currency and currency management. In addition, staff spent considerable time with a wide variety of currency practitioners in order to investigate alternative approaches that are currently used or are being actively considered by plan sponsors.
- In February 1995, staff presented a draft paper on currency management to the Asset Allocation Committee. The paper recommended that the SBI make two separate decisions with respect to currency: a strategic/constant hedging decision that would be reflected in the SBI's choice of a hedged or unhedged policy benchmark and tactical/active hedging decision that could result in the selection of a manager who would attempt to add value to that benchmark. Due to the complexity of the issues involved, the Committee deferred action until further information could be presented and digested.
- In June 1995, staff hosted a day long Currency Symposium for Board members/designees and IAC members which highlighted three alternative approaches to tactical currency management: fundamental valuation (represented

by JP Morgan), systematic trading (represented by State Street/Safeport) and risk modeling (represented by Pareto Partners).

- In July 1995, the International Manager Committee continued its review of the concepts presented in the staff position paper. At that time, the Committee concurred with the staff recommendation that the SBI reject strategic/constant hedging as long as the allocation to international stocks remains less than 20% of the total fund. This means that the SBI's policy benchmark would remain EAFE unhedged. While the Committee did not take action with respect to the staff recommendations concerning tactical/active hedging, they directed staff to investigate further management approaches that had the potential to produce an option-like pay-off profile. Several firms were asked to respond to a set of questions about their pattern of returns under alternative scenarios (dollar strength, dollar weakness, dollar flat/choppy) and to identify the costs associated with their management process. The firms included were Pareto Partners, State Street/Safeport and Record Treasury Management. In addition, the Committee sought information about the costs associated with placing a passive hedge on the portfolio for a period of time and utilizing exchange traded or over the counter options to provide currency protection.
- In early August 1995, the Asset Allocation Committee met to review the long term asset allocation targets for the Basic and Post Retirement Funds. As part of this discussion, staff presented further analysis regarding the impact of strategic/constant hedging and confirmed the recommendation by staff and the International Committee that the SBI should reject strategic/constant hedging for the present.
- In late August 1995, the International Manager Committee met to review the scenario and cost analyses referenced above and to once again discuss the merits of tactical/active currency management. At that time, the Committee voted to recommend the attached position paper on currency management which advocates using a systematic approach to currency management for the SBI's EAFE index fund. The Committee also agreed with a staff recommendation that Record Treasury Management be interviewed by a Search Committee. This step was taken to insure that if the SBI chose to proceed with tactical currency management, a specific manager could be brought forward to the Board in a timely manner.
- On September 12, 1995, a Manager Search Committee was convened to interview representatives of Record Treasury Management. That group recommended that if the SBI chooses to proceed with currency overlay, Record Treasury Management should be retained. A full report from the Search Committee is in Tab H.

It should be noted that members of the International Manager Committee differ widely in how tactical they believe the SBI should be concerning currency management.

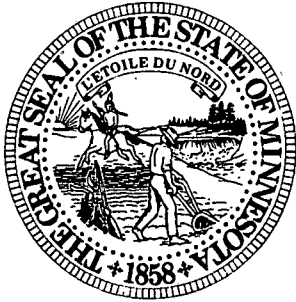
While the Committee voted to forward the attached paper to the SBI/IAC, individual members have varying opinions on what form of management is likely to yield the best results for the SBI.

As of this writing, staff are continuing to gather additional information that may address any outstanding issues or concerns. Staff hope to present this additional information at the IAC meeting on September 25.

RECOMMENDATION:

The Committee recommends that the SBI adopt the staff position paper on currency management which begins on page 15 of this Tab. The paper advocates using a systematic approach to currency management for the EAFE index fund and recommends that the program operate with the following constraints:

- ***Currencies Included.*** The program should be limited to currencies that comprise 5% or more of the exposure in the EAFE index. This includes: Japanese Yen, British Pound Sterling, German Mark, French Franc and Swiss Franc. Together, these five currencies comprise over 75% of the EAFE index. They are also the most liquid currencies in world markets.
- ***Benchmark.*** The benchmark for the program should be the unhedged return of the five currencies. The weights given each currency will be based on the proportionate weight in the underlying EAFE index and rebalanced on a quarterly basis.
- ***Operating Constraints.*** Hedging the above exposures back to the US dollar is the only type of hedge that should be authorized. Cross hedging and proxy hedging should not be allowed. Net long or short currency positions should be prohibited.
- ***Authorized Instruments.*** Currency positions should be implemented using currency forwards, options or futures. The manager should have the flexibility to use over-the-counter as well as listed/exchange traded instruments.



STATE BOARD OF INVESTMENT

International Manager Evaluation Reports

Second Quarter, 1995

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INTERNATIONAL STOCK MANAGERS
Period Ending 6/30/95

Current Managers	Quarter		1 Year		3 years		5 Years		Since Inception		Market Value (in millions)	Pool %
	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %	Actual %	Bmk %		
Baring (1)	0.2	0.8	0.2	1.7					11.4	12.8	\$184.33	8.9%
Brinson (1)	3.3	0.8	0.9	1.7					6.2	12.8	167.67	8.1%
Marathon (2)	1.2	0.8	-2.6	1.7					7.2	4.9	168.53	8.1%
Rowe Price (2)	5.0	0.8	5.6	1.7					6.9	4.9	167.26	8.1%
Scudder (2)	6.4	0.8	5.8	1.7					5.4	4.9	167.11	8.1%
Templeton (2)	8.4	0.8	12.2	1.7					9.2	4.9	177.17	8.5%
State Street (3)	1.6	0.8	2.4	1.7					13.6	13.3	1,040.27	50.2%
Current Aggregate	2.8	0.8	2.9	1.7					13.2	13.3	\$2,072.34	100.0%

(1) Active country/passive stock. Retained April 1, 1993

(2) Fully active. Retained November 1, 1993

(3) Index. Retained October 1, 1992

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BARING INTERNATIONAL INVESTMENT LTD.

Period Ending 6/30/95

Portfolio Manager: Philip Bullen

Assets Under Management: \$184,334,166

Investment Philosophy

Barings manages an active country/passive stock portfolio for the SBI. Barings' strategic policy team is responsible for the country and currency decisions. Country allocation decisions are made using a macroeconomic framework which seeks to identify growing economies as evidenced by positive changes in GDP and interest rates. The team uses multiple inputs including regional specialists, local market valuations and a computer model that functions as an audit of the qualitative valuation process. Currency specialists within Barings provide assessments on flow of funds, currency rates, monetary policy, inflation and interest rates. Barings uses country index funds managed by State Street Global Advisors to implement their country allocations. At Barings' direction, State Street also implements currency/hedging strategies for the portfolio.

**Qualitative Evaluation
(reported by exception)**

Exceptional strengths are:

- Highly successful and experienced professionals.
- Familiar with the needs of large institutional clients.

Current concerns are:

- New ownership by ING effective February 1995.

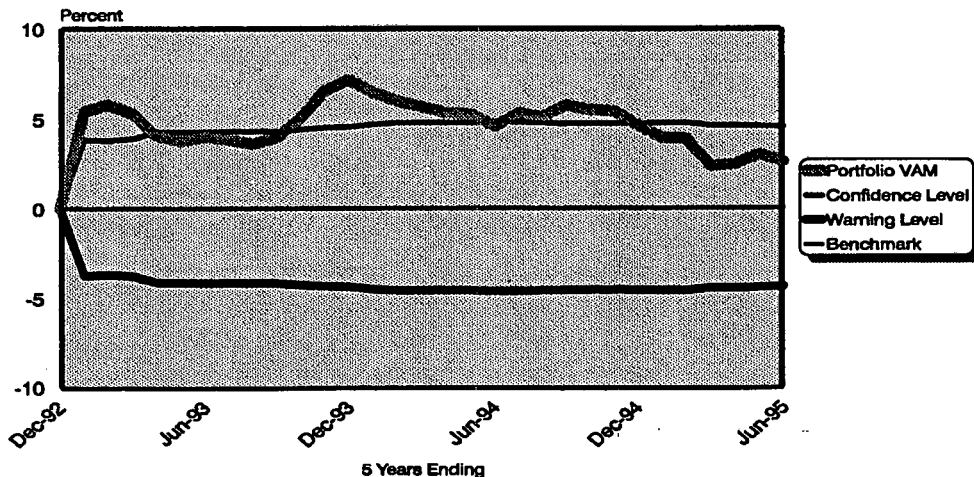
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	0.2%	0.8%
Last 1 year	0.2	1.7
Last 2 years	10.2	9.1
Last 3 years	N/A	N/A
Last 4 years	N/A	N/A
Last 5 years	N/A	N/A
Since Inception (4/93)	11.4%	12.8%

Recommendations

Barings was put on probation by the Board at the March 1995 meeting due to the bankruptcy of Barings PLC and the subsequent purchase by ING. To date, the ownership change has not appeared to have had an adverse impact on the investment philosophy or staffing at the firm. Staff recommends that Barings be removed from probation at the September 1995 meeting.

**BARING INT'L. INVESTMENT LTD.
Rolling Five Year Time Periods**



Note: Shaded area includes performance prior to managing SBI account. Graph uses 80/20 confidence interval.

BRINSON PARTNERS
Period Ending 6/30/95

Portfolio Manager: Richard Carr

Assets Under Management: \$167,671,107

Investment Philosophy

Brinson manages an active country/passive stock portfolio for the SBI. The firm 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 and foreign exchange movements. Quantitative tools are used to monitor and control portfolio risk, while qualitative judgments from the firm's professionals are used to determine country allocations. Brinson establishes an allocation range around the target index to define the limits of their exposure to individual countries and to assure diversification. Brinson constructs its country index funds using a proprietary optimization system.

Brinson utilizes currency equilibrium bands to determine which currencies are over or under valued. The firm will hedge to control the potential risk for real losses from currency depreciation.

**Qualitative Evaluation
 (reported by exception)**

Exceptional strengths are:

- Highly successful and experienced professionals.
- Familiar with the needs of large institutional clients.

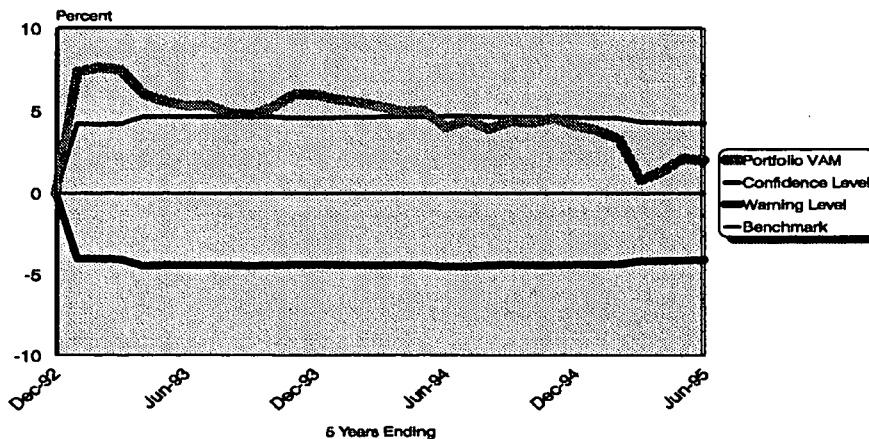
Quantitative Evaluation

	Actual	Benchmark
Last Quarter	3.3%	0.8%
Last 1 year	0.9	1.7
Last 2 years	5.6	9.1
Last 3 years	N/A	N/A
Last 4 years	N/A	N/A
Last 5 years	N/A	N/A
Since Inception (4/93)	6.2%	12.8%

Recommendations

No action recommended.

BRINSON PARTNERS, INC. (INT'L.)
Rolling Five Year Time Periods



Note: Shaded area includes performance prior to managing SBI account. Graph uses 80/20 confidence interval.

MARATHON ASSET MANAGEMENT
Period Ending 6/30/95

Portfolio Manager: William Arah

Assets Under Management: \$168,525,174

Investment Philosophy

Marathon uses a blend of flexible, qualitative disciplines to construct portfolios which exhibit a value bias. Style and emphasis will vary over time and by market, depending on Marathon's perception of lowest risk opportunity. Since they believe that competition determines profitability, Marathon is attracted to industries where the level of competition is declining and they will hold a sector position as long as the level of competition does not increase. At the stock level, Marathon tracks a company's competitive position versus the attractiveness of their products or services and attempts to determine whether the company is following an appropriate reinvestment strategy for their current competitive position.

**Qualitative Evaluation
(reported by exception)**

Exceptional strengths are:

—Attractive, unique investment approach.

Current concerns are:

—The firm has experienced a fair amount of client growth over the last year.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	1.2%	0.8%
Last 1 year	-2.6	1.7
Last 2 years	N/A	N/A
Last 3 years	N/A	N/A
Last 4 years	N/A	N/A
Last 5 years	N/A	N/A
Since Inception (11/93)	7.2%	4.9%

Recommendations

No action recommended.

VAM graph will be drawn for period ending 3/31/96.

ROWE PRICE-FLEMING INTERNATIONAL, INC.
Period Ending 6/30/95

Portfolio Manager: Martin Wade

Assets Under Management: \$167,264,812

Investment Philosophy

Rowe Price-Fleming (RPF) believes that world stock markets are segmented. The firm attempts to add value by identifying and exploiting the resulting pricing inefficiencies. In addition, they believe that growth is frequently under priced in the world markets. RPF establishes its economic outlook based largely on interest rate trends and earnings momentum. The portfolio management team then assesses the country, industry and currency profile for the portfolio. Within this framework, stock selection is the responsibility of regional portfolio managers. Stocks are selected using fundamental analysis that emphasizes companies with above-market earnings growth at reasonable valuations. Information derived from the stock selection process is a key factor in country allocation as well.

**Qualitative Evaluation
(reported by exception)**

Exceptional strengths are:

- Extensive securities research process.
- Successful investment approach which has been consistently applied over a number of market cycles.
- Familiarity with the needs of large institutional clients.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	5.0%	0.8%
Last 1 year	5.6	1.7
Last 2 years	N/A	N/A
Last 3 years	N/A	N/A
Last 4 years	N/A	N/A
Last 5 years	N/A	N/A
Since Inception (11/93)	6.9%	4.9%

Recommendations

No action recommended.

VAM graph will be created for period ending 3/31/96.

SCUDDER, STEVEN & CLARK
Period Ending 6/30/95

Portfolio Manager: Nicholas Bratt

Assets Under Management: \$167,113,792

Investment Philosophy

Scudder believes that successful international investing requires knowledge of each country's economy, political environment and financial market obtained through continuous and thorough research of individual markets and securities. The investment process focuses on three areas: country analysis, global themes and unique situations. Ideas from all three areas are integrated into Scudder's research universe. Using their own internal research, the firm seeks companies with potential for earnings and dividend growth, strong or improving balance sheets, superior management, conservative accounting practices and dominant position in growing industries.

**Qualitative Evaluation
(reported by exception)**

Exceptional strengths are:

- Strong leadership.
- Extensive securities research capabilities.
- Successful investment approach which has been consistently applied over a number of market cycles.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	6.7%	0.8%
Last 1 year	6.1	1.7
Last 2 years	N/A	N/A
Last 3 years	N/A	N/A
Last 4 years	N/A	N/A
Last 5 years	N/A	N/A
Since Inception (11/93)	5.5%	4.9%

Recommendations

No action recommended.

VAM graph will be drawn for period ending 3/31/96.

TEMPLETON INVESTMENT COUNSEL, INC.
Period Ending 6/30/95

Portfolio Manager: Jim Chaney

Assets Under Management: \$177,171,202

Investment Philosophy

Templeton's goal is to identify those companies selling at the greatest discount to future intrinsic value. The firm takes a long-term approach to investing and believes that, over time, markets are efficient and patience will reward those who have identified undervalued stocks. Stock selection dominates Templeton's investment approach; country, sector and industry weightings are a residual of the stock selection process. Stock ideas are obtained from a worldwide network of research sources and screens of their own global database. From this preliminary list, analysts conduct fundamental analysis to distinguish a "cheap" stock from a "bargain." Templeton seeks stocks that are cheap relative to their own price history, their global industry and their domestic market. Each stock on the resulting "bargain list" has established buy and sell price targets and is purchased and sold accordingly.

**Qualitative Evaluation
(reported by exception)**

Exceptional strengths are:

- Extensive securities research process.
- Successful investment approach which has been consistently applied over a number of market cycles.

Quantitative Evaluation

	Actual	Benchmark
Last Quarter	8.4%	0.8%
Last 1 year	12.2	1.7
Last 2 years	N/A	N/A
Last 3 years	N/A	N/A
Last 4 years	N/A	N/A
Last 5 years	N/A	N/A
Since Inception (11/93)	9.2%	4.9%

Recommendations

No action recommended.

VAM graph will be drawn for period ending 3/31/96.

**Currency Management
in the SBI'S
International Stock Program**

**Minnesota State Board of Investment
Staff Position Paper
August 1995**

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Executive Summary

In September 1992, the State Board of Investment (SBI) adopted a position paper on international stock investing. That document outlined the rationale for international investing, reviewed a variety of investment management options and recommended an implementation plan for the initial stages of the Board's international stock program. This paper discusses one aspect of international investing, *currency management*, in greater detail.

For the purposes of this discussion, "currency management" means managing the foreign currency *exposure* in a portfolio of international stocks that a plan sponsor already holds. It does *not* mean allocating an additional percentage of the fund to a new asset class called "currencies".

Currently, the SBI's policy with respect to currency management can be summarized as "half managed" and "half unmanaged". The active international stock managers have the authority to hedge opportunistically/tactically when they believe it will add value or protect from loss relative to their benchmark, which is the Morgan Stanley Capital International index of Europe, Australia and the Far East (EAFE). The passive component which is indexed to EAFE, on the other hand, is "unhedged" at all times. That means no attempt is made to alter any of the currency exposure of the underlying stock portfolio and the portfolio is fully exposed to the currency impact associated with the rise and fall of the US dollar.

Part 1: Background on Currency Issues

- There is no consensus among the experts on how a pension fund should approach currency management. The policies that plan sponsors choose will be highly dependent upon their individual views regarding currency management and particular constraints/needs of their respective retirement funds.
- Generally, securities are denominated in the currency of the country where they are issued. As a result, US investors incur foreign currency exposure at the same time they add international securities to their portfolios. The exchange rate in effect at the time of purchase affects the investor's initial cost in dollar terms. During the holding period, the exchange rate will move up or down from the rate in effect at the time of purchase. When those changes are translated back into dollars, the portfolio will register gains or losses solely due to the fluctuation in exchange rates during the holding period.
- The portion of portfolio returns due to currency translation back to the US dollar is called the "currency impact". (Return in US dollars = Local market return + currency impact). Currency impact can be positive or negative and can vary widely from year to year:

When the dollar *strengthens/appreciates*, the currency impact for US investors is negative and their portfolios will suffer currency *losses*.

When the dollar *weakens/depreciates*, the currency impact for US investors is positive, and their portfolios will generate currency *gains*.

- The currency exposure of an international stock portfolio can be altered by hedging. "Hedging" means selling an amount of foreign currency equal to the value of the underlying foreign stock. If a portfolio of international stocks were fully hedged, all the exposure to foreign currency would be converted to US dollars and exchange rate fluctuations would have no impact on returns measured in dollar terms.
- The SBI needs to make two distinct policy decisions with respect to currency management:

Strategic/Constant Hedging. Should the SBI hedge currency exposure at all times? This is a strategic decision that affects the risk profile of the total fund. Therefore, this decision should be made within the structure of the SBI's long term asset allocation policy.

Tactical/Active Hedging. Should the SBI attempt to move in and out of foreign currency exposure at particular points in time? This is a tactical decision that is similar to the decision to use or not to use active management. Therefore, the decision should be made based on a belief that tactical hedging provides an opportunity to add value to the policy benchmark.

Part 2: Decision on Strategic/Constant Hedging

- Strategic/constant currency hedging can insulate international portfolios from the effect of currency fluctuations and thereby reduce the risk, or volatility of returns, associated with currency exposure. While expert opinions vary widely on this issue, research suggests that if a plan sponsor's international stock allocation is less than 20% of the total fund, constant hedging does not appear to generate significant risk reduction benefits for the total fund. Consequently, **staff recommends that the SBI reject constant hedging as long as the SBI's allocation to international stocks is less than 20% of the Combined Funds.** (Currently, the allocation to international stocks is 10% and the Asset Allocation Committee has recommended that the target be increased to 15%.) **If the SBI chooses to increase the allocation beyond 20% at some point in the future, the decision to employ a constant hedge should be re-examined.**
- The SBI's policy benchmark/asset class target should reflect the SBI's strategic policy decision with respect to currency. As a result, **staff recommends that the asset class target for the international stock program should remain the EAFE index, unhedged.**

Part 3: Decision on Tactical/Active Hedging

- While staff does not recommend that the SBI employ a constant hedge at this time, tactical currency management remains an option. The goal of tactical hedging is to add value to a benchmark by increasing and decreasing exposure to particular currencies as they strengthen or weaken relative to other currencies. Tactical hedging adds value by hedging during periods of dollar strength/appreciation and not hedging during periods of dollar weakness/depreciation.
- **Given the large impact that currency exposure can have on returns, staff recommends that the SBI consider tactical currency management alternatives for the entire international stock program. The goal of tactical currency management should be to add value to the currency component of the policy benchmark (i.e., the currency impact in the EAFE index measured in US dollar terms).**

Active Managers. Currency management is one component of active international stock management. Generally, the SBI's active managers take a fundamental approach to currency management and make decisions with a two to three year time horizon in mind. Their currency views may be imbedded in their country and stock selection decisions or may result in an explicit decision to increase/decrease exposure to a particular currency through hedging activity. **Since currency management is already being addressed by the existing active managers, staff recommends that the SBI take no further action regarding currency management in this portion of the international program, at this time.** The SBI should, however, carefully evaluate the effectiveness of the managers' decisions with respect to currency in the future and determine if this type of currency management adds value to the program.

Passive Manager/Index Fund. As noted earlier, the currency exposure of the EAFE index fund is totally unmanaged. **Staff recommends that the SBI implement a tactical currency management program for the EAFE index fund only if it believes it can identify managers that will add at least 1 percentage point annualized, net of all costs, over time to the portfolio. If this goal is judged to be unrealistic or unattainable, the SBI should not proceed with a tactical currency program.**

Part 4: Implementation Alternatives

- If the SBI chooses to implement a tactical hedging program for the EAFE index fund, two general approaches are available:

Currency overlay, where a manager uses a hedging program to alter the currency exposure of a portfolio without affecting the underlying securities. In currency

overlay, the manager is responsible for deciding when to hedge/not to hedge and executes the hedges on behalf of the client.

Currency advisory relationships, where one entity (usually an external firm) determines when to hedge/not to hedge, but another entity (usually the plan sponsor or custodian bank) is responsible for executing the recommended hedges.

- Currency overlay styles generally fall into two groups: a *forecasting approach* which attempts to anticipate the direction and level of exchange rates or a *systematic approach* which moves in and out of currencies in reaction to observable short term currency trends or fluctuations. Several of the firms offering currency overlay management also offer their services on an advisory basis as well. This means that essentially the same style options are available through currency overlay and currency advisory relationships.
- In general, currency managers do not have long track records (often no more than five years). As a result, it is difficult to say whether plan sponsors should have a high degree of confidence that tactical currency management can add value over time. The actual returns generated by some currency managers to date, however, are encouraging. In general, actual returns show that some currency overlay managers have been able to generate 2-3 percentage points value added annualized to the benchmarks selected by their clients. (It should be noted that unhedged benchmarks have not been widely used to date. Fully hedged or partially hedged benchmarks have been more common.)
- **If the SBI chooses to proceed with tactical currency management for the EAFE index fund, staff recommends that the SBI select a manager/advisor who utilizes a systematic approach to currency management.** There are two reasons for this recommendation. First, results from a systematic approach are more predictable and can be constrained with respect to the level of risk they entail. Second, a systematic approach would balance the more fundamental valuation/forecasting approaches used by the SBI's active managers and provide some measure of diversification with respect to currency management within the SBI's international program.
- While systematic currency management is expected to add value to the international program over time, it should be recognized that there is an element of "insurance" (i.e., protection against the negative effects of a rising dollar) associated with such a program. There will be times when the SBI will pay an "insurance premium" in terms of management fees and transactions costs without observable return to the portfolio because the negative event does not occur within the measurement period. This will impact the pattern of performance relative to an unhedged benchmark.

Part 5: Recommended Structure

Staff believes that there is opportunity to add value through tactical currency management. Given the short history of most currency management approaches, it seems prudent to implement a program that has a simplified and relatively straightforward structure. If the initial program is successful, coverage could be expanded over time as experience with the program grows and actual results can be more thoroughly examined.

- **Currencies Included.** The program should be limited to currencies that comprise 5% or more of the exposure in the EAFE index. This includes: Japanese Yen, British Pound Sterling, German Mark, French Franc and Swiss Franc. Together, these five currencies comprise over 75% of the EAFE index. They are also the most liquid currencies in world markets.
- **Benchmark.** The benchmark for the program should be the unhedged return of the five currencies. The weights given each currency will be based on the proportionate weight in the underlying EAFE index and rebalanced on a quarterly basis.
- **Operating Constraints.** Hedging the above exposures back to the US dollar is the only type of hedge that should be authorized. Cross hedging and proxy hedging should not be allowed. Net long or short currency positions should be prohibited.
- **Authorized Instruments.** Currency positions should be implemented using currency forwards, options or futures. The manager should have the flexibility to use over-the-counter as well as listed/exchange traded instruments.

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Introduction

In September 1992, the State Board of Investment (SBI) adopted a position paper on international stock investing. That paper outlined the rationale for international investing, reviewed a variety of investment management options and recommended an implementation plan for the initial stages of the Board's international stock program. This paper discusses one aspect of international investing, *currency management*, in greater detail.

It should be acknowledged at the outset of this discussion that there few clear cut answers to any of the issues that surround currency management. Neither the theoretical research among academics nor actual experience of investment professionals has been able to resolve such fundamental questions as:

- What drives currency movements?
- Are currencies a distinct asset class?
- Do currencies provide an opportunity to add value over the long term?

Given the disagreements about these topics, there is a notable lack of consensus among the experts on how a pension fund should approach currency management. The policies that plan sponsors choose will be highly dependent upon their individual views regarding currency management and the particular constraints/needs of their respective retirement funds.

The purpose of this paper is to provide background on currency issues and set forth a logical rationale for how the SBI should address currency management within the retirement portfolios under its control. As with all policies of the SBI, the recommendations presented here should be re-examined and re-formulated as circumstances change and experience grows.

Readers should note that there is a glossary in *Appendix A* which defines some of the terms used in the body of the paper.

Structure of the Current International Program

As a prelude to the discussion of currency issues, it may be helpful to review the status of the SBI's current international program:

- The SBI began its international stock program in October 1992. At the present time, 10% of both the Basic Retirement Funds and the Post Retirement Fund (also referred to as the Combined Funds) are allocated to international equities. As of June 1995, the market value of this allocation was \$2.1 billion.
- The asset class target selected for the program is the Morgan Stanley Capital International Index of Europe, Australia and the Far East (EAFE). This index is market capitalization weighted and measured in US dollars, unhedged. "Unhedged" means that the benchmark index is fully exposed to changes in the value of the US dollar and will move up and down directly as the US dollar falls and rises in the currency markets.
- As a matter of policy, the Board has determined that at least one-half of the international allocation will be actively managed and the remainder will be indexed. As of June 1995, 50.2% of the international allocation is indexed to EAFE and 49.8% is managed by a group of 6 active managers. Currently, all the managers (both active and passive) use the EAFE index, unhedged, as their benchmark.
- The SBI's passive manager is State Street Global Advisers. They manage the index fund on a "full replication" basis (i.e., they include every stock in the EAFE index) and leave the portfolio "unhedged" (i.e., they do not attempt to alter any of the currency exposure of the underlying stocks).
- The active managers use varying approaches and were selected for the blend of their investment styles. Two managers (Baring International and Brinson Partners) manage active country/passive stock portfolios and focus on "top down" issues of country allocation and currency management. Two managers (Marathon Asset Management and Templeton Investment Counsel) concentrate on stock selection and are therefore considered primarily "bottom up" managers. The remaining two firms (Rowe Price-Fleming and Scudder, Stevens & Clark) use a combination of "top down/bottom up" in their approaches. Regardless of their style, each of the active managers has discretion to change the currency exposure of their respective portfolios, or "hedge opportunistically", when they believe that hedging will add value or protect against loss. This is a form of tactical currency management that is discussed in greater depth in Part 3 of the paper.

Results to Date

The SBI's decision to diversify internationally has been beneficial for the total portfolio to date. Comparative data since the inception of the international program in October 1992 are shown below:

SBI Pools	1.0 Year 10/92 - 9/93	1.0 Year 10/93 - 9/94	0.75 Year 10/94 - 6/95	Annualized 2.75 Years 10/92 - 6/95
Int'l. Stocks	24.3%	11.9%	1.0%	13.2%
Dom. Stocks	18.0	1.7	16.7	13.0
Bonds	12.0	-3.5	11.6	7.1

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Part 1: Background on Currency Issues

What is currency?

Simply put, currency is money. Money, in turn, can be defined as whatever people will accept as payment for goods and services or for settling debts. In most of the world today, money is comprised of notes issued by a central bank or governmental authority within a sovereign nation. The note itself has value only to the degree that its users have confidence in the issuer. Confidence in the issuer is affected by a variety of economic and political factors that are subject to change. As a result, the relative value of individual currencies will also fluctuate over time.

How are exchange rates established?

The monetary units created by sovereign states vary (US dollar, Japanese yen, British pound sterling, German mark/, etc.). Exchange rates link one currency to another and establish the price of one currency in terms of another.

For much of the last century, exchange rates have been pegged to the value of another asset:

- Prior to World War I (c. 1880-1914), individual currencies were backed by the gold reserves of their respective states. The resulting "fixed gold standard" provided that each currency was stated in terms of the price of a specified weight of gold. Exchange rates were fixed by the ratio of the prices of different currencies for the same unit of gold. Because currencies were backed by gold reserves, each currency could be redeemed for gold at the stated rate upon demand.
- After World War II (c. 1944-1973), the major powers adopted what became known as the "fixed dollar standard" or "fiat money standard". Under the Bretton Woods Agreement of 1944, the price of US dollar was fixed at \$35 per ounce of gold and the prices of all other currencies were stated in terms of US dollars. The US dollar became the international reserve currency and it was the only currency that could be redeemed for gold upon demand.

Under a fixed rate regime, an investor's exchange rate risk was confined to official revaluation (raising the value) or devaluation (lowering the value) of a currency. Since revaluation or devaluation was expected to occur very rarely, fixed rate regimes were thought to foster international economic stability which, in turn, was considered to be a prerequisite for the expansion of world trade and world-wide economic growth.

Though they may have been beneficial to international trade, over time, fixed rate regimes became incompatible with domestic economic goals of key nations in the fixed rate systems. In 1914, Britain was the first to opt out of gold standard when the costs of the war effort forced them to borrow heavily. In 1971, the US unilaterally suspended the convertibility of the US dollar into gold when its expansionist monetary policies could no longer support the fixed rate regime. While efforts were made to revive fixed rates, they were unsuccessful and exchange rates were fully floating against the US dollar by 1973.

For the last two decades (c. 1973 to present), the world's major currencies have operated in a floating rate environment. Exchange rates move up and down, or "float", according to market forces. Over the long term, the level and direction of exchange rates appear to be influenced by a number of factors:

- differing rates economic growth
- differing rates of inflation
- interest rate differentials between countries
- comparative levels of trade deficit/surplus
- capital flows between countries
- political events

Since the markets are sensitive to the forces of supply and demand, the policies of central banks (e.g. the Federal Reserve in the US, Bundesbank in Germany, the Bank of England in the UK) which control the money supply within a country are very important to the currency markets. Central banks also play a large role in determining the level of interest rates within a country, another important variable in the level of exchange rates.

Exactly how these factors interact and what best explains currency movements in today's markets are matters of continuing and substantial debate. Some of the more prominent

theories are described in section entitled "What theories are used to explain exchange rate movements?"

Figure 1 shows the changing values of the US dollar against the yen, deutschmark and pound sterling from 1960 to 1991 and covers the last portion of the fixed dollar standard and most of the floating rate era. Over the entire period, the US dollar appreciated/gained value at a rate of 1.27% annualized against the pound sterling. It depreciated/lost value against the deutschmark and yen at annualized rates of 3.27% and 3.11% respectively (1).

While the graph clearly displays these long term trends, it also shows that there have been pronounced, multi-year periods when these longer term relationships have not held. For example, from 1979 to 1984, the dollar appreciated relative to both the yen and deutschmark and since 1984 the dollar has generally depreciated relative to all three currencies. Even within these shorter periods, however, exchange rates have fluctuated both up and down.

More information on the history of exchange rates is included in *Appendix B*.

How are the currency markets structured?

The currency markets are the largest financial marketplace in the world. With *daily* transactions of more than \$800 billion (2), they dwarf the activity of other markets and are the most liquid in the global marketplace.

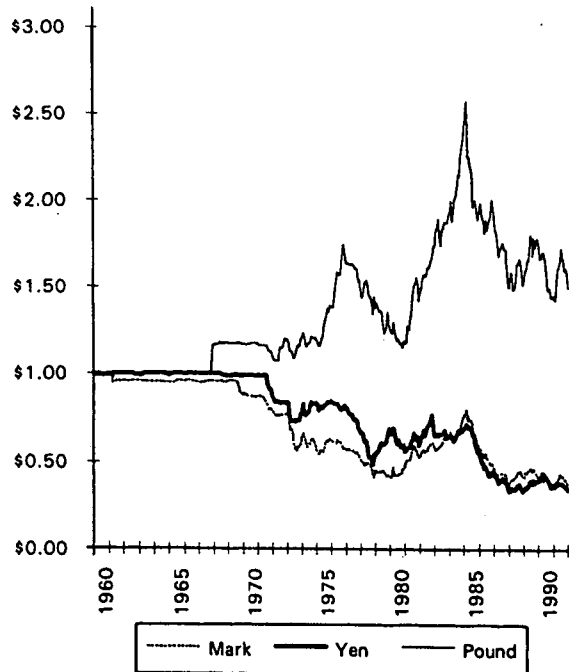
Variety of Participants

While foreign exchange markets originated to facilitate the conduct of trade between nations, the volume of imports and exports across all countries accounts for less than 2% of activity today. (See *Figure 2*.) In general, transactions in the currency markets fall into the following groups:

- **Cross Border Business Transactions.** These participants have bought or sold goods and need to translate the value of the transaction to another currency. All export and import activity would fall in the category. Buying or selling a financial asset between two countries, like stock or bond purchases, also requires foreign exchange transactions.

Figure 1

Value of US Dollar in Terms of Foreign Currency
1960-1991

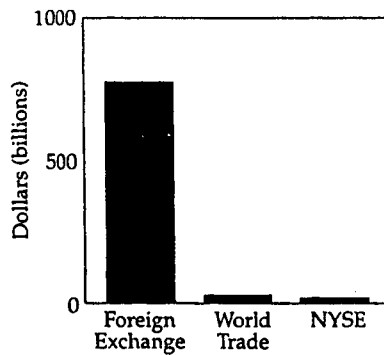


Value of U.S. dollar in terms of foreign currencies, 1960-1991 (1959 = 1). (Source: pre-1988 data from International Financial Statistics, various issues, published by the International Monetary Fund; data since 1988 are from The Wall Street Journal.)

Reproduced from: *Global Investing: The Professional's Guide to the World Capital Markets*, Ibbotson and Brinson, 1993, p.26.

Figure 2

Daily Trading Volume, 1992
Foreign Exchange, World Trade and NYSE



Reproduced from: *Investing Worldwide V*, Association for Investment Management and Research, September 1994, p. 28.

- **Hedgers.** These participants want to eliminate the currency risk inherent in a portion of their business. For example, a German manufacturer selling in the US receives US dollars and uses the currency markets to lock in a mark/dollar relationship. Such participants are considered to be largely indifferent to the direction of currency movements and simply want to eliminate exchange rate risk from their business transactions.
- **Tactical Players.** These participants have an opinion on the direction of exchange rates and come to the currency markets to make that bet. For example, a stock manager may hold Japanese stock for a US client but believes that the value of the yen is likely to decline relative to the US dollar. The manager would use the currency markets to reduce or remove the yen exposure in the portfolio by selling yen and buying US dollars. Here the motivation is to add value to the underlying stock portfolio in US dollar terms.
- **Central Banks.** The interest of central banks centers on maintaining stable exchange rates which, in turn, facilitate global trade. Typically, they will intervene in the currency markets when a shock to the system is causing unacceptable levels of exchange rate volatility. By buying or selling currency at various points in time, they can help dampen the effects of these market disturbances. Their motivation is to maintain relative price stability, not to generate profits.
- **Foreign Exchange Market Makers.** These participants stand ready to buy and sell currencies at any time. They try to avoid overexposure to any one currency and earn a profit by capturing the difference between price to a buyer and seller associated with a currency transaction (bid/offer spread).

What is most notable is that, unlike stock or bonds markets, most transactions in the currency market are not profit motivated. This suggests that the market is inefficient from an investor's point of view. Further, since most currency transactions supply capital for only brief periods of time (a few hours to a few weeks), an investor who supplies capital for considerably longer time periods has had the opportunity to benefit from the trending nature of exchange rate movements.

Types of Transactions

The currency market is known as an "interbank" market because transactions are made through a collection of banks and other financial institutions. Traders canvass these institutions looking for the best prices on behalf of their clients. With computer linkages around the globe that allow constant monitoring and trading, the currency market is very price competitive. Bid/offer spreads are considerably lower than the spreads associated with stock or bond transactions.

Most currency transactions take place using *spot rates* (the price for immediate delivery) or *forward rates* (the price for delivery at a specified date in the future). These physical contracts account for the preponderance of the turnover in the currency markets. *Options* (the right but not the obligation to buy or sell at a specified price and time in the future) comprise a much smaller portion of the daily volume but are still used quite widely. Other instruments (futures, swaps and synthetics) are available but the large size of most currency transactions dictate the use of spot rate contracts, forward rate contracts and options. *Figure 3* shows the daily liquidity of the most common currency hedging instruments. Trading characteristics of hedging instruments are shown in *Figure 4*.

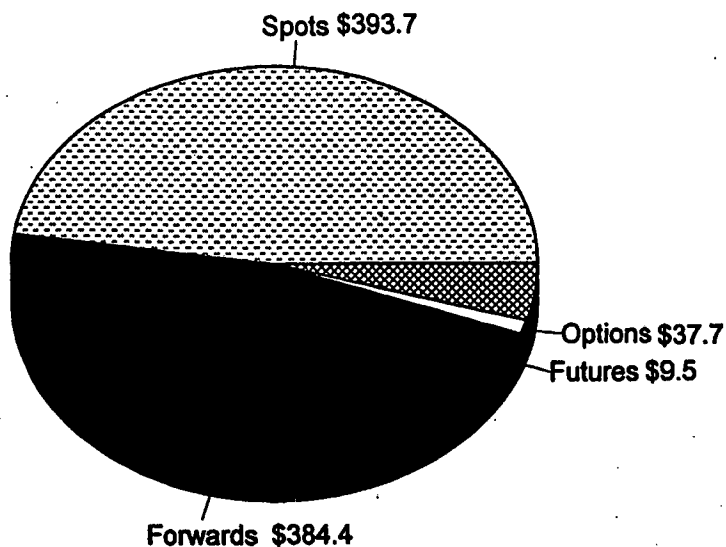
What theories explain exchange rate movements?

Several theories have been developed to explain or predict the movement of exchange rates. The two most commonly referred to are purchasing power parity and interest rate parity (3):

- **Purchasing power parity (PPP).** This theory focuses on differing inflation rates between countries and is based on the economic principle or "law of one price", i.e., that identical goods should be priced identically. It proposes that, over time, exchange rates will adjust so that the cost of similar goods and services will be the same whether paid for in local or foreign currency. As a result, PPP holds that exchange rates will move in a way that will offset differences in inflation rates between countries. The currency of a country with high inflation relative to another country should depreciate and the currency of a country with low inflation should appreciate. (4)
- **Interest rate parity.** This theory focuses on interest rate differentials and says that, over time, exchange rates will adjust to offset the difference in the level of interest

Figure 3

**Daily Liquidity of
Currency Hedging Instruments
(billions of dollars)**



Data Source: *Central Bank Survey of Foreign Exchange Rate Market Activity*, Bank for International Settlements, March 1993, p.17.

Figure 4

**Characteristics of
Currency Hedging Instruments**

<i>Type</i>	<i>Bid/Offer Spread (in Basis Points)</i>	<i>24-Hour Trading Availability</i>
Spot and Forwards	3+	Yes
Options	10+	Yes
Futures	5+	No
Currency Swaps	10+	Yes
Synthetics	50++	No

Data Source: *Investing Worldwide V*, Association for Investment Management and Research, September 1993, p. 29.

rates between countries. The currency of a country with high interest rates relative to other countries should depreciate and the currency of a country with low interest rates should appreciate. (5)

While there is some empirical evidence that PPP and interest rate parity may hold over the very long term (perhaps 10 years or more), neither is particularly helpful in explaining exchange rate movements on a monthly or even yearly basis. *Figure 5* shows exchange rates and purchasing power parity of the dollar versus the yen, mark and pound sterling. While yen/dollar PPP and yen/dollar exchange rate both trend downward over the entire twenty year period, the relationship diverged dramatically for extended periods on several occasions. The graphs for mark/dollar and pound sterling/dollar show equally pronounced periods when PPP and exchange rates showed little correlation.

While it is difficult to construct a model that will satisfactorily explain shorter term movements in exchange rates, there is a growing body of literature that confirms that identifiable, and therefore exploitable, trends have persisted. (In statistical terms, these trends are said to exhibit autocorrelation and/or serial dependency). Based on daily, weekly and monthly data from seven major currencies since 1978, Ramaswami (1993) provided statistical evidence of non random patterns of movement lasting six months to three years or more. His work supports the earlier conclusions of Boothe and Grossman (1987), Diebold and Nerlove (1989), Liu and He (1991) and Kritzman (1993).

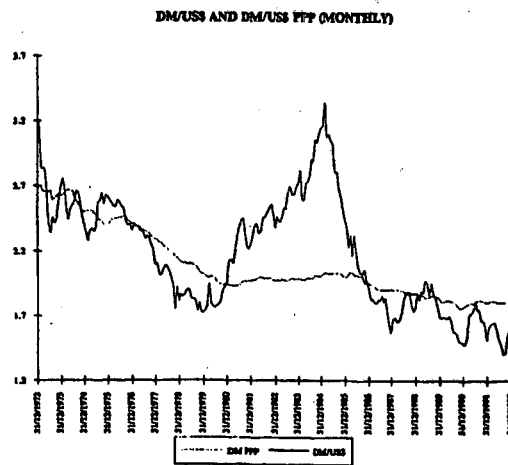
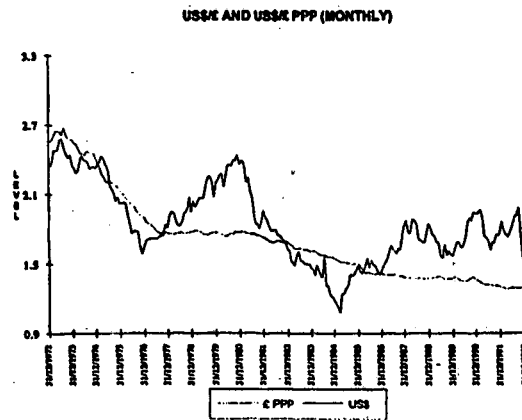
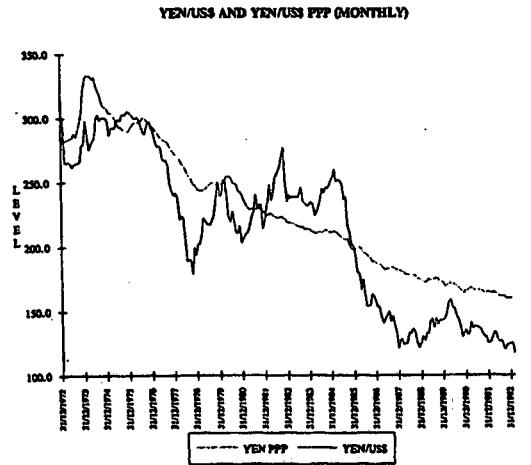
What accounts for these shorter term trends is not clear. The activity of central banks often is cited as one cause (6). Because stable exchange rates are more conducive to free trade, central banks typically intervene in the currency markets when exchange rates have been subject to unusual shocks (e.g. report of high and unexpected inflation). By buying or selling currency at such times, central banks help to dampen exchange rate volatility in the market place and thereby elongate currency trends. Market sentiment and momentum, whether substantiated by observable economic data or not, appear to play significant roles in short term trends as well.

What impact does currency have in an international stock portfolio?

Generally, securities are denominated in the currency of the country where they are issued. As a result, investors incur foreign currency exposure at the same time they add

Figure 5

Comparison of Exchange Rates and Purchasing Power Parity
US Dollar vs. Yen, Pound Sterling, Mark
1972-1992



Reproduced from: *Understanding How Foreign Currency Affects International Equity Portfolios*, Baring International Investment Ltd., September 1993, Appendices.

international securities to their portfolios. The exchange rate in effect at the time of purchase affects the investor's initial cost in dollar terms. During the holding period, the exchange rate will move up or down from the rate in effect at the time of purchase. When those changes are translated back into dollars, the portfolio will register gains or losses solely due to the fluctuation in exchange rates.:

- When the dollar *strengthens/appreciates* relative to other currencies, US investors will suffer currency *losses* on their international portfolios.
- When the dollar *weakens/depreciates*, US investors see currency *gains*.

The difference between return measured in US dollars and return measured in local currency (i.e. the currency of the country where the stock was purchased) is the "currency impact". As shown in *Figure 6*, currency impact can help or hurt performance quite dramatically over a year-to-year basis.

Are stock market returns and currency movements linked?

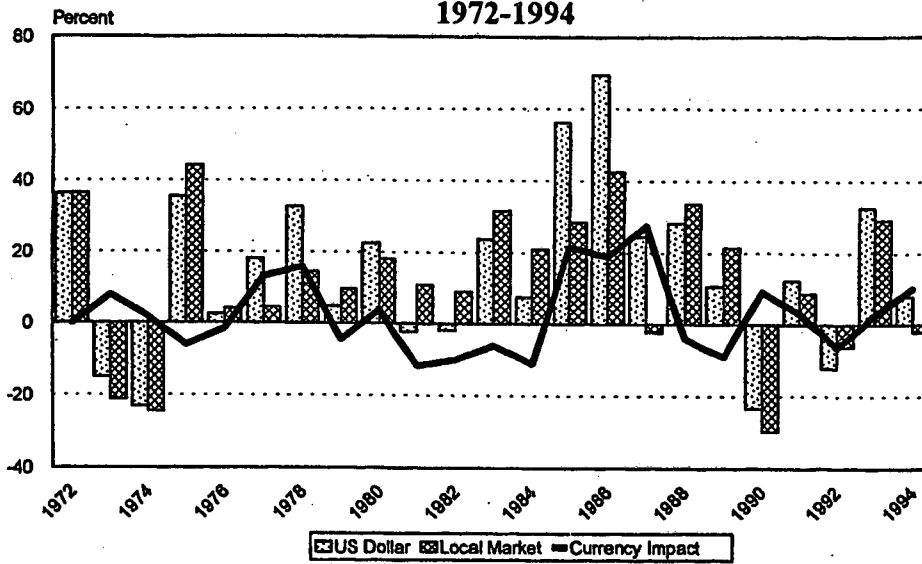
As the data in the previous section may suggest, currency impact and stock returns are not strongly linked. This is reflected in the difference between the economic forces that appear to affect stock values versus those that impact exchange rates:

- In broad terms, *stock values* often appear to be driven by domestic economic growth, corporate profits, payout ratios and comparative yields between stocks and long term bonds.
- As noted in prior sections of this paper, *exchange rates* seem to be influenced by larger international economic variables such as purchasing power parity, trade imbalances and central bank policies.

This narrative description is supported by statistical analysis. The data below displays the correlation of both monthly and annual returns from stock markets measured in local currency and the currency impact on a US investor are shown below. All of the correlations are close to zero which confirms that there is little or no correlation between the two sources of return:

Figure 6

EAFE Index Returns
1972-1994



Year	US Dollar	Local Market	Currency Impact
1972	36.35%	36.41%	-0.05%
1973	-14.92	-21.13	7.87
1974	-23.16	-24.45	1.70
1975	35.39	44.07	-6.03
1976	2.54	4.10	-1.50
1977	18.06	4.34	13.15
1978	32.62	14.41	15.91
1979	4.75	9.57	-4.40
1980	22.58	18.04	3.84
1981	-2.28	10.79	-11.79
1982	-1.86	9.00	-9.96
1983	23.69	31.61	-6.02
1984	7.38	20.90	-11.18
1985	56.16	28.52	21.51
1986	69.44	42.46	18.94
1987	24.63	-2.27	27.53
1988	28.27	33.70	-4.04
1989	10.53	21.45	-8.99
1990	-23.45	-29.83	9.10
1991	12.13	8.70	3.15
1992	-12.17	-6.17	-6.39
1993	32.56	29.18	2.61
1994	7.78	-2.04	10.02
1995 Q1	1.86	-7.79	10.48
1995 Q2	0.73	0.48	0.25
1995 Q3	2.09	1.64	0.44
Annualized			
Last 3 yrs (1992-94)	7.86%	5.89%	1.86%
Last 5 yrs (1990-94)	1.50	-1.96	3.53
Last 10 yrs(1985-94)	17.55	10.16	6.71
Last 23 yrs(1972-94)	12.80%	10.29%	2.27%
Standard Deviation	23.46	20.49	11.08

**Local Market Return vs. Currency Impact
Correlation Coefficients**

	Monthly Last 23 Yrs. 1972-94	Annual Last 23 Yrs. 1972-94	Annual Last 3 Yrs. 1992-94
EAFE	0.05	-0.17	0.08
Germany	-0.06	-0.29	-0.04
Japan	0.13	0.25	0.11
UK	-0.01	-0.24	-0.18

Source: Richards & Tierney based on data from MSCI

Based on the preponderance of statistical evidence on this question, staff holds the consensus view that currency and stock returns are not strongly linked.

Are currencies a separate asset class?

The lack of meaningful correlation between local market returns and the impact of currency over time supports the view that currency should be treated and managed as a separate asset class. Opponents to "currency as a separate asset class" would argue that while there may be no correlation, there is also no expected long term return associated with holding foreign currency. As a result, they maintain, currencies should not be considered strategic assets like stocks and bonds.

For many years, the commonly quoted assumption has been that currency returns "will wash out" over a currency cycle, i.e., a currency may move up or down but will return to an equilibrium value. This view is consistent with purchasing power parity (PPP) and interest rate parity, the two prevailing economic theories concerning the factors that drive currency movements over the long term (see "What theories are used to explain exchange rate movements?" for more information). If this is the case, they argue, short term currency movements should be of little concern to a long term investor.

Do currencies return to their equilibrium value over time? Academic literature and actual experience raise doubts. If there is an equilibrium level it does not appear to be stable (Goodhart 1988). Further, if it does exist, it does not occur over a five year time frame

(Adler and Lehmann 1983). The dollar's long term appreciation against the pound and long term depreciation against the mark and yen (see *Figure 1*) also raise questions about the existence of an equilibrium value over time.

The lack of clarity about the nature of currencies has led some experts to classify currencies as "tactical assets" that can be used to take advantage of shorter term market opportunities. Layard-Liesching (1993) has characterized the differences between "strategic" and "tactical" assets in the following way:

- **Strategic assets** such as stocks and bonds have a stable risk premium and there is a high degree of confidence that the asset will provide positive returns over time. Strategic assets are typically evaluated in terms of risk/volatility versus return and positive returns are always assumed to be available from strategic assets over the long term.
- **Tactical assets** do not have a stable risk premium and do not offer intrinsic return. There is also a high degree of uncertainty whether positive returns will be available even over periods of three years or more. Tactical assets should therefore be evaluated in terms of the acceptable *loss* versus the percent of the return that could have been captured, *if* the opportunity for returns presents itself. The proviso is important because the opportunity to capitalize on tactical assets may not always be present.

Staff's view is that currencies are not a separate asset class in the traditional sense, but they do exhibit a short term risk (especially risk of substantial loss) that should be explicitly managed. This view is consistent with the treatment of currencies as "tactical assets".

What is currency hedging?

Currency hedging reduces an investor's exposure to a currency that is present in a portfolio of non US assets such as international stocks. It is accomplished by buying and selling currencies through the currency markets using forwards, options and futures:

- *Hedging* is selling an amount of foreign currency equal to the value of the foreign stock in the portfolio. This reduces a US investor's exposure to that foreign currency.
- *Cross hedging* is selling an amount of foreign currency and buying a like amount of another foreign currency. This essentially trades exposure to one foreign currency for exposure to another.
- *Proxy hedging* uses a small number of currencies to approximate the behavior of a much larger group of currencies. For example, the twenty different currencies in the EAFE index can be approximated with varying combinations of a few major currencies: yen, pound sterling, mark, French franc, Swiss franc, and Australian dollar. (On June 30, 1995, these six currencies covered about 79% of the value of the EAFE index. Three currencies, yen, pound sterling and mark, covered about 65% of the index.) Proxy hedging can be more efficient and less costly than hedging each currency in a portfolio.

Typically, hedges allow an investor to use the currency markets to lock-in a fixed exchange rate for a period of time. At the end of the hedge, the investor will have a gain or loss from settlement of the forward contract (or other hedging instrument) that will offset the gain or loss due to currency impact in the stock portfolio being hedged:

- If the US dollar weakened/depreciated during the period, currency impact in the stock portfolio would be positive and the return from the hedge would be negative.
- Likewise, if the US dollar strengthened/appreciated during the period, currency impact in the stock portfolio would be negative, and the hedge would provide a positive return.

What is currency management?

For the purposes of this discussion, "currency management" means managing the foreign currency *exposure* in a portfolio of international stocks that a plan sponsor already holds. It does *not* mean allocating an additional a percentage of the fund to a new asset class called "currencies".

The Board needs to make two distinct policy decisions with respect to currency management:

- *Strategic/Constant Hedging.* Should the SBI hedge its currency exposure at all times? This is a strategic decision that affects the risk profile of the total fund. Therefore, this decision should be made within the structure of the SBI's long term asset allocation policy.
- *Tactical/Active Hedging.* Should the SBI attempt to increase or decrease foreign currency exposure at particular points in time? This is a tactical decision that is similar to the decision to use or not to use active management. Therefore, the decision should be made based on a belief that tactical hedging provides an opportunity to add value to the policy benchmark/asset class target.

These concepts are discussed in greater detail in Part 2 and Part 3 of this paper.

Part 2: Policy Decision on Strategic Hedging

What is strategic hedging?

Strategic hedging involves hedging a constant proportion of foreign currency exposure at all times. It can be used to insulate an international stock portfolio from the effect of currency fluctuations and thereby reduce some of the risk associated with international investing.

The use of strategic/constant hedging has been heavily debated in recent years. While the risk reduction benefits can be significant, constant hedging will make international assets "behave" more like domestic assets and will therefore reduce the diversification benefit of including international stocks in a plan's asset allocation.

In order to come to some conclusion about constant hedging, it is advisable to ask two different questions:

- How does currency risk impact an international stock portfolio?
- How does constant hedging impact the risk profile of the total fund?

How does currency risk impact an international stock portfolio?

The chart below shows the risk/volatility of both domestic and international stock portfolios during the floating exchange rate era beginning in the early 1970's.

**Risk in Stock Portfolios
1972-1994
Standard Deviation of Returns**

	(1) Local Stock Risk	(2) Currency Risk	(3) Total Risk	(4) 3+1
MSCI EAFE	+20.5%	+11.1%	+23.5%	1.15
Wilshire 5000	+17.5	none	+17.5	1.00

Sources: Richards & Tierney based on data from MSCI; Ibbotson Associations

The data illustrate several points:

- Currency risk alone (see column 2) is fairly high and is more than half the local market risk in an international stock portfolio.
- Because currency movements are not correlated with local market returns, total risk (see column 3) is much less than the sum of local market risk and currency risk
- Currency fluctuations associated with an unhedged international stock portfolio increased total risk by about 15% compared to a US-only stock portfolio (see column 4).

How does constant hedging impact the risk profile of the total fund?

While the above data indicate that constant currency hedging could significantly reduce the volatility/risk of an *international* portfolio, the SBI's decision to constantly hedge all or a portion of its currency exposure should be made within the context of the risk profile of the *total fund*. At the total fund level, the impact of currency risk is considerably diluted due to the inclusion of other asset classes in the fund's asset allocation policy.

As noted earlier, the issue of how much of a pension plan's international exposure should be constantly hedged has undergone much debate. Unfortunately for plan sponsors such as the SBI, the opinions of experts differ quite widely on this topic. A sample of the varying points of view is presented below:

- Pernold and Schulman (1988) proposed that all investors should hedge 100% of their currency exposure at all times and measure performance against a hedged benchmark.
- Black (1989) also advocated that all investors should hedge the same fraction of their currency exposure at all times regardless of the composition of the underlying portfolio, but proposed that the resulting "universal hedge ratio" should be less than 100%.

- Lee (1990) argues that because currency returns vary significantly, the optimal hedge ratio should also vary from 0-100% and should be managed actively.
- Froot (1993) suggests that all currency hedging is counter productive for investors who evaluate performance over long time horizons.

Staff believes that the most practical approach to this question has been offered in separate studies by Nesbitt (1991) and Jorion (1989). Both suggest that the decision to hedge or not to hedge all currency exposure makes little difference in terms of *total fund* risk when international stocks comprise 10% or less of the total fund's asset allocation.

Nesbitt found that constant hedging reduces total fund risk by only 6 basis points with a 10% allocation to international stocks and by only 24 basis points at a 20% exposure. He also points out that due to the transactions costs associated with constant currency hedging, plan sponsors need to evaluate the risk reduction benefits of constant hedging in conjunction with the costs. He estimated that the likely range of costs for constant currency hedging is 0.25-0.50% annually. Using this data, he postulates the following "hedging rules" for plan sponsors with an average level of risk tolerance:

- Constant hedging will not be beneficial at international allocations below 5% of total assets.
- Constant hedging will be attractive at allocations of 10% only if hedging costs are on the low side of the cost estimate range.
- Constant hedging may be warranted at allocations above 15%, but not for 100% of the international exposure.

Each of the above percentages would be greater if the costs of constant hedging proved to be higher than Nesbitt's estimates. Other estimates put the transactions costs of constant hedging as high as 0.70% annually (7). In addition, Nesbitt appears to ignore any management fee that may be incurred to maintain the constant hedge and does not address any opportunity costs associated with cash flow demands of hedging. Nesbitt's rules also assume "an average level of risk tolerance" on the part of the plan sponsor. If a plan sponsor's risk tolerance were above average, this would also raise the percentages in Nesbitt's guidelines.

Should the SBI control currency risk through constant hedging?

Staff finds the Nesbitt analysis very persuasive. The study presents sufficient data to support the conclusion that the SBI would not benefit from strategic/constant hedging until the international allocation grows well beyond its current level of 10% of the Combined Funds. Staff also believes that the SBI's long term asset allocation policy indicates a risk tolerance that is slightly higher than that of the average plan. As a result, staff concludes that constant hedging would not be beneficial for the Combined Funds until the international allocation reaches 20% or more.

Staff recommends that the SBI reject strategic/constant hedging as long as the allocation to international stocks remains below 20% of the Combined Funds (the current allocation is 10% and the Asset Allocation Committee has recommended that the target be raised to 15%). If the SBI chooses to allocate more than 20% of the retirement funds to international stocks at some point in the future, the possibility of hedging a constant proportion of the currency exposure should be reconsidered and reevaluated.

How should this decision be reflected in the SBI's policy benchmark?

The SBI has chosen to include international stocks in its asset allocation strategy for the Combined Funds based on the diversification benefits they provide on a total fund basis. The analysis that supports that decision was based on the historical risk/return characteristics of the EAFE index, unhedged. As a result, the SBI's policy benchmark or asset class target for the international program has also been the EAFE index, unhedged since the inception of the program.

The policy benchmark should reflect the SBI's decision with respect to strategic/constant hedging. As discussed in the prior section, staff has not identified sufficient justification to introduce a constantly hedged policy position as long as the international allocation remains below 20% of the Combined Funds. As a result, the policy benchmark/asset class target for the international stock program should remain the EAFE index, unhedged.

Staff recommends that the asset class target for the international stock program should remain the EAFE index, unhedged.

Part 3: Policy Decision on Tactical Hedging

What is tactical hedging?

While staff does not recommend that the SBI employ constant hedging at this time, tactical hedging remains an option. The goal of tactical hedging is to add value and/or protect against loss by increasing or decreasing exposure to particular currencies as they strengthen or weaken relative to other currencies. For a US investor, this amounts to a "bet" for or against the dollar. To maximize returns from tactical hedging, a US investor wants to be fully unhedged when the dollar is falling and fully hedged when the dollar is rising. Referring back to *Figure 6*, if all the negative currency impact from 1972-94 could have been avoided by fully hedging the portfolio during those years, an investor would have increased returns by nearly 4 percentage points annualized.

Is such foresight possible? Almost certainly not. As discussed in a prior section (see "What theories explain exchange rate movements?"), economic theories such as purchasing power parity and interest parity have only marginally predictive value over three to five year time frame. On a month-to-month or year-to-year basis, currency movements appear to be driven by a variety of economic, political and psychological variables whose interaction frequently defies prediction or forecast. Nevertheless, currency movements display shorter term trends that should be exploitable through tactical/active management. Investment approaches that capitalize on these trends offer the possibility to enhance returns or to protect against the likelihood of serious loss due to exchange rate movements.

Given their poor predictive value, staff has found very few currency managers who rely solely on fundamental valuations in their investment approaches. Nearly all include some form of technical analysis to discern and interpret the shorter term trends that often overwhelm the effects of a longer term cycle of currency appreciation and depreciation.

While the track records of tactical currency managers is relatively short, often not more than five years, the actual returns of some managers indicate that it has been possible to capture at least 2 percentage points value added annualized relative to the benchmark selected by the client. (It should be noted unhedged benchmarks have not been widely used to date. Fully hedged or partially hedged benchmarks have been more common.)

Should the SBI use tactical hedging?

The SBI is already using tactical/active hedging for a portion of its international exposure:

- Each of the **active** managers has the authority to hedge opportunistically when they believe it will add value/protect from loss. Generally, the SBI's active managers take a fundamental valuation approach to currency and make decisions with a two to three year time horizon in mind. The currency views of "top-down" and "top-down/bottom-up" managers address currency explicitly as part of their investment process may be reflected in their country allocation/stock selection as well as an explicit decision to hedge currency exposure within the portfolio. While the "bottom-up" managers tend to avoid explicit hedging, a currency view is likely to be imbedded in their underlying stock selection decisions. As a result, the SBI's active international stock managers are using tactical currency management either explicitly or implicitly within their existing management processes.
- The **passive** component of the program, on the other hand, is totally unmanaged with respect to currency exposure. Given the large impact of currency (especially the negative impact during periods of dollar strength) staff believes that the SBI should consider tactical/active hedging for this portion of the portfolio as well.

Since the SBI initiated its international equity program in October 1992, the US dollar has generally depreciated relative to other currencies. This means that the SBI's decision to leave the indexed portfolio unhedged has been beneficial to overall returns to date.

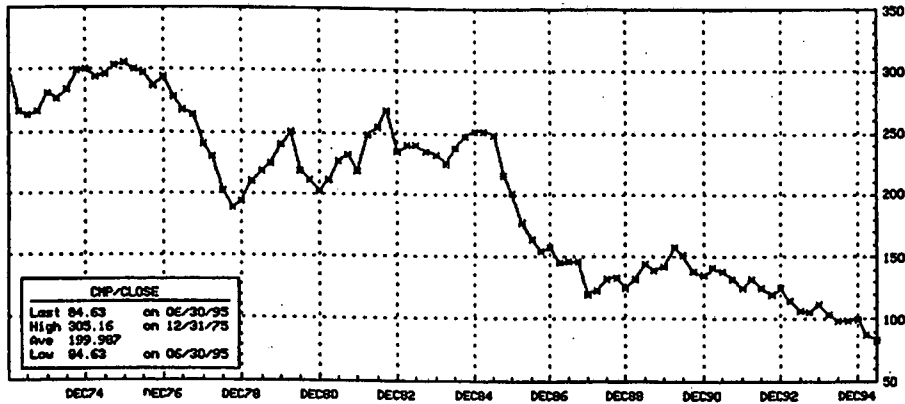
If that is the case, why should the SBI consider changing its policy with respect to the EAFE index fund? As data in a prior section would suggest (see "What impact does currency have on portfolio returns?"), an unhedged/unmanaged stance is unlikely to be beneficial on a consistent basis. *So far*, the lack of attention to currency management in the SBI's EAFE index fund has not been detrimental. If the history of currency movements over the last 20 years is any guide, the SBI cannot count on that situation to continue.

After reaching historic lows against major currencies in late 1994 and early 1995, the US dollar began to strengthen against the yen in July and August 1995 (see *Figure 7*). If the

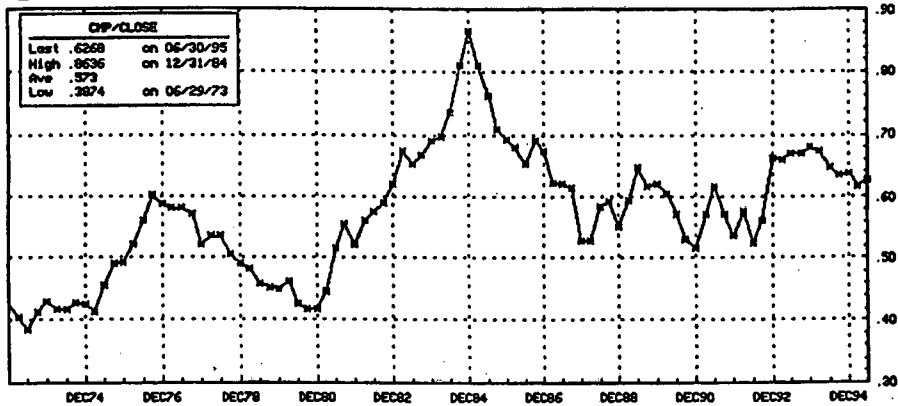
Figure 7

Spot Rate for Dollar vs. Yen, Mark, Sterling
January 1973 - June 1995

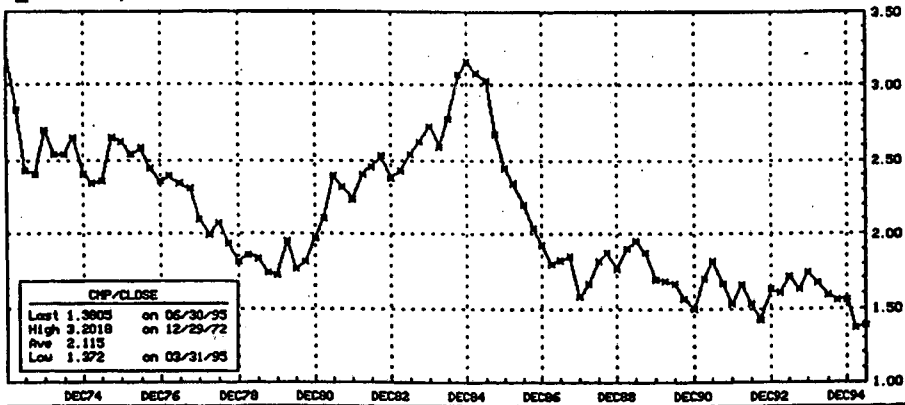
PRICE GRAPH for JPS JAPANESE YEN
RANGE 12/29/72 TO 6/30/95 PERIOD Q (D-W-M-Q-Y)
1(1=PRICE, 2=US\$/¥)



GRAPH for BPS STERLING SPOT
RANGE 12/29/72 TO 6/30/95 PERIOD Q (D-W-M-Q-Y)
1(1=PRICE, 2=£/US\$)



PRICE GRAPH for DMS DEUTSCHE MARK SPOT
RANGE 12/29/72 TO 6/30/95 PERIOD Q (D-W-M-Q-Y)
1(1=PRICE, 2=US\$/DM)



Source: Bloomberg

US dollar continues to strengthen, the SBI could see much of the past gains due to currency impact disappear.

Given the large impact that currency exposure has on returns, staff recommends that the currency exposure of the entire international program be explicitly managed. The goal of tactical currency management should be to add value to the currency exposure of the policy benchmark which is the EAFE index, unhedged.

- **Since tactical currency management is already being addressed by the active managers, no change in policy is required for that half of the international stock portfolio *at this time*. The currency management capabilities of the existing managers should, however, be scrutinized in the future to determine whether their approaches to currency management are likely to add value over time.**
- **Since the currency exposure of the EAFE index fund is entirely unmanaged, staff recommends that the SBI consider introducing a tactical/active hedging program for the remaining half of the international portfolio.**

What goals should be established for a tactical hedging program?

Based on the information and analysis presented in this paper, staff believes that a tactical hedging program for the EAFE index fund should have the following goals. They are listed in descending order of importance:

1. Avoid/minimize loss to the portfolio in periods when the dollar rises/strengthens relative to another currency or group of currencies.
2. Participate in gains available to the portfolio in periods when the dollar falls/weakens relative to another currency or group of currencies.
3. As a consequence of 1 and 2, reduce the volatility of returns associated with currency exposure in the underlying stock portfolio.

While attainment of these objectives should add value to the international program over time, it should be recognized that there is an element of "insurance" (i.e. protection against

the negative effects of a rising dollar) associated with tactical currency management. There may be times when the SBI will pay an "insurance premium" in terms of management fees and transactions costs without observable return to the portfolio because the negative event does not occur within the measurement period. (As discussed below, this will impact the pattern of performance relative to the benchmark selected by the SBI for its currency overlay program.)

What benchmark and return expectations are appropriate?

The goal of the SBI's active management program for any asset class is for the active manager group, in aggregate, to add value to the policy benchmark or asset class target. It follows, then, that the goal of a tactical/active hedging program should be to add value to the currency component of the EAFE index, unhedged.

While this conclusion is consistent with the SBI's approach for active management of strategic assets such as stocks and bonds, its limitations for measuring the performance of a tactical hedging program need to be explicitly recognized:

- In general, a tactical hedging program will be unable to add much value to an unhedged benchmark during periods when the dollar is falling/depreciating because the benchmark itself reflects the optimal stance with respect to currency exposure. During these periods, even if the manager's currency position is "right", the manager is likely to underperform an unhedged benchmark due to the management fees and transactions costs associated with the investment approach (i.e., the "insurance premium" associated with currency management).
- Likewise, while tactical/active hedging should be expected to add value to an unhedged benchmark when the dollar is rising/appreciating, the extent of the value added will be dependent on the extent of the dollar's move relative to other currencies.

As a result, it may be necessary to evaluate performance differently during periods of dollar strength and dollar weakness as long as an unhedged benchmark is used for the tactical/active hedging program.

In order to address this measurement problem, some plan sponsors have elected to use a 50% hedged benchmark for their hedging programs. Theoretically, this benchmark should allow a manager to add value on a more consistent basis because the hedging program could move away from the benchmark (i.e., make measurable bets) under both dollar strength and dollar weakness.

Staff recommends that the SBI use the EAFE index, unhedged as its benchmark for the tactical hedging program, *provided* that the SBI explicitly recognizes that a hedging program is likely to underperform that benchmark during periods of dollar weakness/depreciation.

Return Expectations

Consistent with the objectives outlined above, staff believes the following return expectations are realistic for a tactical hedging program:

- During periods of dollar strength/appreciation, the manager should be expected to protect the portfolio against currency loss of 3 percentage points or more, annually.
- During periods of dollar weakness/depreciation, the manager should be expected to underperform the benchmark by no more than 3 percentage points, annually.
- Over a full cycle of strength and weakness, a tactical/active hedging program should be expected to add at least 1 percent point annualized to the return of the benchmark, net of all costs.

Staff recommends that the SBI should not proceed with a tactical/active hedging program for the EAFE index fund if it appears the above expectations are unrealistic. Lower levels of value added will not be sufficient to justify the administrative effort needed to support the program.

Part 4: Implementation Alternatives

What management options are available to the SBI?

If the SBI chooses to implement a tactical hedging program for the EAFE index fund, two types of programs are available:

- *Currency overlay management*, where a manager uses a hedging program to alter the currency exposure of a portfolio without affecting the underlying securities. In currency overlay, the manager is responsible for deciding when to hedge/not to hedge and executes the hedges on behalf of the client.
- *Currency advisory relationships*, where an external firm provides advice on when to hedge/not to hedge, but another entity (the plan sponsor, custodian bank or another investment manager) is responsible for executing the recommended hedges.

What has been the experience with currency overlay?

Currency overlay is a relatively new phenomenon among US pension plan sponsors. The first publicly announced currency overlay program in the US was implemented in 1989. According to data from InterSec, US tax exempt investors had about \$25 billion in currency overlay programs as of June 1994. This equals about 11% of all international stock exposure among those investors (8). Generally, only the larger and more sophisticated funds currently employ currency overlay strategies. (See *Appendix C* for a list of plan sponsors known to use currency overlay programs).

While new to the plan sponsor community, banks and corporations have been managing the currency exposure of their corporate assets for some time. Not surprisingly, some of the currency overlay approaches in use today are based on the past experience of professionals in the banking and corporate treasury arena. In addition, some investment managers have historically held the view that currency and security decisions should be made separately. Several of those firms developed approaches to currency management for stock and bond portfolios that evolved into currency overlay products. As interest in currency overlay grows, firms that specialize in this area are becoming more common.

Style Groups

Since the list of managers who provide currency overlay products is relatively short, obvious style groupings have not yet emerged and each manager's approach is somewhat unique. It is helpful, however, to think of managers lying somewhere on a continuum between two end points:

- **Forecast Approach.** These managers increase or decrease currency exposure based on their own forecasts of the direction and level of exchange rates. This approach is similar to the more traditional notion of active management for stocks or bonds. It includes an element of market timing that may be based on fundamental valuations, technical analysis, or both.
- **Systematic Approach.** These managers generally make no forecasts about the direction of currency movements or level of exchange rates and concentrate on avoiding potential loss due to the currency exposure of the underlying portfolio. They also expect to participate in the gains associated with currency depreciation. It would include managers who use options-based techniques and those who develop risk models specific to currency management.

Since the goal of either approach is to add value, both should be considered tactical/active currency management. The paths the managers take to that goal, however, will differ.

Historical Returns

Currency overlay is relatively new and the performance histories of currency overlay managers are correspondingly short. It is unusual to find managers with verifiable track records based on managing "real" portfolios for much more than five years.

In general, the available data indicate that currency overlay managers have been able to add value during periods when the dollar is rising against other currencies. Managers appear to have a more difficult time generating value added during periods when the dollar is falling, especially when measured against an unhedged benchmark. (This is not surprising since it is difficult to surpass the returns generated by a totally unhedged stance when the dollar is weak.) Most currency overlay managers also appear to encounter difficulty when exchange rates move up and down in a relatively narrow range for an extended period of time.

Over an entire currency cycle, currency managers themselves state that they should be expected to provide at least 2-3 percentage points of value added annualized to the benchmark selected by the client. Defining just when the cycle begins and ends will, of course, be subject to debate and interpretation. How much value added is realistic to expect will depend, in part, on how much downside risk a plan sponsor is willing to endure over the short term. As with all investment approaches, the greater the short term risk/volatility, the higher the long term expected return.

Management Structure

Unlike other assets, there is not much room for style diversification within a currency overlay program. As a result, staff believes the following recommendations regarding management structure are appropriate:

- **No more than two (2) managers should be retained for the SBI's currency overlay program.**
- **If a single manager is selected, the manager should use a systematic approach to currency management. This is consistent with the primary objective of adding value by avoiding loss during periods of dollar appreciation. It will also produce a more predictable pattern of returns.**
- **If two managers are selected, one should have a systematic approach and the other should have an element of forecasting. This would provide some measure of style diversification. Two managers from the same end of the style continuum (i.e., both systematic or both forecasters) would be counterproductive.**

What has been the experience with currency advisory relationships?

Staff is not aware of publicly available data on the performance of hedging programs using currency advisory relationships. However, several currency overlay managers state that they do provide such services at the present time. They report that the results have closely approximated the returns available through their currency overlay products.

Generally, the currency advice is transmitted via a set of recommended trades that are then executed by another entity (the plan sponsor, the custodian bank or another manager). It seems likely that strategies that rely on complex trading strategies to extract their value added or require the ability to trade on a 24 hour basis would be more difficult to implement in this fashion.

Part 5: Recommended Structure

As noted earlier, staff believes the currency exposure of the entire EAFE index fund should be tactically managed. However, given the short history of most currency managers, it seems prudent to implement a program that has a simplified and relatively straightforward structure. The program could be expanded over time as experience with currency management grows and actual results can be more thoroughly examined.

Staff recommends the following parameters for the program:

Currencies Included. The program should be limited to currencies that comprise 5% or more of the exposure in the EAFE index. Together these currencies are expected to cover at least 75% of the currency exposure in the EAFE index. They are also the most liquid currencies in world markets:

Percentage of EAFE Index as of June 30, 1995

Japanese Yen	40.9%
British Pound Sterling	16.8
German Mark	7.1
French Franc	6.3
Swiss Franc	5.7
Total	76.8%

Benchmark. The benchmark for the program should be the unhedged return of the above currencies. The weights given each currency will be based on the proportionate weight in the underlying EAFE index and rebalanced on a quarterly basis.

Operating Constraints. Hedging the above exposures back to the US dollar is the only type of hedge that should be authorized. Cross hedging and proxy hedging should not be allowed. Net long or short currency positions should be prohibited.

Authorized Instruments. Currency positions should be implemented using currency forwards, options or futures. The manager should have the flexibility to use over-the-counter as well as listed/exchange traded instruments.

Portfolio Size. At a 10% allocation to international stocks, the EAFE index fund is approximately \$1.0 billion. At the 15% allocation to international stocks recently recommended by the Asset Allocation Committee, the EAFE index fund would be approximately \$1.5 billion. The size of the currency management program under both allocations is shown below:

	with 10% target/ (\$1.0 billion index fund)	with 15% target/ (\$1.5 billion index fund)
Japanese Yen	\$409 million	\$613.5 million
British Pound Sterling	168 million	252.0 million
German Mark	71 million	106.5 million
French Franc	63 million	94.5 million
Swiss Franc	57 million	85.5 million
Total	\$786 million	\$1152.0 million

Part 6: Administrative Issues

There are several administrative issues that need to be addressed by plan sponsors embarking on a hedging program:

- funding the associated cash flows
- providing for adequate counterparty banks
- interface with the custodian

Funding Cash Flows

Unlike traditional asset managers who require receipt of securities and/or cash equivalents to initiate their investment program, currency overlay managers/currency advisory relationships require only a line of credit to begin a hedging program. As the hedging instruments (usually forwards or options) mature, the settlement process will generate either positive or negative value depending on the way exchange rates move.

The gains and losses of a tactical/active hedging program are realized at the time of maturity. Gains result in cash deposits to the fund. If there is a loss, the plan sponsor will need to deliver cash at settlement and provisions must be made to assure cash is available. There are two ways this can be handled:

- *Use Assets from the Total Fund.* Since the direction of cash flows generally can be estimated with two to four weeks notice, the manager/advisor can provide the plan sponsor with sufficient notice to deliver the necessary cash on the settlement date. This is an effective way to handle realized losses, provided the plan sponsor has adequate cash somewhere in the portfolio to provide for these potential cash draws. If sufficient cash is not available, the plan sponsor would be forced to liquidate other securities to raise the cash to settle the forward contracts or options. In addition to the transactions costs necessary to liquidate securities, this process also could have a detrimental impact on the fund's asset allocation policy. This would be most pronounced during a period when currency market trends generate a prolonged period of losses.
- *Establish a Cash Buffer for the Overlay Program.* In this instance, a cash account is established with the custodian bank specifically for the use of the currency overlay

manager. Cash flows associated with the overlay program would be deposited or withdrawn as necessary. The advantage is that the fund would not be forced to liquidate securities at potentially inopportune times to settle losses on the hedging program. On the other hand, while a cash buffer provides a distinct funding source, it also entails an opportunity cost because the assets invested in cash equivalents will likely generate a lower rate of return than other assets over the long term.

If a tactical/active hedging program is implemented for the EAFE index fund, staff suggests that the SBI maintain a cash buffer of approximately \$30-40 million at all times.

Providing for Adequate Counterparty Banks

Since a currency overlay manager/currency advisor does not control the underlying assets associated with the hedging program, lines of credit must be established between the plan sponsor and the bank(s) with whom the hedging instruments are traded. Designated counterparty banks will quote prices on the forward contracts and will be responsible for delivery at the time of settlement. Ordinarily, a plan sponsor will need to establish counterparty relationships with four to six banks or financial institutions to ensure that the manager has access to the most competitive rates. In addition, diversifying across a number of counterparties will reduce the credit risk associated with an individual institution.

There is some legal/constitutional question about the ability of the SBI to enter into relationships that require lines of credit. If this proves to be insurmountable, the SBI would need to explore other alternatives such as providing pools of collateral to back currency transactions.

Interface with the Custodian

Adequate custodial services are integral to the smooth operation of a currency overlay program. At a minimum:

- The custodian must be able to provide the manager with access to all transaction data related to the overlay account. This would include spot and forward positions in each currency along with estimates of the market value of the outstanding contracts. This data will be essential for the currency overlay manager and should be produced through a daily data download or made available directly through on-line computer access.

- The custodian must be able to calculate hedged and unhedged rates of return using time weighted rate of return methodology and determine the currency contribution to return. This capability will be necessary to enable returns on the currency overlay program to be integrated with the other components of the plan sponsor's reporting and performance measurement system.

Staff believes that the SBI's current custodian for retirement assets, State Street Bank & Trust, has at least adequate services available in both areas. Most currency overlay managers already have at least one State Street client and they report their interaction has been satisfactory.

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Endnotes

1. This data is taken from Roger G. Ibbotson and Gary P. Brinson, *Global Investing: The Professional's Guide to the World Capital Markets*, p.26
2. Based on data published in "Central Bank Survey of Foreign Exchange Market Activity in April 1992" published by the Bank for International Settlements.
3. There are other theories that are used to explain the relationship of exchange rates:
 - The **Fischer Open Relation** is a more sophisticated version of interest rate parity. It states that the observed interest rate is composed of two parts, the inflation rate and the real interest rate. If real rates are equal across countries, then the difference in interest rates between two countries can be solely explained by the difference in inflation. Investors will allocate funds to the country with the highest real rates of return until the rates are equalized. Like purchasing power parity (PPP), this theory is better suited to explaining long term exchange rate movements than shorter term trends.
 - The **Exchange Rate Expectation Hypothesis** states that the expected spot rate for one period from now should be equal to the current forward rate for that same period. Since empirical evidence shows that forward rates have no forecasting value for future spot rates, this theory is not widely used.
 - The **Balance-of-Payments Approach** holds that when a country has a balance of payments deficit, the country will have a correspondingly higher demand for foreign currency. This higher demand will cause foreign currencies to appreciate. Eventually, this theory says that the currency of the deficit producing country will depreciate, making its goods and services more attractive in the marketplace. In turn, this will work to restore equilibrium currency prices. Critics of the theory say that the balance of payments status is a reflection of the past and that surplus/deficit trends are only one factor that impact currency relationships.
4. The formula for purchasing power parity (PPP) can be stated as:

$$\frac{S(1)}{S(0)} = \frac{1+I(f)}{1+I(d)}$$

where:

- S(1) = the future spot rate of a foreign currency one period from now
S(0) = the current spot rate of a foreign currency
I(f) = foreign inflation rate
I(d) = domestic inflation rate

5. The formula for interest rate parity can be stated as:

$$\frac{1+i(f)}{1+i(d)} = \frac{F(1)}{S(0)}$$

where:

- i(f) = foreign nominal interest rate
- i(d) = domestic nominal interest rate
- S(0) = spot rate
- F(1) = forward rate for delivery at time 1

6. For further discussion see Arnott and Pham (1993), Kritzman (1993), Kubarych (1983) and Ramaswami (1993).
7. Callan Associates cites "street" estimates of 20 to 70 basis points annually. They estimated trading costs of 52 basis points annually to using one-month forward contracts. This cost estimate includes a 5 b.p. opportunity cost for the associated with cash flows but does not include any additional management fee to maintain the constantly hedged position. See "Foreign Currency and Institutional Portfolio: Practical Issues to Consider", p. 19.
8. An "InterSec Client Memorandum" dated October 1994 provides the following data for US tax exempt investors as of June 1994:

total international equity assets	\$226.0 billion
total currency overlay	24.6 billion
overlay as percent of intl. assets	10.9%

Appendix A

Glossary of Terms

Central Banks	The central monetary authority of a government. Central banks determine the supply of money and the general level of interest rates in a country. In the US the central bank is the Federal Reserve.
Cross Hedge	Selling an amount of one foreign currency and buying a like amount of another foreign currency.
Currency	The monetary unit of a sovereign state. For example, US dollar, Japanese yen, German mark (deutschmark), British pound sterling.
Currency Overlay	The process of altering/managing the currency exposure of an international portfolio without affecting the composition of the underlying stocks.
Currency Risk	The volatility in returns associated with a movement in exchange rates.
Devaluation	An action by a governmental authority to unilaterally lower the value of its currency. Devaluation will lower the existing exchange rate for a currency.
Dollar strength	A rise/appreciation in the value of the dollar relative to another currency or currencies. When the dollar strengthens, a US investor will see <i>losses</i> in an international portfolio due to currency.
Dollar weakness	A fall/depreciation in the value of the dollar relative to another currency or currencies. When the dollar weakens, a US investor will see <i>gains</i> in an international portfolio due to currency.
Fixed Exchange Rate	An exchange rate mechanism by which a currency or group of currencies is pegged or "fixed" to the value of another asset. Generally, under fixed rate regimes, the only exchange rate risk is the risk of devaluation/revaluation.

Floating Exchange Rate	An exchange rate mechanism where the value of currency is determined by market forces. Rates will move up and down or "float" based on economic, political and psychological variables.
Forward Rate	The price for delivery of a currency at a specified date in the future. Most forward contracts are for periods of one, three or six months.
Hedge	Selling an amount of foreign currency and buying a like amount of the US currency.
Hedging	Action taken to reduce the exposure of a currency or group of currencies in an underlying international stock portfolio.
Interest Rate Parity	An economic theory that states that exchange rates will adjust to offset the difference in the level of interest rates between countries.
Option	The right but not the obligation to buy or sell an asset at a specified date in the future for a specified price.
Purchasing Power Parity	An economic theory that states that exchange rates will adjust to offset the difference in inflation rates between countries.
Revaluation	An action by a governmental authority to unilaterally raise the value of its currency. Revaluation will raise the existing exchange rate for a currency.
Spot Rate	The price for delivery of a currency for immediate delivery; today's price for a currency.
Unhedged	State where no attempt is being made to alter the currency exposure of an underlying stock portfolio.

Appendix B

A Short History of Exchange Rates

During the last century, currency markets have been subject to a mix of fixed and floating exchange rate environments. The major regimes are outlined below.

The Gold Standard

During the period prior to World War I (c. 1880 to 1914) the value of a nation's currency was dependent on its reserves of gold. Each country maintained a direct and fixed relationship between its official stock of gold and its currency and paper money could be freely converted into gold. Gold was also used as the mechanism to settle international trade and investment transactions. As a result, there was a direct link between the balance of payments position of a country and its domestic money supply. Pegging each currency to gold led to fixed exchange rates. For example, if 1 ounce of gold = \$500 and 1 ounce of gold = 100 pounds, the US/British exchange rate would be "fixed" at 5 to 1.

The gold standard was expected to be a self balancing mechanism based on international trade flows (also called the "price-specie flow"). If a country ran a trade deficit, it would be paying out a greater portion of gold than it was taking in. Since the money supply and gold were directly linked, the net loss of gold reserves also lowered the supply of that currency. A lower money supply would force a reduction in prices for domestic goods and make that nation's exports more attractive to its trading partners. This would lead to an increase in exports and to a correction in the balance of payments/trade deficit.

It is generally thought that nations were willing to uphold the gold standard because they placed a premium the economic benefits of free international trade even if this came at the expense of domestic economic goals (e.g., deficit spending aimed at various social priorities, a build up of defense, etc.).

The Interwar Period

The gold standard was abandoned during the WWI when the domestic priorities of defense spending took precedence over free trade. Britain was the first to opt out in 1914 and most other nations quickly followed suit. While attempts were made to revert to the gold standard when hyperinflation struck in Germany and other countries after the war, the system ultimately collapsed by the mid 1930's. Its demise is generally attributed to aggressive rounds of currency devaluation by countries seeking to make their exports more competitive. This type of "beggar thy neighbor" policy had a destabilizing effect that made the gold standard impossible to uphold for most nations. By 1934, the only currency that was officially convertible to gold was the US dollar.

The Bretton Woods Era

At the close of World War II, representatives of the Allied governments met in Bretton Woods, New Hampshire to confer on future monetary and trade policy. The resulting Bretton Woods Agreement of 1944 was designed to restore stability to the international economic system and prevent the types of "abuses" that arose during the interwar period. It was also designed to provide governments with some measure of monetary flexibility to attain domestic economic goals that would require the ability for governments to run deficits a nation's balance of payments.

The ideas of John Maynard Keynes, Britain's foremost economist at the time, and Harry Dexter White, the US Secretary of the Treasury, dominated the discussion and shaped the ultimate agreement. The Agreement was also influenced by a League of Nations report issued at the end of WWII which labeled floating rates as highly undesirable. The report said that floating rates discouraged international trade and postulated that unpredictable exchange rates would have severe repercussions on the deployment of domestic resources.

Under the agreement that was finally negotiated, the US government (which had 60% of the world's gold reserves at the end of WWII) would guarantee that the dollar would be convertible to gold at \$35 per ounce and the exchange rate for other currencies would be pegged to the dollar. The "fixed dollar standard" or "fiat money standard" gave other nations an indirect link to gold and thus preserved the goal of fixed exchange rates. If a nation's currency began to move away from the stated rate, its government would be forced to intervene to bring it back to equilibrium through the imposition of capital controls. In addition, in rare circumstances, official revaluation/devaluation of a currency was possible. The International Monetary Fund (IMF) was created to provide liquidity in times of imbalance and it was given authority to grant limited and temporary balance of payments credits to assist nations in maintaining monetary equilibrium.

Though the Agreement was created in 1944, it did not become fully operational for some time. For example, conditions for convertibility were not established for many European nations until 1958. West Germany did not comply until 1961 and Japan entered the system in 1964.

There are many reasons, some structural and some political, given for the demise fixed dollar standard. The following perspectives are the most commonly cited explanations:

- Attaining the goals of increased trade and investment required additional liquidity in the international monetary system. Under the fixed dollar standard, this expansion required more US dollars, but this, in turn would erode confidence in the \$US/gold convertibility standard that was the linchpin of the Bretton Woods Agreement. The untenable choice between a liquidity crisis or a crisis of confidence was identified as early as 1959 and became known as the "Triffin Dilemma" after the author of the article in which the predicament was first written.

- The adjustment mechanism in the Agreement was inadequate. The conditions that should lead to devaluation/revaluation were not well specified and countries were reluctant to take either action to restore equilibrium to the system.
- As the supply of US dollars expanded to finance the expansionist economic policies of the Johnson and Nixon administrations, countries with a balance of payments surplus had to expand their monetary supply to maintain a fixed exchange rate based on the dollar. This had the effect of "exporting inflation" and meant that the stronger a country's currency, the less control it had over inflationary pressures. This runs counter to assumptions about economic "fairness".
- The growth of multinational companies and the creation of the unregulated Eurodollar market made national management of exchange rates ineffectual.
- The use of the US dollar as the world's reserve currency led to a misuse of economic power by the US. As long as foreign holders of US dollars did not demand convertibility to gold, the US was afforded a unique opportunity to engage in expansionist money policy associated with defense spending, foreign aid and domestic programs without additional domestic taxation. Ultimately, this situation could not persist and the US would be forced to renege on the basic premise of the Bretton Woods Agreement.

In the late 1960's, the demands for gold convertibility on the US dollar began to increase rapidly when the value of gold had surpassed the stated fixed conversion rate. In August 1971, US President Nixon suspended gold convertibility and imposed a 10% surcharge on certain imports in an effort to get other countries to negotiate new currency parities with new fixed rates that would reflect a devaluation of the dollar.

The major economic powers met at the Smithsonian Institution in December 1971. The resulting "Smithsonian Agreement" accommodated the desire of the US for devaluation of the dollar and provided for wider bands of fluctuation around the fixed rates before government intervention would be required. However, the devaluations of the dollar in December 1971 and February 1973 were generally regarded as "too little, too late" to save fixed rates and the dollar became fully floating by the end of 1973.

Floating Rate System

The beginning of the floating rate era is usually pegged to the 1973 action by the newly formed European Monetary Union (EMU) to allow the US dollar to freely float against the participating European currencies. In 1979, the EMU gave way to the European Monetary System (EMS) which sought to establish tighter bands of fluctuation for currencies in the EMS relative to each other, but retained a free float against the dollar.

While most nations felt that floating rates should be temporary, it became impossible to re-institute a fixed rate system due to divergent national priorities. For example, the UK saw floating rates as compatible with its expansionary domestic priorities and West Germany,

Switzerland and Holland believed that floating rates would offer freedom from imported inflation. France, on the other hand, demanded a return to fixed rates to prevent what they felt would be inevitable chaos and Japan appeared primarily concerned about the effect of fixed rates on its growing exports. In addition, the shock of the oil crisis and the emergence of stagflation heightened economic uncertainty worldwide and served to extend the growing inertia with respect to re-establishing some type of international agreement on exchange rates.

While it is often referred to as a floating rate "system" it is not supported by an international agreement on how it should operate or a mechanism to ensure international economic cooperation. In the early 1980's, the US was generating higher and higher deficits which were blamed on an overvalued dollar which, in turn, made US exports uncompetitive. The major economic powers, the "Group of Five" or "G-5" (US, UK, Japan, Germany and France) met in 1985 at the Plaza Hotel in New York City to discuss domestic and international priorities. In the resulting "Plaza Accord", they agreed coordinate their respective economic policies in an attempt to drive down the value of the dollar. In 1987, the G-7 (the former G-5 plus Canada and Italy) met at the Louvre in Paris and signed the "Louvre Accord" in which the members agreed to cooperate to reduce the variability in exchange rates by government intervention in the currency markets to slow the speed with which exchange rate adjustments occur. Some have termed this situation a "dirty float" because this type of intervention means that exchange rates are not determined purely by market forces.

Readers desiring more information on the history of exchange rates and the political ramifications of the various regimes should refer to Gilpin (1987) and Walter (1993).

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Tab G

COMMITTEE REPORT

DATE: September 18, 1995

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 items:

- Review of current strategy.
- Results of review sessions with a private equity manager, Zell/Chilmark and a real estate manager, Zell/Merrill Lynch Real Estate.
- Discussion of strategy for alternative investments

No action by the Board is requested at this time.

INFORMATION ITEMS:

1) Review of Current Strategy.

To increase overall portfolio diversification, 15% of the Basic Retirement Funds and 5% of the Post Retirement Fund are allocated to alternative investments. Alternative investments include real estate, private equity 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 **Attachments A and B**).

Basic Funds

- 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 \$566 million to twenty-one (21) commingled real estate funds.

- The private equity investment strategy is to establish and maintain a broadly diversified private equity portfolio comprised of investments that provide diversification by industry type, stage of corporate development and location. To date, the SBI has committed to twenty-nine (29) commingled private equity funds for a total commitment of \$838 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.

Post Fund

- The Post Fund assets allocated to alternative investments will be invested separately from the Basic Funds' alternative investments to assure that returns are accounted for appropriately. Because the Post Fund invests the retired employee's pension assets, an allocation to yield oriented alternative investments will be emphasized. The Basic Retirement Funds' invest the active employees' pension assets and have less concern regarding the current yield for their alternative investments. Since 1994, the SBI has committed \$135 million to five (5) yield oriented private equity funds for the Post Fund.

2) Results of Review Sessions with Existing Managers.

During the quarter, staff held a review session with one of the SBI's private equity managers, Zell/Chilmark, and one of the SBI's real estate managers, Zell/Merrill Lynch.

The meetings with both managers went well and produced no major surprises.

Summaries of the review sessions are included as **Attachments C and D** of this Committee Report.

3) Discussion of Strategy for Alternative Investments

At its meeting on August 23, 1995 the Alternative Investment Committee and staff reviewed the strategy, process, status and expectations for the SBI's alternative investment allocation. Some of the more important points discussed at the meeting are included in **Attachment E** and summarized below:

- Over the last two to three years, the SBI has been active in making new commitments to alternative investments. Within this area, commitments to real estate and resource funds have increased and commitments to private equity funds have declined.
- The alternative investment allocation has significantly expanded in recent years due to increases in the market values of the Basic and Post Retirement Funds and the addition of an alternative investment allocation for the Post Retirement Fund. Also, the overall portfolio is still relatively young (average age of commitments is 7.3 years for real estate, 4.9 years for private equity and 7.9 years for resource funds).
- Private equity has been an excellent performer for the SBI. Real estate and resource funds have performed well relative to the experience of the real estate and resource markets overall.
- The SBI is very selective and invests in only a very few of the investments it reviews. Given the current status of the alternative investment markets, future investments will continue in a very selective manner and will target specialty private equity situations, real estate and resource investments.
- A consistent long term allocation to alternative investments is very important. A consistent allocation helps assure the quality of deal flow presented to the SBI and the SBI's credibility and desirability in the market.
- Given the structure of the SBI's alternative investment approval process, significant and appropriate controls are already in place to limit, screen and regulate the composition and size of the alternative investment allocation. Each investment recommended by staff must be approved at several levels of approval before any investment commitments can be executed.

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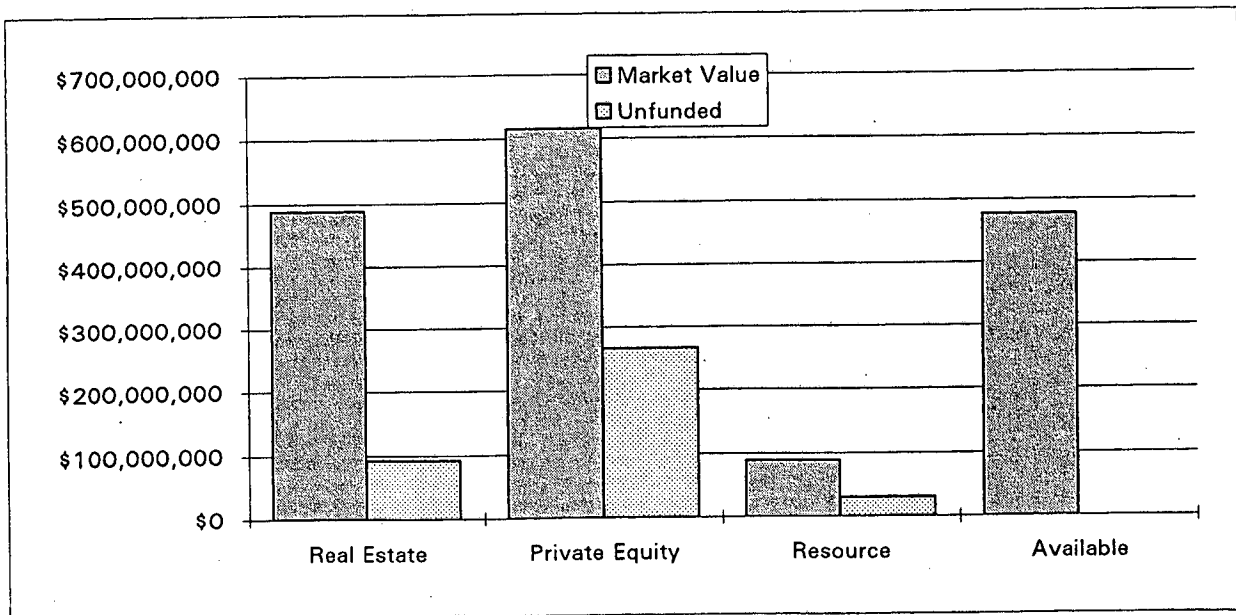
ATTACHMENT A

Minnesota State Board of Investment Alternative Investments Basic Retirement Funds June 30, 1995

Market Value of Basic Retirement Fund (Basic)	\$11,129,101,364
Amount Available For Investment	\$476,487,406

	<i>Current Level</i>	<i>Target Level</i>	<i>Difference</i>
Market Value	\$1,192,877,799	\$1,669,365,205	\$476,487,406
MV + Unfunded	\$1,582,896,594	\$2,225,820,273	\$642,923,679

Asset Class	Market Value	Unfunded Commitment	Total
Real estate	\$488,476,046 4.4%	\$92,415,343 0.8%	\$580,891,389 5.2%
Private Equity	\$615,561,241 5.5%	\$266,539,879 2.4%	\$882,101,120 7.9%
Resource	\$88,840,512 0.8%	\$31,063,573 0.3%	\$119,904,085 1.1%
Total	\$1,192,877,799 10.7%	\$390,018,795 3.5%	\$1,582,896,594 14.2%



ATTACHMENT A (con't)

STATE OF MINNESOTA ALTERNATIVE INVESTMENTS - BASIC FUNDS June 30, 1995

	INCEPTION DATE	TOTAL COMMITMENT	FUNDED COMMITMENT	MARKET VALUE	DISTRIBUTIONS	UNFUNDED COMMITMENT	IRR (%)	PERIOD (YEARS)
REAL ESTATE								
AETNA 013420	Sep-94	2,591,431	2,591,431	2,772,331	0	0	8.01	0.7
AETNA 007367	Apr-82	40,000,000	40,000,000	65,689,100	0	0	4.21	13.2
AEW III	Sep-85	20,000,000	20,000,000	17,550,784	4,358,101	0	0.97	9.8
AEW IV	Sep-86	17,400,000	15,000,000	4,739,331	829	2,400,000	-12.60	8.8
AEW V	Dec-87	15,000,000	15,000,000	9,909,942	1,173,287	0	-4.15	7.5
AMERICAN REPUBLIC COLONY INVESTORS II	Feb-90	1	1	1	0	0	0.00	5.4
EQUITABLE	Apr-95	40,000,000	671,676	671,676	0	39,328,324	0.00	0.2
FIRST ASSET REALTY	Oct-81	40,000,000	40,000,000	74,538,937	0	0	5.05	13.7
HEITMAN I	Apr-94	907,097	907,097	862,626	9,162	0	-3.15	1.2
HEITMAN II	Aug-84	20,000,000	20,000,000	11,578,484	12,048,213	0	2.54	10.9
HEITMAN III	Nov-85	30,000,000	30,000,000	25,232,030	13,679,267	0	3.64	9.6
HEITMAN V	Jan-87	20,000,000	20,000,000	13,368,330	7,332,781	0	0.54	8.4
LASALLE	Dec-91	20,000,000	20,000,000	21,840,523	2,432,900	0	7.11	3.6
PAINÉ WEBBER	Sep-91	15,000,000	9,448,127	9,773,608	938,366	5,551,873	5.89	3.8
REALTY ASSOCIATES FUND III	Feb-90	500,000	500,000	162,475	121,448	0	-11.78	5.4
RREEF	Jun-94	40,000,000	31,400,000	28,012,381	7,214,073	8,600,000	8.35	1.1
TCW III	May-84	75,000,000	75,000,000	70,080,976	24,724,012	0	2.93	11.1
TCW IV	Aug-85	40,000,000	40,000,000	30,094,182	10,900,073	0	0.31	9.9
ZELL/MERRILL LYNCH II	Nov-86	30,000,000	30,000,000	22,787,931	2,399,405	0	-2.38	8.7
ZELL/MERRILL LYNCH III	Nov-91	50,000,000	40,388,854	55,386,500	1,713,084	9,611,146	16.86	3.6
ZELL/MERRILL LYNCH III	Jan-94	50,000,000	23,076,000	23,423,900	388,406	26,924,000	4.44	1.4
TOTAL REAL ESTATE		566,398,529	473,983,186	488,476,046	89,433,407	92,415,343		
PRIVATE EQUITY								
ALLIED	Sep-85	5,000,000	5,000,000	2,884,045	3,668,252	0	4.82	9.8
BANK FUND III TRUST	Oct-92	20,000,000	15,000,000	15,758,070	526,900	5,000,000	3.87	2.7
BLACKSTONE PARTNERS II	Nov-93	50,000,000	14,549,808	12,526,567	1,243,188	35,450,192	-10.35	1.6
BRINSON	May-88	5,000,000	5,000,000	2,521,659	5,007,922	0	9.99	7.1
BRINSON II	Nov-90	20,000,000	15,800,000	10,412,206	14,012,051	4,200,000	23.37	4.6
CHURCHILL CAPITAL PARTNERS II	Oct-92	20,000,000	11,400,000	9,009,391	3,703,568	8,600,000	7.56	2.7
CORAL PARTNERS I SUPERIOR	Jun-86	7,160,972	7,011,923	4,240,477	4,685,814	149,049	4.84	9.0
CORAL PARTNERS II	Jul-90	10,000,000	8,000,000	9,223,811	1,579,857	2,000,000	4.11	4.9
CORAL PARTNERS IV	Jul-94	15,000,000	3,769,110	3,956,279	0	11,230,890	8.98	0.9
DSV	Apr-85	10,000,000	10,000,000	9,465,746	3,571,961	0	2.97	10.2
FIRST CENTURY	Dec-84	10,000,000	10,000,000	8,034,349	6,451,276	0	8.02	10.5
GOLDER THOMA III	Oct-87	14,000,000	13,375,000	11,074,986	14,486,100	625,000	18.65	7.7
GOLDER THOMA IV	Jan-94	20,000,000	9,700,000	10,399,898	0	10,300,000	9.70	1.4
HELLMAN & FRIEDMAN III	Sep-94	40,000,000	2,190,239	2,190,239	0	37,809,761	0.00	0.8
IAI VENTURES I	Mar-91	1,222,828	1,057,744	572,446	669,137	165,084	9.61	4.3
IMR PARTNERSHIP	Aug-92	15,000,000	1,374,900	994,924	38,997	13,625,100	-14.75	2.9
INMAN BOWMAN	Jun-85	7,500,000	7,500,000	3,960,339	4,186,054	0	1.23	10.1
KKR I	Jun-84	25,000,000	25,000,000	41,987,341	76,144,595	0	28.97	11.1
KKR II	Apr-86	18,365,339	18,365,339	63,338,361	44,325,404	0	24.67	9.2
KKR III	Nov-87	145,950,000	145,950,000	217,728,343	121,265,168	0	10.27	7.6
KKR IV	Dec-93	150,000,000	62,541,949	55,512,442	5,922,324	87,458,051	-4.21	1.5
MATRIX II	Aug-85	10,000,000	10,000,000	4,174,656	15,948,066	0	13.27	9.9
MATRIX III	May-90	10,000,000	10,000,000	26,415,806	17,106,661	0	66.78	5.2
NORTHWEST	Jan-84	10,000,000	10,000,000	1,891,543	11,132,900	0	3.70	11.5
SUMMIT I	Dec-84	10,000,000	10,000,000	1,370,434	18,514,588	0	13.03	10.5
SUMMIT II	May-88	30,000,000	28,500,000	14,667,859	46,333,542	1,500,000	27.44	7.1
T. ROWE PRICE	Nov-87	78,953,726	78,953,726	31,379,044	46,978,887	0	-1.09	7.6
WARBURG PINCUS	Dec-94	50,000,000	6,000,000	5,921,106	59,750	44,000,000	-0.60	0.5
ZELL/CHILMARK	Jul-90	30,000,000	25,573,248	33,948,874	4,110,233	4,426,752	9.01	5.0
TOTAL VENTURE CAPITAL		838,152,865	571,612,986	615,561,241	471,673,195	266,539,879		
RESOURCES								
AMGO I	Sep-81	15,000,000	15,000,000	6,067,908	3,614,536	0	-4.13	13.8
AMGO II	Feb-83	7,000,000	7,000,000	7,032,458	2,325,453	0	3.18	12.4
AMGO IV	May-88	12,300,000	12,300,000	16,587,864	6,391,837	0	11.54	7.1
AMGO V	May-90	16,800,000	15,925,203	25,996,675	8,070,231	874,797	17.75	5.2
APACHE III	Dec-86	30,000,000	30,000,000	6,202,082	36,797,428	0	10.34	8.5
MORGAN OIL & GAS	Aug-88	15,000,000	13,799,697	14,350,990	1,664,933	1,200,303	1.40	6.8
SIMMONS OFS	Aug-91	17,000,000	13,011,527	12,602,535	838,169	3,988,473	-2.78	3.9
SIMMONS OFS II	Jul-95	25,000,000	0	0	0	25,000,000	N/M	0.0
TOTAL RESOURCES		138,100,000	107,036,427	88,840,512	59,702,587	31,063,573		
TOTAL PORTFOLIO		1,542,651,394	1,152,632,599	1,192,877,799	620,809,189	390,018,795		

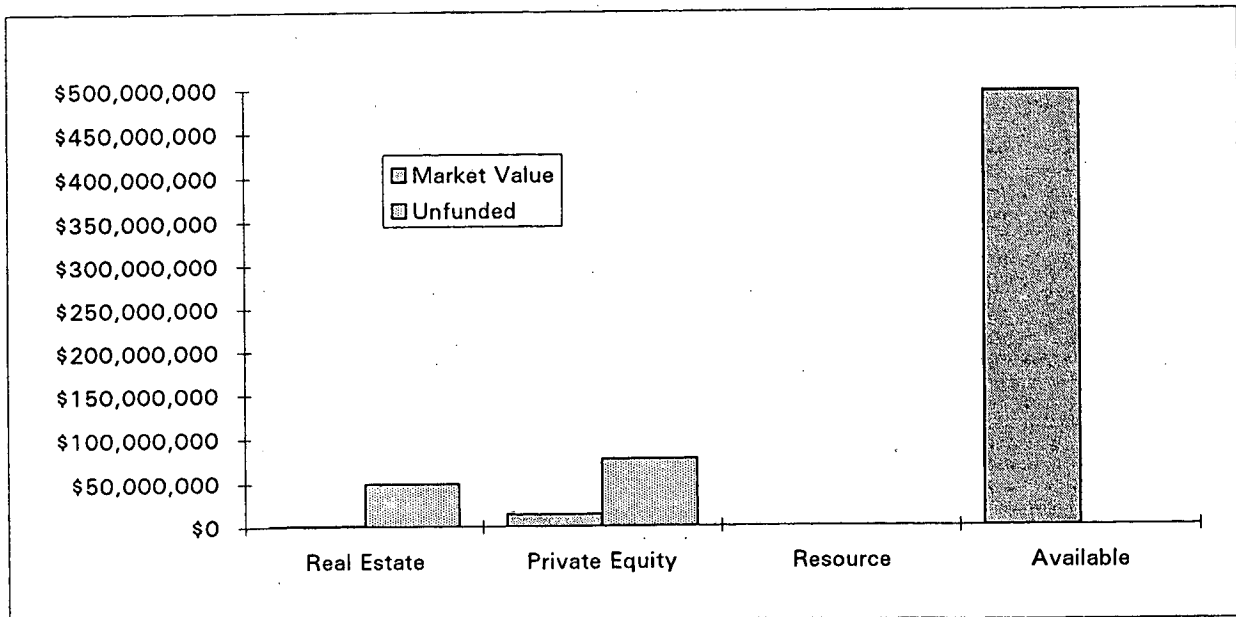
ATTACHMENT B

Minnesota State Board of Investment
Alternative Investments Post Retirement Fund
 June 30, 1995

Market Value of Post Retirement Fund (Post) \$10,216,176,115
 Amount Available For Investment \$496,231,263

	<i>Current Level</i>	<i>Target Level</i>	<i>Difference</i>
Market Value	\$14,577,543	\$510,808,806	\$496,231,263
MV + Unfunded	\$140,427,606	\$1,021,617,612	\$881,190,006

Asset Class	Market Value	Unfunded Commitment	Total
Real estate	\$671,676 0.0%	\$49,328,324 0.4%	\$50,000,000 0.4%
Private Equity	\$13,905,867 0.1%	\$76,521,739 0.7%	\$90,427,606 0.8%
Resource	\$0 0.0%	\$0 0.0%	\$0 0.0%
Total	\$14,577,543 0.1%	\$125,850,063 1.1%	\$140,427,606 1.3%



ATTACHMENT B (con't)

STATE OF MINNESOTA
ALTERNATIVE INVESTMENTS - POST FUND
June 30, 1995

	INCEPTION DATE	TOTAL COMMITMENT	FUNDED COMMITMENT	MARKET VALUE	DISTRIBUTIONS	UNFUNDED COMMITMENT	IRR (%)	PERIOD (YEARS)
REAL ESTATE								
CB COMMERCIAL MTG FUND II	Jul-95	10,000,000	0	0	0	10,000,000	N/M	0.0
COLONY INVESTORS II	Dec-94	40,000,000	671,676	671,676	0	39,328,324	N/M	0.2
<i>TOTAL REAL ESTATE</i>		<i>50,000,000</i>	<i>671,676</i>	<i>671,676</i>	<i>0</i>	<i>49,328,324</i>		
PRIVATE EQUITY								
CITICORP MEZZANINE	Dec-94	40,000,000	8,799,803	8,966,970	214,258	36,521,739	12.82	0.5
KLEINWORT BENSON	Jul-95	25,000,000	0	0	0	25,000,000	N/M	0.0
SUMMIT SUB-DEBT FUND	Mar-94	20,000,000	5,000,000	4,938,897	2,462,820	15,000,000	31.63	1.2
<i>TOTAL VENTURE CAPITAL</i>		<i>85,000,000</i>	<i>13,799,803</i>	<i>13,905,867</i>	<i>2,677,078</i>	<i>76,521,739</i>		
RESOURCES								
<i>TOTAL RESOURCES</i>		<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>		
<i>TOTAL PORTFOLIO</i>		<i>135,000,000</i>	<i>14,471,479</i>	<i>14,577,543</i>	<i>2,677,078</i>	<i>125,850,063</i>		

ATTACHMENT C

ANNUAL REVIEW SUMMARY ZELL/MERRILL LYNCH August 8, 1995

MANAGER REPRESENTATIVES: Steve Quazzo, Don Phillips,
Scott Whitney

SBI ASSETS UNDER MANAGEMENT: \$78,810,400 (6/30/95)

BACKGROUND AND DESCRIPTION:

The Zell/Merrill Lynch Real Estate Opportunity partnership Funds II and III were formed in November 1991 and January 1994, with \$430 million and \$682 million of investor commitments, respectively. Fund II and III terminate in the years 2010 and 2015, respectively. Sam Zell and his affiliate, Equity Financial and Management Company (Zell/Equity), have primary investment responsibility for the funds. Merrill Lynch has an oversight role. The SBI's investment commitment is \$50 million to each of Funds II and III. At this time, Fund II is fully invested and Fund III is expected to be fully invested by year end. The investment strategy of Zell/Merrill Lynch II and III is to make investments in opportunistic real estate situations, generally at prices below replacement cost.

QUALITATIVE EVALUATION:

Fund II was fully invested in December 1993. Fund II currently has investments in 24 office buildings, three apartments complexes and one shopping center which is currently under redevelopment. Overall, Fund II is operating as originally expected and ultimate annualized internal rates of return are expected to be in excess of 15%. Fund II was appraised as of 12/31/94 at a value approximately 40% above its capital investment.

Fund III currently has investments in 13 office properties and 2 parking facilities. Deal flow for Fund III is excellent and the Fund is expected to be fully invested by year end 1995. Currently, all properties are being valued at cost and an appraisal will be conducted on the third anniversary of the closing (March 1997).

Fund IV is in the early capital-raising stage and will pursue the same opportunistic real estate investment strategy as past funds. Staff have potential exit strategies for the Funds' include combining the Funds' office properties and bringing the resulting portfolio to the marketplace via a public REIT.

ATTACHMENT C (con't)

**ZELL/MERRILL LYNCH QUANTITATIVE EVALUATION
(6/30/95)**

	FUND II	FUND III
COMMITMENT:	\$50,000,000	\$50,000,000
FUNDED COMMITMENT:	\$40,388,854	\$23,076,000
MARKET VALUE OF FUNDED COMMITMENT:	\$55,386,500	\$23,423,900
CASH DISTRIBUTIONS:	\$1,713,084	\$388,406
INCEPTION DATE(S):	November 1991	January 1994
INTERNAL RATE OF RETURN (IRR): (annualized, since inception)	16.86%	4.44%

DIVERSIFICATION PROFILE

Fund II

Office	86%	(24 properties)
Retail	3%	(1 property)
Apartment	<u>11%</u>	(3 properties)
	100%	

Fund III

Office	68%	(13 properties)
Pending Office	21%	(4 properties)
Parking Facilities	<u>11%</u>	(2 properties)
	100%	

ATTACHMENT D

**ANNUAL REVIEW SUMMARY
ZELL/CHILMARK
August 8, 1994**

MANAGER REPRESENTATIVES: Steve Quazzo, Don Phillips,
Scott Whitney

SBI ASSETS UNDER MANAGEMENT: \$33,948,874 (6/30/95)

BACKGROUND AND DESCRIPTION:

The Zell/Chilmark Fund was formed in July 1990 by Sam Zell and David Schulte with \$1.0 billion in total investor commitments. The investment strategy of Zell/Chilmark is to invest in corporate restructuring and rejuvenation situations. Sam Zell is Chairman of the Board of Equity Financial and Management Company, a Chicago-based entity founded in 1968, which is involved in corporate and real estate investments typically in countercyclical, financially distressed and undervalued situations. David Schulte formed Chilmark Partners, a merchant banking partnership specializing in corporate turnarounds, in June 1984. The SBI's investment commitment to the Zell/Chilmark Fund is \$30 million. Presently, the Fund is close to being fully funded and will pursue opportunistic exit strategies as they arise. The Fund has a 10 year term.

QUALITATIVE EVALUATION:

Broadway Stores (formerly Carter Hawley Hale) is the Fund's largest investment. The original investment was valued at \$10.49 per share. Broadway has 83 department stores, 90% being in California. Broadway's operations have suffered significantly over the last year. As of June 30, 1995, the general partner valued the investment at \$5.70 per share. After the end of the quarter, Federated Department Stores agreed to buy Broadway with shares of Federated stock. Based on Federated's share price in August 1995, the transaction would generate \$7.94 per Broadway share. The transaction will be finalized in October 1995.

Other Fund investments (Revco Drug Stores, Jacor Communications, Scott/Schwinn, Sealy, Midway Airlines, Bell Sports and Quality Food Centers) are performing as expected and have made significant operational progress over the last year. Overall, the fund manager feels that a 20% annualized internal rate of return is achievable over the life of the Fund.

ATTACHMENT D (con't)

**ZELL/CHILMARK QUANTITATIVE EVALUATION
(6/30/95)**

COMMITMENT:	\$30,000,000
FUNDED COMMITMENT:	\$25,573,248
MARKET VALUE OF FUNDED COMMITMENT:	\$33,948,874
CASH DISTRIBUTIONS:	\$4,110,233
INCEPTION DATE:	July 1990
INTERNAL RATE OF RETURN (IRR): (annualized, since inception)	9.01%

**DIVERSIFICATION PROFILE
(Market Value 6/30/95)**

Broadway Stores	12%
Revco, D.S., Inc.	26%
Jacor Communications, Inc.	16%
Scott/Schwinn	4%
Midway Airlines	3%
Bell Sports Corp.	1%
Quality Food Centers, Inc.	2%
Sealy	<u>36%</u>
	100%

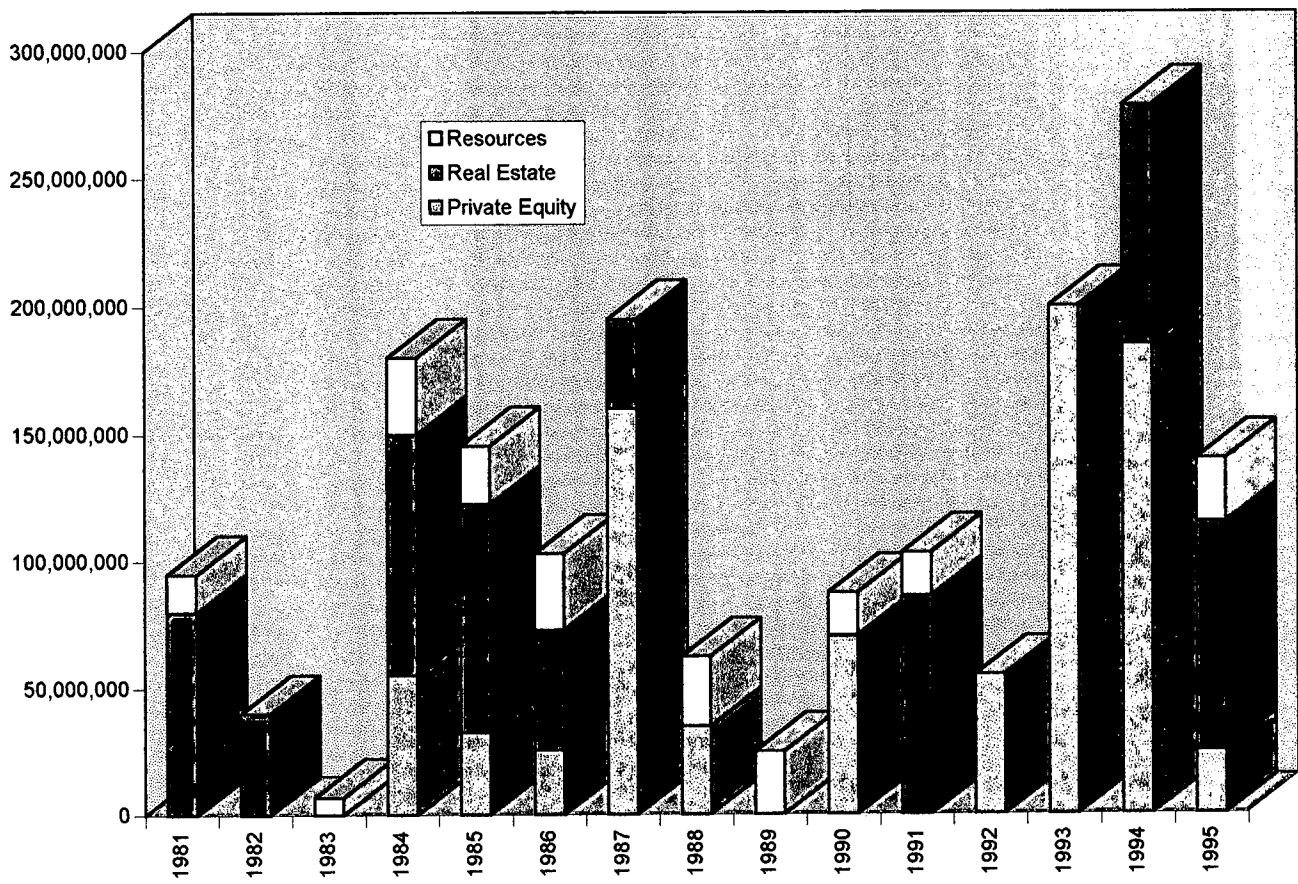
ATTACHMENT E

Minnesota State Board of Investment

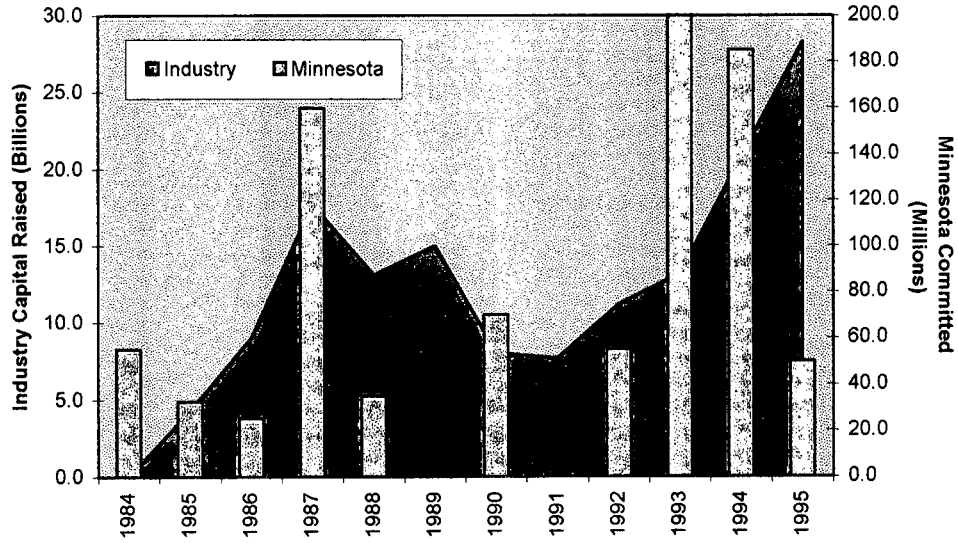
**Alternative Investment Committee Meeting
August 23, 1995**

Strategy Discussion

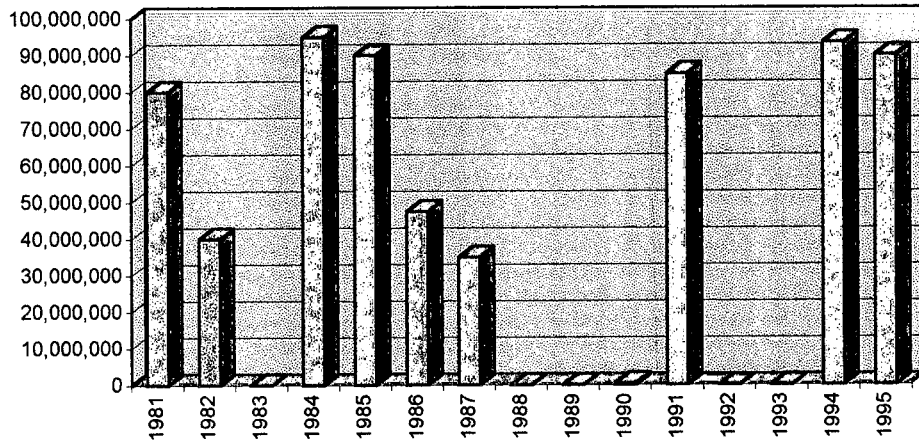
Alternative Investment Commitments



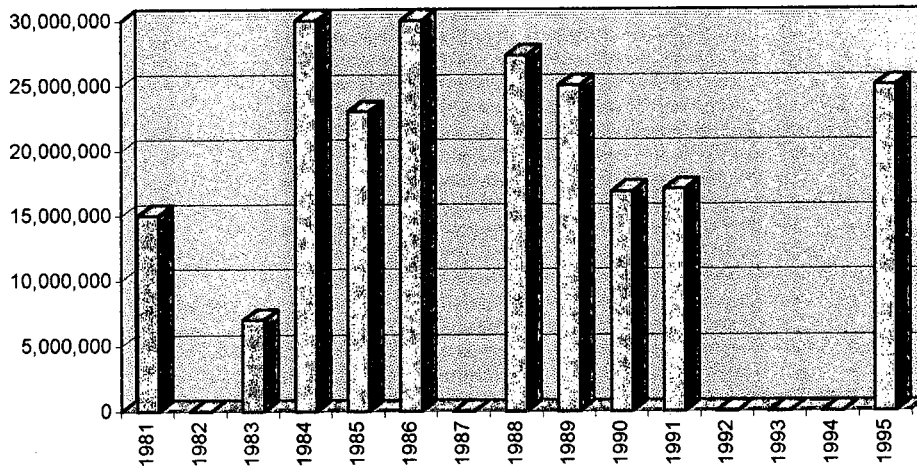
Private Equity Commitments



Real Estate Commitments



Resource Commitments



Minnesota Alternative Investment Program

Alternative Investment Allocation (millions)

<u>Date</u>	<u>Basic*</u>	<u>Post**</u>	<u>Total</u>
Fiscal Yr End 92	\$1,300	\$0	\$1,300
Fiscal Yr End 93	1,500	0	1,500
Fiscal Yr End 94	1,500	400	1,900
<i>Fiscal Yr End 95</i>	<i>1,700</i>	<i>500</i>	<i>2,200</i>
<i>Unused</i>	<i>476</i>	<i>496</i>	<i>972</i>

* 15% Allocation of Basic Funds

** 5% Allocation of Post Fund

Aggregate Portfolio Statistics (6/30/95)

	<u>Commitments</u>	<u>Market Value</u>	<u>Unfunded</u>
Basic Funds	1,543	1,193	390
Post Fund	135	15	126
<i>Total</i>	<i>1,678</i>	<i>1,208</i>	<i>516</i>

Average Age of Commitments (years)

Real Estate	7.3
Private Equity	4.9
Resources	7.9

Alternative Investment Performance

Time Weighted Performance (3/31/95)

<u>Asset Class</u>	<u>1 year</u>	<u>3 year</u>	<u>5 year</u>
Private Equity	4.1%	4.6%	17.0%

Private Equity IRR Performance Sorted by Age (6/30/95)

<u>FUND</u>	<u>TOTAL</u> <u>COMMITMENT</u>	<u>MARKET</u> <u>VALUE</u>	<u>DISTRIBUTIONS</u>	<u>UNFUNDED</u> <u>COMMITMENT</u>	<u>IRR</u> <u>(%)</u>	<u>PERIOD</u> <u>(YEARS)</u>
NORTHWEST	10,000,000	1,891,543	11,132,900	0	3.70	11.5
KKR I	25,000,000	41,987,341	76,144,595	0	28.97	11.1
FIRST CENTURY	10,000,000	8,034,349	6,451,276	0	8.02	10.5
SUMMIT I	10,000,000	1,370,434	18,514,588	0	13.03	10.5
DSV	10,000,000	9,465,746	3,571,961	0	2.97	10.2
INMAN BOWMAN	7,500,000	3,960,339	4,186,054	0	1.23	10.1
MATRIX II	10,000,000	4,174,656	15,948,066	0	13.27	9.9
ALLIED	5,000,000	2,884,045	3,668,252	0	4.82	9.8
KKR II	18,365,339	63,338,361	44,325,404	0	24.67	9.2
CORAL PARTNERS I SUPERIOR	7,160,972	4,240,477	4,685,814	149,049	4.84	9.0
GOLDER THOMA III	14,000,000	11,074,986	14,486,100	625,000	18.65	7.7
T. ROWE PRICE	78,953,726	31,379,044	46,978,887	0	-1.09	7.6
KKR III	145,950,000	217,728,343	121,265,168	0	10.27	7.6
BRINSON	5,000,000	2,521,659	5,007,922	0	9.99	7.1
SUMMIT II	30,000,000	14,667,859	46,333,542	1,500,000	27.44	7.1
MATRIX III	10,000,000	26,415,806	17,106,661	0	66.78	5.2
ZELL/CHILMARK	30,000,000	33,948,874	4,110,233	4,426,752	9.01	5.0
CORAL PARTNERS II	10,000,000	9,223,811	1,579,857	2,000,000	4.11	4.9
BRINSON II	20,000,000	10,412,206	14,012,051	4,200,000	23.37	4.6
IAI VENTURES I	1,222,828	572,446	669,137	165,084	9.61	4.3
IMR PARTNERSHIP	15,000,000	994,924	38,997	13,625,100	-14.75	2.9
BANK FUND III TRUST	20,000,000	15,758,070	526,900	5,000,000	3.87	2.7
CHURCHILL CAPITAL II	20,000,000	9,009,391	3,703,568	8,600,000	7.56	2.7
BLACKSTONE PARTNERS II	50,000,000	12,526,567	1,243,188	35,450,192	-10.35	1.6
KKR IV	150,000,000	55,512,442	5,922,324	87,458,051	-4.21	1.5
GOLDER THOMA IV	20,000,000	10,399,898	0	10,300,000	9.70	1.4
SUMMIT SUB-DEBT FUND	20,000,000	4,938,897	2,462,820	15,000,000	31.63	1.2
CORAL PARTNERS IV	15,000,000	3,956,279	0	11,230,890	8.96	0.9
HELLMAN & FRIEDMAN III	40,000,000	2,190,239	0	37,809,761	0.00	0.8
WARBURG PINCUS	50,000,000	5,921,106	59,750	44,000,000	-0.60	0.5
CITICORP MEZZANINE	40,000,000	8,966,970	214,258	36,521,739	12.82	0.5
KLEINWORT BENSON	25,000,000	0	0	25,000,000	N/M	0.0

Alternative Investment Performance

Time Weighted Performance (3/31/95)

<u>Asset Class</u>	<u>1 year</u>	<u>3 year</u>	<u>5 year</u>
Real Estate	5.7%	-0.8%	-3.1%
Resources	.8%	2.2%	8.3%

Real Estate IRR Performance Sorted by Age (6/30/95)

<u>FUND</u>	<u>TOTAL COMMITMENT</u>	<u>MARKET VALUE</u>	<u>DISTRIBUTIONS</u>	<u>UNFUNDED COMMITMENT</u>	<u>IRR (%)</u>	<u>PERIOD (YEARS)</u>
EQUITABLE	40,000,000	74,538,937	0	0	5.05	13.7
AETNA 007367	40,000,000	65,689,100	0	0	4.21	13.2
RREEF	75,000,000	70,080,976	24,724,012	0	2.93	11.1
HEITMAN I	20,000,000	11,578,484	12,048,213	0	2.54	10.9
TCW III	40,000,000	30,094,182	10,900,073	0	0.31	9.9
AEW III	20,000,000	17,550,784	4,358,101	0	0.97	9.8
HEITMAN II	30,000,000	25,232,030	13,679,267	0	3.64	9.6
AEW IV	17,400,000	4,739,331	829	2,400,000	-12.60	8.8
TCW IV	30,000,000	22,787,931	2,399,405	0	-2.38	8.7
HEITMAN III	20,000,000	13,368,330	7,332,781	0	0.54	8.4
AEW V	15,000,000	9,909,942	1,173,287	0	-4.15	7.5
AMERICAN REPUBLIC	1	1	0	0	0.00	5.4
PAINE WEBBER	500,000	162,475	121,448	0	-11.78	5.4
LASALLE	15,000,000	9,773,608	938,366	5,551,873	5.89	3.8
ZELL/MERRILL LYNCH II	50,000,000	55,386,500	1,713,084	9,611,146	16.86	3.6
HEITMAN V	20,000,000	21,840,523	2,432,900	0	7.11	3.6
ZELL/MERRILL LYNCH III	50,000,000	23,423,900	388,406	26,924,000	4.44	1.4
FIRST ASSET REALTY	907,097	862,626	9,162	0	-3.15	1.2
REALTY ASSOCIATES III	40,000,000	28,012,381	7,214,073	8,600,000	8.35	1.1
AETNA 013420	2,591,431	2,772,331	0	0	8.01	0.7
COLONY INVESTORS II	40,000,000	671,676	0	39,328,324	N/M	0.2
COLONY INVESTORS II	40,000,000	671,676	0	39,328,324	N/M	0.2
CB COMMERCIAL MTG II	10,000,000	0	0	10,000,000	N/M	0.0

Resource IRR Performance Sorted by Age (6/30/95)

<u>FUND</u>	<u>TOTAL COMMITMENT</u>	<u>MARKET VALUE</u>	<u>DISTRIBUTIONS</u>	<u>UNFUNDED COMMITMENT</u>	<u>IRR (%)</u>	<u>PERIOD (YEARS)</u>
AMGO I	15,000,000	6,067,908	3,614,536	0	-4.13	13.8
AMGO II	7,000,000	7,032,458	2,325,453	0	3.18	12.4
APACHE III	30,000,000	6,202,082	36,797,428	0	10.34	8.5
AMGO IV	12,300,000	16,587,864	6,391,837	0	11.54	7.1
MORGAN OIL&GAS	15,000,000	14,350,990	1,664,933	1,200,303	1.40	6.8
AMGO V	16,800,000	25,996,675	8,070,231	874,797	17.75	5.2
SIMMONS OFS	17,000,000	12,602,535	838,169	3,988,473	-2.78	3.9
SIMMONS OFS II	25,000,000	0	0	25,000,000	N/M	0.0

Minnesota Alternative Expectations

Deal Flow Statistics (past 18 months)

<u>Asset Class</u>	<u>Reviewed</u>	<u>Invested</u>	<u>Done</u>
Real Estate	60	4	6.7%
Private Equity	222	7	3.2
Resource	22	1	4.6
Other	58	0	0.0
<i>Total</i>	<i>362</i>	<i>12</i>	<i>3.3%</i>

Alternative Market Status

- Private equity investing is being emphasized by many institutions across the country. Valuations are high and competition for deals is vigorous
- Real estate has begun its recovery from the very depressed markets of the early 1990's
- Oil and gas markets are sluggish due to the depressed level of oil and gas prices

Current Unfunded Commitments (6/30/95-millions)

	<u>Unfunded</u>
Basic Real Estate	92
Basic Private Equity	267
Basic Resources	31
Post Yield Oriented	126
<i>Total</i>	<i>516</i>

Conclusions

- Continue to be selective and disciplined
- Focus on real estate, resources, and specialty private equity

Alternative Investment Process

Allocation Discussion

Advantage of Consistent Allocation to Alternatives

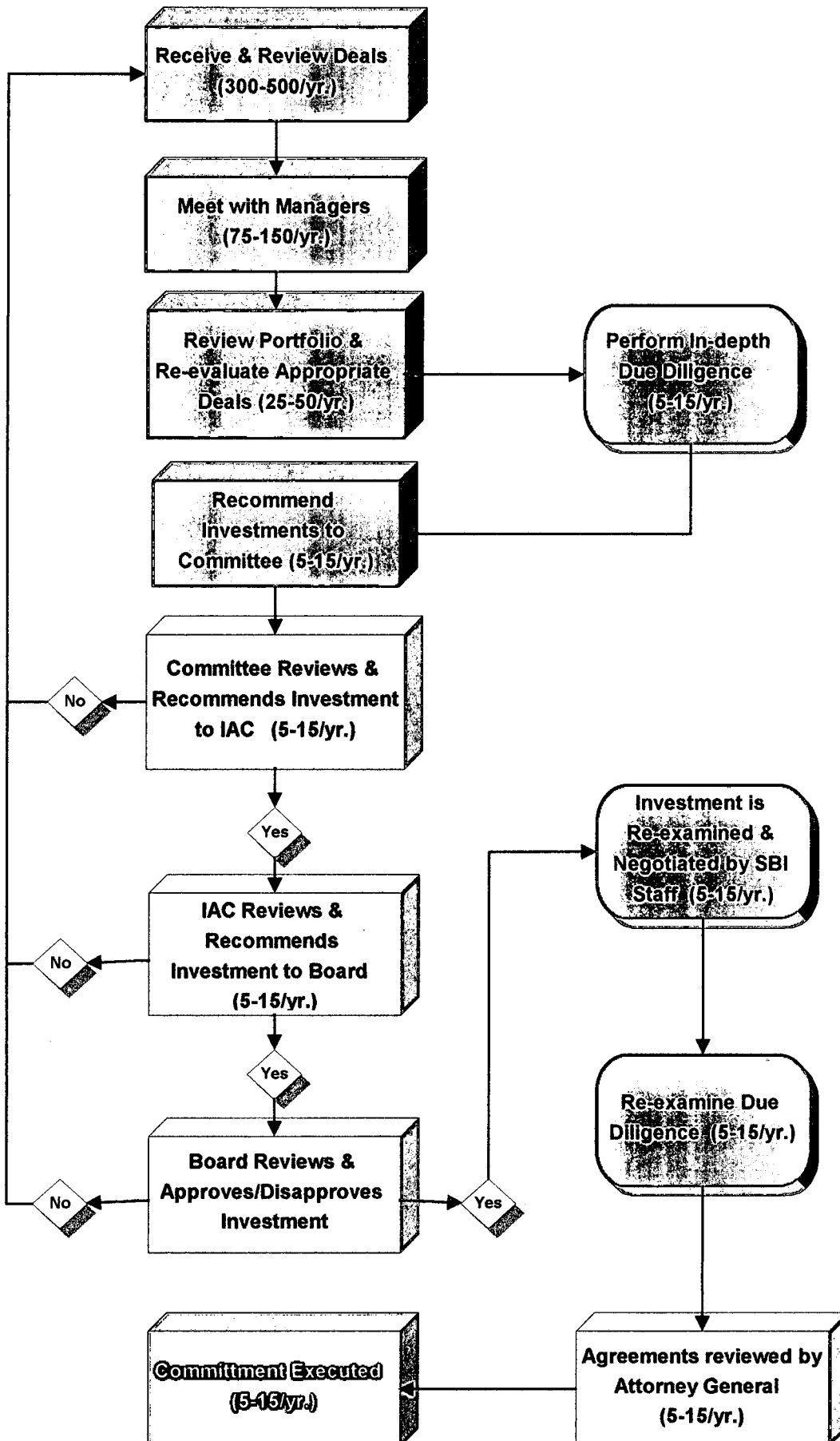
- Provides consistent deal flow
- Creates better investment judgment
- Allows for understanding of market dynamics
- Makes us preferred limited partners sought by best firms
- Allows us to see best deals

Alternative Ways to limit Investment

- Staff discipline
- Within approval process - see next page

MINNESOTA STATE BOARD OF INVESTMENT

Alternative Investment Process



Tab H

COMMITTEE REPORT

DATE: September 18, 1995

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

FROM: **Currency Manager Search Committee**

During the quarter, a currency manager search committee was convened to review the candidate firm recommended by the International Manager Committee as a potential currency overlay manager for the SBI. The members of the Committee were:

<i>Name</i>	<i>Representing</i>
Peter Sausen	Governor Carlson
Chrisite Eller	State Attorney General Humphrey
Jake Manahan	State Treasurer McGrath
Carey Moe	State Auditor Dutcher
Elaine Voss	Secretary of State Growe
Dave Bergstrom	Investment Advisory Council
Laurie Hacking	Investment Advisory Council
Han Chin Liu	Investment Advisory Council
Mike Stutzer	Investment Advisory Council
Debbie Veverka	Investment Advisory Council

As discussed in the International Manager Committee report in Tab F, staff and the IAC have been researching currency management over the last year. While the Board/IAC have not yet adopted a formal position on the use of currency overlay, the International Manager Committee felt it was appropriate to proceed with a review of potential managers. In so doing, the Board would be in a position to act on a recommendation for a specific manager in a timely manner if it chose to proceed with currency overlay management.

The manager recommended as a finalist by the International Manager Committee is Record Treasury Management. Representatives of the firm met with the Search Committee, staff and consultants (Pension Consulting Alliance and Richards & Tierney) on September 12, 1995 at SBI offices.

Record Treasury Management provides currency overlay services to both pension funds and corporate clients. The firm uses a systematic approach to currency management that employs a form of dynamic hedging. Their methodology allows a client to participate in

gains associated with foreign currency appreciation and avoid losses associated with foreign currency depreciation. A short summary of the firm's investment philosophy, methodology, ownership structure and client base is in **Attachment A**. An illustration of their portfolio construction process is in **Attachment B**.

A summary of the firm's performance is in **Attachment C**. It displays the how the firm's methodology would have performed over the last 15 years (Jan. 1980- Jun. 1995) and under three different scenarios (dollar strength, dollar weakness, and dollar flat/choppy) within that longer time period. Over time, the firm expects to add 2 percentage points to an unhedged benchmark such as the one proposed in the staff position paper. However, it must be understood that firm will produce the majority of its value added during periods of dollar strength. In periods when the dollar is weak or moves up and down without a measurable trend, the firm will underperform an unhedged benchmark.

Based on the interview, questionnaire response and supporting information, the Committee voted to recommend that Record Treasury Management be retained by the SBI to manage a currency overlay program under the constraints set forth in the staff position paper on currency management. The Committee notes that this recommendation would be rendered moot if the Board does not approve the use of currency overlay as described in the position paper in Tab F.

RECOMMENDATION:

If the SBI chooses to proceed with a systematic approach to currency overlay management, the Committee recommends that the SBI authorize the Executive Director, with the assistance of SBI legal counsel, to negotiate and execute a contract for currency overlay management with Record Treasury Management, Windsor, England.

ATTACHMENT A

Manager Fact Sheet--Currency Overlay Manager

Record Treasury Management Limited

Firm Inception Date: July 1983 Currency Overlay Inception Date: March 1984

Investment Philosophy

Record Treasury Management (RTM) avoids all forms of forecasting in its approach to currency overlay. Rather, the firm employs a systematic model which uses a form of dynamic hedging. The firm creates a portfolio of synthetic currency options using forward contracts rather than over the counter or exchange traded options. Like traditional options, RTM's "in-house options" allow the client to participate in gains associated with foreign currency strength/appreciation and avoid losses associated with foreign currency weakness/depreciation.

As with all dynamic hedging programs, RTM will tend to sell foreign currency as it weakens and buy it as it strengthens. However, the process used by RTM is not based on the Black-Scholes/Delta hedging model. The Black-Scholes model makes assumptions about the distribution of price changes and other market behavior which RTM questions or rejects. In addition, a Delta hedger typically will carry out one or more trades each day to maintain protection for the underlying portfolio. The RTM process will result in fewer trades (action is taken only when the exchange rate crosses the predetermined strike rate) but each trade likely will be for a larger amount. RTM maintains that this is more efficient than Delta hedging and provides less costly currency protection for the client.

Neil Record developed his model in 1981 when he was working as foreign exchange manager for the UK subsidiary of a US corporation (Mars Inc.). He carried his methodology to RTM in 1983 and the model has remained unchanged since the firm began managing currency exposures for its first client in 1984.

Portfolio Construction

Each currency exposure in the portfolio is split into a number of equal tranches that are monitored and managed independently.

On day 0 a tranche is assigned a "strike rate" which is the forward exchange rate against which all future action will be triggered and measured. The tranche is then assigned a monitoring time and is reviewed at that hour once a day. On day 0 no trades are executed. On any subsequent day, action will be taken only if the dollar has crossed from one side of the strike rate to the other since the previous day's monitoring time. Foreign currency will be sold if the dollar has risen above the established strike rate for that tranche. Likewise, foreign currency will be bought if the dollar falls below the strike rate. At maturity, the value realized is the difference between the spot rate for the currency and the RTM strike rate, less costs to buy/sell the currency during the period.

ATTACHMENT A (con't)

Ownership

Record Treasury Management is 100% owned by NP Record plc, a privately owned financial services group. Neil Record and family own approximately 44% of the shares of NP Record plc. Another 15% is owned by other directors and employees of RTM. The remainder is held by Stonebridge Ltd., Abingworth L.P. and a private trust.

Location and Employees

The primary offices of Record Treasury Management are located in Windsor, England where all management and trading occurs. The firm has another office in London, England which is the main European marketing location for the company. In late 1994, the firm opened a US marketing office in Boston which is staffed with one director of the company.

The company has twenty four employees plus two part time directors. Fourteen of these personnel are considered investment professionals: 6 portfolio managers/marketing personnel, 5 analysts and 4 traders.

Currency Overlay Assets and Clients

On June 30, 1995 RTM managed \$2.7 billion in currency overlay programs in 23 accounts (8 pension plans and 15 corporate clients).

The firm's five largest clients are:

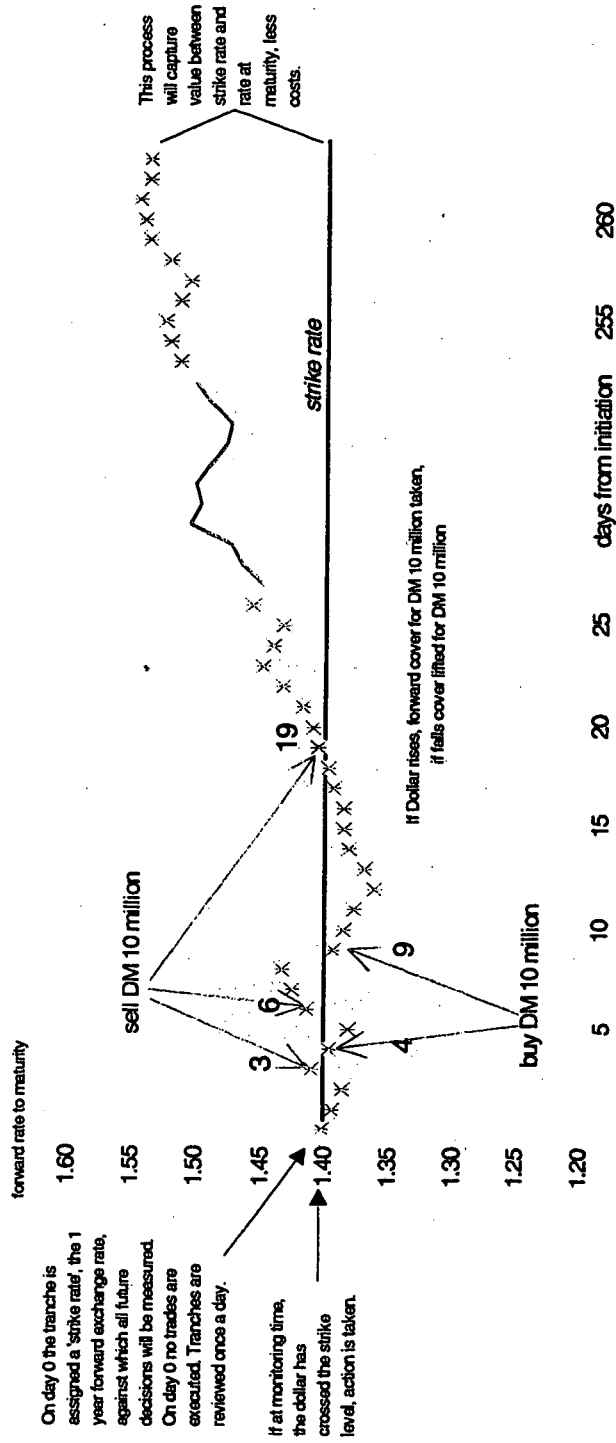
US/UK corporation	\$900 million
US public pension plan	\$700 million (commences 9/95)
European investment holding company	\$700 million
UK corporation	\$250 million
UK corporation	\$200 million

RTM has managed public pension fund overlay in the UK since 1985. In 1994, RTM gained its first ERISA client. In 1995, the firm signed its first US public pension fund.



Creating an in-house option

Example of a DEM 10 million tranche of a DEM 120 million portfolio



Creating an in-house option



ATTACHMENT B (con't)

On maturity value is the difference between spot rate and Record 'strike rate', less costs.

Day	DEM B/S	DEM amount	Contract rate	USD amount	USD cost	% cost
3	Sell	10,000,000	1.4080	7,102,273	40,584	0.57%
4	Buy	10,000,000	1.3950	7,168,459	25,602	0.36%
6	Sell	10,000,000	1.4120	7,082,153	60,704	0.85%
9	Buy	10,000,000	1.3920	7,183,908	41,051	0.57%
19	Sell	10,000,000	1.4040	7,122,507	20,350	0.28%
Total costs					188,291	2.64%

At maturity

260 Buy 10,000,000 1.5400 Gross Profit 649,350 9.09%

ATTACHMENT C

**Summary of Record Treasury Analysis
Comparison of Various Strategies**

Abbreviations used:

ATM- at the money
 OTM- out of the money
 VAM- value added/lost to unhedged benchmark (after costs, before fees)
 St. Dev.- standard deviation

Source for all data is Record Treasury Management.

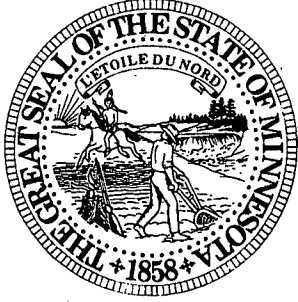
Scenario analyses (dollar strength, dollar weakness, dollar flat/choppy) on following page.
 Delta hedging information provided for comparison purposes only.

	ATM	2% OTM	5% OTM	Delta Hedge
Full Period				
<i>Jan 80-Jun 95</i>				
Average Qtrly.				
VAM	0.51	0.57	0.50	0.24
St. Dev.	±2.52	±2.07	±1.59	±2.24
Annualized				
VAM	2.05	2.28	1.98	0.97
St. Dev.	±5.04	±4.14	±3.18	±4.48
Average Annual				
<i>Cost Over</i>				
<i>Full Period</i>				
	2.78	1.95	1.50	3.59
Cost Range				
<i>Approx. High</i>	4.50	3.00	2.60	4.25
<i>Approx. Low</i>	1.75	1.00	0.10	2.75

ATTACHMENT C (con't)

Scenarios	ATM	2% OTM	5% OTM	Delta Hedge
<i>\$ Strength Jan 80-Feb 85</i>				
Average Qtrly.				
VAM	1.71	1.54	1.16	1.46
St. Dev.	±2.92	±2.50	±1.94	±2.45
Annualized				
VAM	6.84	6.15	4.63	5.84
St. Dev.	±5.83	±4.99	±3.87	±4.90
<i>\$ Strength Jan 88-Mar 90</i>				
Average Qtrly.				
VAM	1.56	1.19	0.74	1.12
St. Dev.	±3.36	±2.90	±2.16	±2.60
Annualized				
VAM	6.25	4.75	2.97	4.49
St. Dev.	±6.71	±5.79	±4.32	±5.21
<i>\$ Weak Mar 85-Dec 87</i>				
Average Qtrly.				
VAM	-0.51	-0.16	0.10	-0.90
St. Dev.	±0.64	±0.45	±0.22	±1.10
Annualized				
VAM	-2.06	-0.66	0.40	-3.60
St. Dev.	±1.29	±0.90	±0.44	±2.19
<i>\$ Weak Jan 94-Jun 95</i>				
Average Qtrly.				
VAM	-0.57	-0.23	0.06	-0.92
St. Dev.	±0.34	±0.38	±0.08	±0.96
Annualized				
VAM	-2.29	-0.91	0.22	-3.68
St. Dev.	±0.67	±0.77	±0.16	±1.92
<i>\$ Flat/Choppy Jun 90-Mar 94</i>				
Average Qtrly.				
VAM	-0.60	-0.29	-0.10	-0.70
St. Dev.	±1.73	±1.23	±0.87	±1.69
Annualized				
VAM	-2.40	-1.16	-0.41	-2.80
St. Dev.	±3.47	±2.45	±1.73	±3.39

Tab I



STATE BOARD OF INVESTMENT

Manager Commentaries

Period Ending June 30, 1995

Domestic Stock Managers	1
Emerging Stock Managers	35
Domestic Bond Managers	53
Assigned Risk Plan	73
International Stock Managers	77

Manager Commentary
Alliance Capital Management L.P.

Period Ending:	6/30/95	Returns	Qtr.	1 Yr.
Total Firm Assets Under Management	\$134.9 Billion	Actual	14.7%	30.1%
Total Firm Assets Managed in this Discipline	\$ 12.5 Billion	Benchmark	10.5%	27.1%

1. *Past Performance. Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?*

For the past quarter, we substantially outperformed our benchmark. The primary reason was the overweight in technology, particularly semiconductor stocks i.e. Intel and Texas Instruments. Also the overweight in financial stocks was a positive as these issues benefited from the stable interest rate environment. Healthcare stocks, which is an equal weight, and media stocks, an overweight, benefited from a better regulatory environment. Our airline position versus the benchmark also contributed with UAL +30% as yields in the industry have improved dramatically. Finally, the underweight we carried in basic industry and autos contributed positively as these stocks began underperforming when investors sensed a weakening economy.

During the fiscal year, we also outperformed the benchmark, again primarily because of technology. Intel, the largest position in the portfolio, was +118%; Microsoft +73%; and Texas Instruments +72%. Also, we were slightly underweighted in healthcare, but specific names did very well - Amgen +85% and Merck +67%. Also, our airline overweighting was a positive for the year. Our overweight in financial and media was a negative but, as I mentioned, these groups were strong performers during the last quarter.

2. *Future Strategy. What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.*

We continue to have a constructive view toward the equity markets. However, as the market continues its upward advance we will begin to take a more cautious approach toward the portfolio. In this regard, we have begun to reduce our technology holdings and increase healthcare and consumer weightings. Our financial overweight continues as we find many companies attractive on a P/E to growth rate basis. The fundamentals in the media industry, i.e. cable, have been strong but investors over the past year have been concerned about a tough regulatory environment. As I mentioned, this has changed and we believe investors will once again be attracted to the group and thus our overweight continues.

Alliance (con't)

3. **Organizational Issues.** *Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

New Accounts

Santa Fe

Northwest Airlines

UBAM-US Equities

Lost Accounts

None

4. **Other Comments.** *Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

None

Staff Comments

No comments at this time.

Manager Commentary
Brinson Partners, Inc.

Period Ending:	6/30/95	Returns	Qtr.	1 Yr.
Total Firm Assets Under Management	\$40.0 Billion	Actual	9.6%	22.0%
Total Firm Assets Managed in this Discipline	\$10.0 Billion	Benchmark	9.0%	24.7%

1. *Past Performance.* Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?

Despite some indications of slowing economic activity, corporate profits and cash flows have remained strong through the second quarter of 1995. Combined with declining long-term interest rates, these elements have helped to raise U.S. equity prices to record high levels during the first half of 1995. During both the second quarter and twelve months ending in June, the portfolio benefited from an overweight in stocks with high earnings/price and book/price measures, an overweight in liquid stocks and an underweight in momentum stocks. Positive returns to these exposures were partially offset during both of these periods by an underweight with respect to the size measure, as larger capitalization stocks have continued to outperform smaller capitalization stocks.

Industry weightings added the largest increment to portfolio performance during the second quarter and year ending in June. During the second quarter of 1995, positive returns from relative overweights in the aerospace, tobacco, oil service and paper sectors and from underweights in traditional telephone and energy reserves more than offset negative contributions from our relative overweights in railroads, insurance and metals and underweight in business machines. For the twelve months ending in June, portfolio performance benefited from overweights in aerospace, drugs, electronics, paper and aluminum and from underweights in autos and traditional telephones. Positive returns to these exposures more than offset negative returns to underweights in the business machine and media sectors and an overweight in steel. Due in part to strong industry effects, stock selection has detracted from portfolio performance during both the second quarter and for the year ending in June. Holdings which contributed to negative stock selection during the second quarter included RJR Nabisco, Cooper Industries, Melville, Tenneco, Allergan and Forest Labs.

2. *Future Strategy.* What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.

Our process remains focused on identifying those stocks that are most attractive in price/value terms through intensive individual company analysis, which incorporates strategic themes and industry research. We have a material overweight to the earnings/price factor, in part due to the fact that some of our economically sensitive issues are now reporting strong earnings. In addition, the portfolio currently possesses an overweight of intermediate and small stocks. The portfolio continues to carry a reduced but meaningful exposure to stocks that possess a high degree of economic sensitivity and financial leverage. The relative underperformance of some basic stocks during the last quarter of 1994 and the first half of 1995 has stalled our movement towards a more neutral position here. Finally, the portfolio possesses an important exposure to stocks with high book-to-price ratios and a meaningful negative exposure to relative strength.

Brinson Partners, Inc. (con't)

From an industry perspective we continue to possess an overweight in financial/interest sensitive stocks, comprised of a neutral weight in banks and an overweight in non-bank financials (primarily insurance). A common thread through our holdings in the insurance industry is conservative, focused management and in many cases, a recent change towards stronger management.

The portfolio is underweighted utilities, including both electric utilities and the traditional telephones. We continue to believe that the eventual deregulation of power generation is accelerating competitive pressure from lower cost utility and non-utility generators and will increase the purchasing power of larger power users. Little if any rate relief appears available to utilities and investors remain concerned that utilities will use dividend cuts to manage cash flow problems. Competition will also intensify in the telecommunications industry as regulatory barriers between traditional business lines are blurred and protection diminishes for the traditional regional telephone companies.

We are underweighted in the consumer sector including nondurables, retail/apparel and discretionary spending stocks. The demographic profile of U.S. consumer and the pressures from sustained reduction in labor content in many corporations suggest trend growth in this area will continue to be slightly below that of the general economy. Selected consumer nondurables should perform well under current market conditions while demand for durable goods should peak during 1995. The portfolio also remains overweighted in selected healthcare and drug stocks. The industry faces a longer-term intensification of competition due to the growing power of healthcare consumers. Since we see this trend progressing, all of our healthcare selections are companies which we believe can maintain profitability in a more competitive environment. This position is further supported by the demographics of an aging population and technological advances in previously underserved areas of healthcare.

We are overweighted in transportation primarily through railroads. In general, we believe that secular improvement in railroad industry profitability will continue as regulatory barriers continue to fall. The portfolio is overweight in iron, steel and paper stocks and an underweight in chemicals. Finally, the portfolio is overweighted in service industry stocks reflecting our belief that many companies in the services industry are important beneficiaries of the declining costs of technology and attendant gains in productivity. Key holdings include Citicorp, Honeywell, Lockheed Martin, Pfizer, RJR Nabisco, Schering-Plough and Sprint.

3. *Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

There have been no significant organizational changes and no turnover of our senior investment professionals in this past quarter. In the 2nd quarter of 1995, Brinson Partners gained one U.S. equity client with \$50 million and lost none.

4. *Other Comments. Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

None this quarter.

Staff Comments

No comments at this time.

Manager Commentary
Forstmann-Leff Associates Inc.

Period Ending:	6/30/95	Returns	Qtr.	1 Yr.
Total Firm Assets Under Management	\$2.8 billion	Actual	6.7%	18.3%
Total Firm Assets Managed in this Discipline	\$1.2 billion	Benchmark	8.3%	26.5%

1. *Past Performance. Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?*

Over the quarter, stock selection in the consumer services sector provided the major disappointment in the quarter's return, accounting for almost all of the portfolio's 1.6% lag against the benchmark. Steve Bollenbach, President of Host Marriott Inc., unexpectedly left the company to become CFO at Disney. Though this is a great addition for Disney, the sudden departure of Host's highly regarded corporate strategist left investors with concerns over who would take over. We know the company well, and are confident that the remaining very talented management at Host will continue to execute the strategy outlined by Bollenbach for the company until a successor can be named. However, until a successor to Bollenbach is identified, the investment community will discount this otherwise attractive holding. Although masked by the Host decline, many factors helped to provide a lift to the portfolio. The economically sensitive names, many of the very issues which had hurt us in 1994, continued to advance, particularly in the rails and forest product groups. Our long term holding in Price/Costco Inc. advanced strongly, with share price gaining over 40% since the beginning of the year. The company's business has improved over the past several months, and we are encouraged to see that our expectations for the company are beginning to bear fruit for the SBI.

For the year ending June 30, 1995: The portfolio's actual return trails the benchmark over this twelve month period, as performance is still heavily weighted by the problem returns of the second half of calendar year 1994, discussed in previous correspondence. Though 1995 performance to date is in line with the benchmark, the previous six months have placed a burden on the full period comparison. During that period, our equity strategy weathered a market rotation away from economically sensitive names, following several interest rate increases by the Fed. Our view that the year would see moderate economic growth, with no recession through 1995, led us to focus upon economically sensitive issues including the autos, rails and hotels/motels, among others. Through the first quarter of 1994 the market rewarded this strategy. However, Fed actions began to produce a shift in investor sentiment by the second quarter, as the market moved away from these economically sensitive names toward a more defensive strategy geared to a moderation of economic growth and favoring issues with more predictable albeit lower, earnings growth. Lastly, mid-cap names, traditionally our area of focus, experienced p/e contractions in a market which viewed them as vulnerable to both rising inflation and an economic slowdown.

Although we were correct on our economic and earnings forecasts, this shift produced an environment which, after the first quarter, severely discounted otherwise healthy profits, particularly in the more cyclically oriented segment of the market. Holdings such as our autos and rails were hit hard, and though their earnings met our expectations, significant investor disaffection with these names last year generated negative returns which are heavily weighted in the one year number. Further difficulties were experienced among the retail holdings, such as Price/Costco, Inc. In spite of the consumer's willingness to take on additional debt to finance purchases, the retail environment remained extremely competitive through the end of the year, causing weakness across the group. As noted above, this holding has made

Forstmann (con't)

considerable progress in the first half, contributing with the cyclicals to the quarter's strong advance.

- 2. Future Strategy. What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.*

Going forward, we believe that the middle capitalization segment of the market should begin to outperform the larger issues. Thus far this year the larger companies, many with a significant exposure to foreign earnings, have enjoyed the benefit of a weak dollar. However, an analysis of historical price movements suggests that a straightening dollar has tended to be accompanied by better relative performance in the smaller names. Current valuation comparisons indicate that these smaller names, which have not participated fully in the rally, are trading at more attractive levels than the larger segment of the market. We are focusing more of the portfolio into middle cap names, particularly leading dominant companies with solid fundamentals and assured growth. In an environment of slower economic growth and rate stability, the market should reward such companies with higher price earnings multiples.

Current portfolio sector allocations include an overweight in the consumer area, reflecting specific bottom-up opportunities rather than bullish expectations for consumer expenditures. These opportunities include the hotel/motel area, mentioned in our last letter, where a lack of construction in the full service segment has left suppliers well positioned to boost margins through rate increases. The suppliers of content as well as equipment in the entertainment area also stand to do well, particularly those with the ability to capitalize upon worldwide demand. Selected global consumer brand names fill out the sector allocation. In the energy area we have recently taken positions down to a market weight, as gains on shorter term price increases did materialize as expected. We anticipate that we may re-enter the sector down the road, as the longer term prospects for further advances are good, but near term we have re-deployed assets to take advantage of other opportunities. We are trimming an overweight in the technology sector, which though quite profitable in the first half, promises less attractive gains going forward. Like the consumer names, holdings in the health care area reflect an eclectic, bottom-up selection rather than a strategic sector allocation. In the industrial/cyclical area we have concentrated in the paper and forest product names, where pricing strength and capacity levels remain favorable. Going forward, we may rotate into other commodity groups, and are carefully monitoring the metals, among others.

- 3. Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

There were no accounts gained or lost in this discipline over the last quarter. There have been no significant ownership or personnel changes to the report during the period. However, the firm has decided to replace its most junior research analyst. Candidates are under review.

- 4. Other Comments. Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

Staff Comments

Staff has recommended that Forstmann be re-interviewed by a special committee. This action will take place in August 1995 at which time a recommendation will be made to continue (re-hire) or terminated the firm.

Manager Commentary
Franklin Portfolio Associates Trust
Active Account

Period Ending:	6/30/95	Returns	Qtr.	1 Yr.
Total Firm Assets Under Management	\$7.7 Billion	Actual	8.2%	23.5%
Total Firm Assets Managed in this Discipline	\$440 Million	Benchmark	8.7%	24.7%

1. ***Past Performance.** Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?*

Last Quarter's Performance:

For the quarter, the account lagged the benchmark with a total return of 8.2% compared to 8.7%. For the same period, the S&P 500 produced a return of 9.5%. According to the performance attribution analysis, stock selection, particularly in June, was a negative contributor to active return. Industry exposures and risk-index exposures were positive contributors. Factor and Industry contributions represent the combination of the average bets made relative to the benchmark and the performance of these factors/industries. Stocks which were weak performers were Humana Inc., Brunswick Corp., Digital Equipment, Federal Express, and Phillips Petroleum. Some of the stronger holdings were Texas Instruments, EMC Corp., Micron Technology, IBP Inc., and Office Depot.

The positive risk factor bets which helped performance were the E/P and Variability-in-Markets (a measure of portfolio volatility relative to the benchmark) factors. These two factors contributed an estimated 37 basis points to the active return. Noteworthy is the fact that the E/P factor, which is a low p/e growth bet typically associated with a value strategy, worked well even in an environment where high p/e growth stocks were market leaders. A positive bet on the Success factor (a measure of past relative strength) was a negative contributor with an estimated contribution of -19 basis points. Positive industry bets which contributed to performance were Food Stores, Foods, Paper, Electronics and Banks. The estimated contribution of these groups was 126 basis. Under-weighted industries which had a negative impact on performance were: Services, Beverage, Producer Goods, Photography, and Mortgage Finance. The combination of the underweighting and the strong performance of these industries resulted in an estimated performance shortfall of 70 basis points.

Twelve Month Performance:

For the past twelve months, the portfolio lagged the benchmark 23.5% versus 24.7%. As in the second quarter, stock specific bets were negative contributors to performance. Industry and risk factor exposures were positive contributors. The two risk factors with the largest contribution to performance were positive bets in Variability-in-Markets and E/P, contributing an estimated 107 basis points to return. A positive bet on the Success factor had a negative 78 basis points impact. Industry bets which worked were: positive bets in food stores, drugs and foods. Underweighting of producer goods, health care, and telephones hurt performance.

Franklin (con't)

2. *Future Strategy. What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.*

As of June 30, 1995, the following significant active bets existed in the account relative to the benchmark:

- A. Factor bets (bets stated as standard deviation from benchmark):

Success = 0.15 Earnings/Price = 0.19

- B. Industry bets (bets stated as percentage deviation from benchmark weight):

5 Most Positive Bets:		5 Most Negative Bets:	
Food	3.33%	Services	-3.14%
Gas Utilities	2.43	Misc. Finance	-2.62
Producer Goods	2.25	Retail	-1.24
Paper	1.75	Apparel, Textile	-1.23
Publishing	1.72	Electric Utilities	-1.19

- C. Ten largest Stock bets (bets stated as percentage deviation from benchmark weight):

Micron Technology	2.54%	American General	2.17%
EMC Corp.	2.29	Merck & Co.	2.11
Unicom Corp.	2.26	Halliburton Co.	2.10
Textron Inc.	2.18	Humana Inc.	2.06
Union Camp Corp.	2.18	Exxon Corp.	2.02

All active bets in the portfolio are based on two factors - (a) the rank of individual issues as computed by Franklin's valuation system, and (b) the impact of each issue on overall "tracking error" or risk of the total portfolio relative to the benchmark. The portfolio construction objective is to obtain as high a rank as possible consistent with the residual risk (tracking error relative to the benchmark) objective. We attempt to maintain a total tracking error of approximately 3% to 3.5% relative to the benchmark with the tracking error resulting from stock bets being better than 70%. As a result of the stock selection bets, the portfolio acquires the factor and industry bets as described above. As of quarter-end, the forecast total tracking error for the portfolio was 3.20% with 91% of the tracking coming from stock specific risk.

3. *Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

There were no significant personnel or organizational changes at the firm since the last quarter. No accounts were gained or lost in this discipline during the period.

4. *Other Comments. Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

We have recently installed a global cross-country risk model from Quantec which will augment our current risk analysis technology.

Staff Comments

No comments at this time.

**Manager Commentary
GeoCapital Corporation**

Period Ending:	6/30/95	Returns	Qtr.	1 Yr.
Total Firm Assets Under Management	\$1.6 Billion	Actual	6.6%	22.2%
Total Firm Assets Managed in this Discipline	\$1.6 Billion	Benchmark	4.9%	32.6%

1. *Past Performance. Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?*

GeoCapital had good performance in the second quarter of 1995 generating higher returns than the benchmark. As discussed in our previous manager commentary, our cash position at 3/31/95 was 12.5% and at 6/30/95 we have reduced the cash to 6.4% as some new names were added and older positions were increased. Consumer non durables was the major sector that aided our relative performance. On an absolute basis, technology and financial stocks also performed well. Good performance in the education area during the period included Apollo, Devry, Learning Company, and Minnesota Education. Also doing well were Parametric Technology, Teradyne and Avid in the technology area. Mercury Finance and Riverwood did well in special situations. A strong outlook for earnings helped these stocks. Foundation Health, Coastal Physicians and Quantum Health did not perform well because of concern for health care legislation.

GeoCapital underperformed the benchmark for the last 12 months due, in part, to the benchmark's holdings of very small cap, illiquid names in the semi-conductor, biotechnology and other areas that GeoCapital does not invest in. Over the past year, steps have been taken to gradually improve the quality of the benchmark by reducing the number of names in the benchmark that are not an investment option for the portfolio.

For the year ending 6/30/95, the consumer non durables sector is still the most negative in value added but improved markedly in the quarter ended 6/30/95. Technology, financial, trading and other categories also provided a negative impact in value added during the 12 months ended 6/30/95.

2. *Future Strategy. What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.*

We continue to add to our technology holdings as short term product transition delays give us more attractive prices in order to buy. The financial, health care services area and computer software area continue to consolidate and represent attractive investment industries. We plan to continue to invest our cash position cautiously as the market presents us with reasonable valuations for our favored stocks.

GeoCapital (con't)

3. **Organizational Issues.** *Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

No change in personnel.

This quarter we lost one account in this discipline to a global manager and one because of a new state administration. We added a number of smaller accounts in this discipline.

4. **Other Comments.** *Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

Our activity has continued to increase during 1995 as we restructure and refresh the SBI portfolio since we are very positive for small cap stocks in 1995 and 1996.

Our belief that the small capitalization sector is particularly attractive is based on the following factors:

- 1) Reasonable relative valuations;
 - 2) Focus on growth issues;
 - 3) Increased merger and acquisition activity;
 - 4) A possible cut in the capital gains tax rate.
- 1) Both the Value Line P/E ratio and the T. Rowe Price New Horizons relative P/E are at historically low levels compared to prior small cap bullish periods.
 - 2) During a low interest, low inflation, period smaller companies can show higher rates of growth. These companies exhibit unit growth through product introductions and are not dependent on price increases. Investors are willing to pay higher valuations for growth.
 - 3) Merger and acquisition activity is accelerating on all fronts as companies attempt to expand product offerings and market presence through the buy process rather than in house development. This cycle has taken hold in technology, healthcare and many other areas of investment opportunity. We believe we are just in the beginning of a major new phase of consolidation in the computer industry. We think this trend is being fueled by the scarcity of good software companies and the liquidity that cost conscious managers have generated in the industry. We expect to keep adding to our exposure in this dynamic growth market.
 - 4) By taxing income and dividends at a higher rate than long term capital gains, the government is compensating taxpayers to take risk. Improving that relationship by lowering capital gains rates would significantly enhance equity values of smaller growth companies.

Staff Comments

No comments at this time.

Manager Commentary
Investment Advisers, Inc.

Period Ending:	6/30/95	Returns	Qtr.	1 Yr.
Total Firm Assets Under Management	\$15.0 Billion	Actual	8.3%	24.7%
Total Firm Assets Managed in this Discipline	\$ 759 Million	Benchmark	8.1%	25.4%

1. *Past Performance. Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?*

For the quarter ended June 30, 1995, the portfolio was up 8.3% versus benchmark performance of 8.1%. On a pure stock basis, the portfolio was up 9.9% in the 2nd quarter.

The active bets put in place continued to help performance. Specifically, we have mentioned our preference for the production side (capital goods) of the economy in the past. Our overweighting of process industries and producer manufacturer stocks combined to be the best drivers of performance. This occurred in spite of the mediocre performance of these sectors in the benchmark. Our stock selection has worked.

The two areas of underperformance were transportation and consumer durables. In transportation, our weighting was in line with the benchmark, but we favored rails over airlines and truckers. Our rail stocks did well, but could not match the strength of the airline sector. In consumer durables, we were slightly overweighted and the sector did not perform. Our weighting was generated on a stock-by-stock basis and we still like our positions in this sector.

For the year ended June 30, 1995, the portfolio slightly underperformed the benchmark. The underperformance all occurred in the March 1995 quarter where our cash position was the main culprit.

2. *Future Strategy. What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.*

We have not significantly deviated from our on-going themes. We continue to emphasize capital goods over the consumer area. We have cut our weighting in the consumer nondurable sector as valuations reached our targets. Aside from these two relative bets, we are maintaining relatively neutral sector positions relative to the benchmark.

There continue to be specific relative bets at the industry level. We are underweighted in banks, favoring life insurance as a defense theme in finance. We favor rails in the transportation industry. We are skewing our medical products weightings toward some attractive small cap stocks in the Twin Cities. None of these bets will show up at the sector analysis level.

IAI (con't)

3. *Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

During the 2nd quarter, there were no significant personnel changes at IAI. We are actively searching for an analyst to work in the Regional area and expect to have the position filled by year end 1995.

No accounts were gained or lost in this discipline during the quarter.

4. *Other Comments. Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

We are pleased with the new benchmark. This quarter was the first in which our performance was measured against this benchmark. We feel it better represents the universe in which we invest and will provide a better measure of our value added and the investment opportunity in our region.

Staff Comments

IAI's rolling five year return has trailed its benchmark for four consecutive quarters. Under the Manager Continuation Policy, this requires the Domestic Manager Committee to review the firm and determine what further action, if any, is warranted at this time. Staff conducted an on-site review of the firm in June 1995. The finding of this review along with other information has been forwarded to the Domestic Manager Committee for their review at their meeting in August. At this time, staff does not believe further action is warranted for the following reasons:

- 1) The firm's investment process for this discipline has not changed. The additional personnel now working with the portfolio manager are expected to strengthen the process.
- 2) This discipline has been retained by the SBI for a short period of time (since July 1993).
- 3) IAI recently implemented a revised benchmark that better reflects this discipline. If the new benchmark had been available in prior periods, performance relative to it would have appeared materially better.

Manager Commentary
IDS Advisory Group, Inc.

Period Ending:	6/30/95	Returns	Qtr.	1 Yr.
Total Firm Assets Under Management	\$21.7 Billion	Actual	9.9%	21.4%
Total Firm Assets Managed in this Discipline	\$ 5.6 Billion	Benchmark	10.4%	26.8%

1. *Past Performance.* Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?

Performance over the latest three months has been mixed. The account has slightly outperformed the S&P 500 but trailed the rate of return generated by the normal portfolio. Over the latest 12 months, the account has trailed both the index and the normal portfolio.

	<u>Latest 3 Months</u>	<u>Latest 12 Months</u>
Total Account	9.9	21.4
S&P 500	9.6	26.1
Normal Portfolio	10.4	26.8

Over the latest 12 months, value added relative to the normal portfolio has been a -5.4%. More than 200 basis points of negative performance was attributed to sector selection with cash reducing returns by approximately 100 basis points. Negative stock selection as well as trading accounted for the bulk of the remainder of underperformance. The month of September was a particularly poor month with value added at -220 basis points. The entire cyclical sector of the market significantly underperformed the benchmark, and our heavy weightings in the basic industrial and consumer cyclical areas resulted in poor performance.

During the quarter, value added was -0.54%. The cash effect was a -0.58%. Sector and stock selection neither added nor subtracted from performance. Over the most recent three months, we have been significantly underweighted in the technology sector relative to the normal portfolio. While this negatively impacted performance, the stocks we did hold within this sector were outstanding performers. The portfolio has also been underweighted in the consumer cyclical area which has had a positive impact. Unfortunately, our stock selection in this area has been poor. Financial services has been significantly overweighted during the quarter, and stock selection has been excellent. The impact of performance of all other sectors has not been significant.

2. *Future Strategy.* What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.

Our sector weights are as follows:

	06/30/94	06/30/95	Normal Portfolio 06/30/95
Technology	13.5	8.9	15.5
Consumer Stable	5.9	17.9	24.9
Consumer Cyclical	24.8	11.6	15.8
Utilities (non Electric)	1.5	6.1	6.7
Financial Services	16.4	15.9	8.9
Energy	7.2	9.1	6.4
Industrial Basic	15.1	5.7	5.6
Industrial Growth	4.3	5.4	3.9

IDS Advisory Group, Inc. (cont'd)

	06/30/94	06/30/95	Normal Portfolio 06/30/95
Industrial Cyclical	11.2	6.8	7.3
Equity Cash	<u>0.1</u>	<u>12.6</u>	<u>5.0</u>
	100.0	100.0	100.0

We remain cautious regarding the outlook for common stocks. While American Express Financial Advisors believes that the economic framework is positive for financial assets, market valuations appear extended. With the market selling at 16x 1996 earnings, yielding 2.5%, and selling 4x book value, there is little room for error. The market is overbought, having advanced almost 30% since the second half of November 1994. In our opinion, a correction of 10-15% seems likely. In light of our views, we are currently maintaining a cash position of approximately 10-12%. We have reduced technology positions reflecting the outstanding performance of this sector. We are not bearish on technology and expect to once again be building positions in this sector once the market corrects. Over the last 12 months, we significantly increased our weighting in the consumer stable area. It is our belief that this sector will perform well in an environment of sluggish earnings growth. We do not intend to increase weightings further in this sector. Weightings in the financial sector are being reduced after the recent outstanding performance of many bank, insurance and financial intermediary securities. It would appear that the recent decline in interest rates is fully priced into many securities in this sector. Assets freed by the sale of technology and financial issues are being redeployed in more cyclical sectors of the market. It is our belief that this area of the market represents great value, and that investors will begin to move to the cyclicals as they anticipate stronger economic growth in the second half of 1996 and throughout 1997.

3. *Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

There have been no ownership or personnel changes at IDS Equity Advisors in the last quarter.

Second Quarter 1995

Product	Gains		Losses	
	# of Accounts	Assets (\$MM)	# of Accounts	Assets (\$MM)
Large Cap Equities	4	111.27	2	72.3
Fixed income	1	11.2	0	0
Balanced	3	20.42	1	25.5
International	0	0	1	52.2
Regional - Pacific	1	2.7	0	0
Global Ex-Australia	1	5.9	0	0
Latin America	1	47.0	0	0

4. *Other Comments. Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

None at this time.

Staff Comments

No comments at this time.

Manager Commentary
Independence Investment Associates

Period Ending:	6/30/95	Returns	Qtr.	1 Yr.
Total Firm Assets Under Management	\$18.8 Billion	Actual	9.7%	22.5%
Total Firm Assets Managed in this Discipline	\$ 9.8 Billion	Benchmark	9.6%	26.1%

1. *Past Performance. Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?*

The financial markets started the year with a bang and the second quarter of 1995 did not disappoint with investment returns again very strong in this period. The Minnesota portfolio outperformed the stock markets solid second quarter advance. Year to date, your returns have been a robust 20.17%. Returns on technology stocks once again proved to be a strong contributor to overall market performance. The demand for personal computers and the increased electronic content in virtually all manufactured products have been the driving force behind the strength in this sector. Financial stocks were also top performers this quarter due to lower interest rates and the markets perception that the Federal Reserve Board would reduce rates in the near future. In addition, many healthcare issues outperformed, reflecting strong unit volume growth and the currency translation stimulus to earnings growth. For the second quarter of 1995, the best performing stocks in your portfolio included technology issues such as Texas Instruments, Hewlett Packard, and Intel. Financial stocks like Citicorp, Chemical Bank, and Fleet Financial as well as some of the drug/healthcare companies (Amgen, Schering Plough and Merck) did well. Other large holdings which performed well were Philip Morris and IBM. Energy stocks like Phillips Petroleum and Chevron lagged this quarter as did telephone issues like AT&T and NYNEX and retail stocks like Dayton-Hudson and Home Depot.

Major purchases during the quarter included IBM, Dean Witter Discover, and Intel, while Applied Materials, Ford and Chrysler were eliminated. As always, turnover is incurred in your portfolio only to eliminate unattractive securities, increase the overall valuation level, maintain risk characteristics or to raise or reinvest cash.

It should be noted that the 12 month return lags the market since it includes the second and third quarters of 1994. In our previous reports we discussed the very disappointing third quarter of 1994, in which performance lagged because the valuation approach which drives our process did not work, particularly during September & October. This is an unusual occurrence and the performance of the model did stabilize in November and actually outperformed in December.

2. *Future Strategy. What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.*

The S&P 500's Price to Earnings ratio (the P/E) is a traditional valuation measure used to gauge whether the stock market is undervalued, overvalued or fairly priced. Over the last twenty five years, the market P/E has ranged from below 7x in 1979 to a high of over 25x in 1991. Given a current P/E ratio of approximately 15.9x - right in the middle of the historical range - the stock market appears fairly valued. And although equities produced healthy returns of over 20% in the first half of 1995, due to strong earnings growth the market P/E ratio has not moved up significantly since its beginning of the year 14.4x level. Importantly, the outlook for corporate profits remains quite positive despite signs of a weakening economy. The focus

Independence (con't)

of our disciplined investment process continues to remain on adding value through individual stock selection using our investment philosophy of investing in those companies exhibiting "cheapness and improving fundamentals". These characteristics that are reflected in your portfolio by the low P/E of 12.7x relative to S&P 500's P/E of 15.9x and the long term growth rate of 9.3% relative to the S&P 500's long term growth of 7.0%. Your portfolio continues to be highly diversified with 116 stocks and managed with strict risk control, as measured by a beta of 1.00 and an R-squared of 0.981 relative to the benchmark.

3. *Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

We are pleased to announce that Independence now manages the following five institutional mutual funds:

John Hancock Independence Diversified Core Equity Fund II
John Hancock Independence Value Fund
John Hancock Independence Growth Fund
John Hancock Independence Medium Capitalization Fund
John Hancock Independence Balanced Fund.

These funds are managed in the same style used in many of our existing portfolios. The funds were created for smaller defined benefit plans that do not meet Independence's minimum account size and for sponsors looking for mutual fund options for their defined contribution plans. Independence is the sub-advisor of these mutual funds on behalf of John Hancock Advisors, Inc., and the funds will be distributed through a John Hancock affiliated broker dealer.

4. *Other Comments. Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

None.

Staff Comments

No comments at this time.

Manager Commentary
Jundt Associates, Inc.

Period Ending:	6/30/95	Returns	Qtr.	1 Yr.
Total Firm Assets Under Management	\$3.6 Billion	Actual	6.1%	26.2%
Total Firm Assets Managed in this Discipline	\$2.8 Billion	Benchmark	11.2%	32.9%

1. ***Past Performance.** Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?*

Quarter: The quarter's very negative return compared to the benchmark primarily occurred in the month of April, i.e. April's actual return of -3.49% versus +2.56% for the benchmark. Since then, the actual portfolio has risen 10.14% compared to a benchmark return of 8.40%. Our absolute results were adversely affected by several companies reporting surprising negative earnings results as well as by fear of disappointment in the HMO sector. Since then, the HMO's have generally recovered nicely. In terms of our relative performance, while the technology sector was correctly overweighted, the composition of our names versus the benchmark differs considerably. The benchmark has had significant investments in semiconductors and in suppliers to that industry, which over time has proven to be "boom or bust" industry. Nonetheless, reflecting current economic strength of the past 3 years, these stocks have been rising steadily, in some cases doubling on a year-to-date basis. While this industry possesses good secular growth aspects, earnings and stock prices have been very cyclical. With the current investor frenzy for these issues, we believe a contrary position is prudent.

Twelve Months: For the 12 months ended June 30, the underperformance was 6.7% according to the Richard's & Tierney analysis. Over 75% of that underperformance occurred in the technology sector, reflecting again the observation made about the most recent quarter.

2. ***Future Strategy.** What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.*

We enter the second half of 1995 optimistic about the market longer term but concerned about nearer term trends. While the same relative "bets" are being made in technology and consumer non-durables, our cash position has risen to nearly 22%. We feel the market, certain industries, and stocks have become quite extended. According to Merrill Lynch, with the gains during the first 6 months of this year, this is the longest period in 25 years in which the market has not had a 3% reaction and extends the longest period in the century in which there has not been a 10% decline. Additionally, historically when we have had a 15% rise over a 6 month period, the subsequent 6 months have recorded fairly modest gains at best. Thus we are looking for weakness to add to selective positions already owned or for new names of which we might be able to take advantage during sharp breaks in the price of the stocks.

Jundt (con't)

3. *Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

None to report.

4. *Other Comments. Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

We feel very confident about the fundamental outlook for the companies in your portfolio, but the market's current frenzy, especially in technology stocks, necessitates holding above normal reserves to take advantage of group volatility.

Staff Comments

No comments at this time.

Manager Commentary
Lincoln Capital Management Company

Period Ending:	6/30/95	Returns	Qtr.	1 Yr.
Total Firm Assets Under Management	\$31.3 Billion	Actual	11.1%	30.7%
Total Firm Assets Managed in this Discipline	\$10.2 Billion	Benchmark	9.6%	29.5%

1. ***Past Performance.** Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?*

During the past quarter, your active portfolio outperformed the benchmark by 150 basis points. Our analytics suggest that there was negative sector allocation impact which was fully offset (and then some) by stock selection. Overweightings in capital goods, outsourcers (computer services), and retail as well as an underweighting in software were negative contributors. Excellent issue selection in healthcare, consumer non-durables, pure technology (Cisco Systems, Hewlett-Packard, Intel), and finance (Freddie Mac and Fannie Mae) was the dominant factor in the outperformance for the quarter.

Over the last year, the portfolio outperformed the benchmark by 120 basis points. The sector allocation impact was neutral as an overweighting in consumer non-durables (productive) offset an underweighting in the strong health care sector. Superior stock selection in consumer non-durables, finance, health care and "pure" technology issues was the primary reason for the outperformance of the active portfolio.

2. ***Future Strategy.** What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.*

As always, your Lincoln portfolio is built bottom-up by specific stock selection. Currently, there's an overweighting in consumer staples, specifically global leadership companies which can access the superior growth of real GDP and disposable personal income in many foreign economies. The underweighting in health care is focused in medical supplies (P/E's a bit rich for our disciplines) and services (price competition eroding margins).

Lincoln (con't)

3. *Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

Ted Bosler, Lincoln's equity analyst in the light manufacturing and consumer services areas, retired. We expect to announce his replacement shortly.

During the second quarter, one balanced fund and one equity relationship were lost to outsourcing arrangements. In the case of the equity account, Lincoln was retained as a manager on the outsourcer's team.

4. *Other Comments. Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

None.

Staff Comments

No comments at this time.

Manager Commentary
Lynch & Mayer, Inc.

Period Ending:	6/30/95	Returns	Qtr.	Year
Total Firm Assets Under Management	\$6.4 Billion	Actual	8.5%	23.0%
Total Firm Assets Managed in this Discipline	\$2.4 Billion	Benchmark	15.0%	34.8%

1. *Past Performance. Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?*

Performance is summarized above. Significant over- and underweighted average sector results for the quarter and trailing one year were:

Sector		Portfolio Weighting	Portfolio Results	Benchmark Weighting	Benchmark Results	Value Added
Technology	2nd Q	29.8%	16.7%	39.4%	27.5%	-3.8%
	1-Yr.	31.5	51.6	31.9	69.1	-4.1
Consumer Non Durables	2nd Q	36.4%	1.4%	28.6%	4.6%	-1.9%
	1-Yr.	30.2	24.3	30.8	27.4	-2.0
Financial	2nd Q	9.3%	17.9%	9.6%	14.7%	+0.2%
	1-Yr.	10.6	25.9	9.3	21.3	+0.1
Capital Goods	2nd Q	5.5%	5.4%	3.2%	14.5%	-0.5%
	1-Yr.	8.5	10.8	4.3	33.1	-1.4

Sector bets during the last quarter were negative mainly due to the benchmark's nearly 40% weighting in technology issues, and the overall strong performance of this sector and our institutional diversification guidelines which preclude a heavier weighting in this sector. Sector bets during the trailing one year were neutral. Stock selection relative to the benchmark was negative for the quarter and trailing one year, mainly due to the strong performance of the technology sectors and the individual issues within the benchmark. Many of the technology issues in the benchmark are small capitalization issues that are heavily weighted in the benchmark. These issues are unsuitable as significant positions in our Large Cap portfolios due to volatility, small market capitalization, trading volume or a combination of these characteristics.

Stocks in your portfolio that did particularly well during the quarter were Intel (+49%), Citicorp (+36%), Hewlett-Packard (+24%), Oracle System (+24%), Nokia (+23%) and Motorola (+23%). Holdings that did not perform well during the quarter were US Healthcare and Humana both of which reported earnings shortfalls due to higher than expected medical costs. Further, Home Depot underperformed as the outlook for most housing-related consumer stocks worsened during the quarter.

2. *Future Strategy. What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.*

Our bottom-up investment philosophy of purchasing stocks of companies in the midst of positive fundamental change has resulted in the following sector bets relative to the benchmark:

- a) Overweighting in the consumer non-durables and financial sectors.
- b) Underweighting in the technology, consumer durables and transportation sectors.

Lynch & Mayer (cont'd)

The top ten holdings as of June 30, 1995 relative to the benchmark are:

Company	Rationale for Investment	Portfolio Weight	Benchmark Weight
Citicorp	Turnaround	4.1	0.9
Gillette	Acceleration of Growth	3.9	0.3
McDonald's	Acceleration of Growth	3.6	0.4
Coca Cola	Acceleration of Growth	3.6	0.8
Procter & Gamble	Corp. Restr./Accel of Growth	3.5	0.3
Schlumberger	Improved Industry Environment	3.5	0.2
Johnson & Johnson	Acceleration of Growth	3.3	0.4
Pfizer	Acceleration of Growth	3.2	0.3
First Data Corp.	Acceleration of Growth	3.1	0.2
Browning Ferris	Acceleration of Growth	<u>2.9</u>	<u>0.1</u>
Total		34.7	3.9

Our investment philosophy hinges on the premise that earnings growth significantly above historical trend or consensus expectation invariably is preceded by a critical positive fundamental change. We search intensively for early indications of such change and group purchase candidates into four categories by source of earnings increase. The categories are: acceleration of growth; improving industry environment; corporate restructuring; and "turnaround" situations.

3. *Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

There were no ownership or personnel changes during the second quarter.

Accounts Gained Second Quarter, 1995 (tax-exempt):

University of North Carolina - Foundation Equity Securities - Large Cap

Accounts Lost Second Quarter, 1995 (tax-exempt):

Randolph-Macon Woman's College - Combined Cap (Short term performance)

4. *Other Comments. Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

We continue to be disappointed with your portfolio's performance relative to the benchmark. The benchmark return of 15.0% for the recent quarter was in the top one percentile of all 649 equity investment managers as measured by Indata; the year-to-date benchmark return of 25.1% was also in the top one percentile of this universe. This extraordinarily demanding performance target continues to lead us to believe that the benchmark construction process may be inappropriate.

Staff Comments

Lynch & Mayer will be re-interviewed by a special committee in August which will result in a recommendation to terminate or continue the firm. In regard to comments about their benchmark, the manager has the opportunity to add and/or delete specific securities in the benchmark, as well as adjust security and industry weightings prior to the start of the quarter. Staff's annual analysis of Lynch & Mayer's benchmark showed that it provided a better measure by which to evaluate the manager than does the market. Of the seven benchmark tests conducted by staff, six of them produced results indicating that the benchmark was a very good one. Only one, the turnover of names in the portfolio, was not within staff's expectations and by itself would not indicate a benchmark quality issue of statistical significance.

Manager Commentary
Oppenheimer Capital

Period Ending:	6/30/95	Returns	Qtr.	1 Yr.
Total Firm Assets Under Management	\$35.5 Billion	Actual	11.1%	27.9%
Total Firm Assets Managed in this Discipline	\$15.7 Billion	Benchmark	8.0%	22.3%

1. *Past Performance. Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?*

QUARTER ENDED JUNE 30, 1995

Our best performing stocks in the quarter were in the technology sector. Nokia (+63%), based in Helsinki, Finland, produces wireless communication equipment and cellular phones. Intel (+49%) is well known for its dominate market share (85%) of the worldwide microprocessor market. Arrow Electronics (+18%) is the largest distributor of semi-conductors and shareholders have benefited by the astute acquisitions on a global basis.

The substantial holdings in financial services companies such as Citicorp (+36%), Exel Ltd. (+18%), Morgan Stanley (+21%) and Federal Home Loan Mortgage Corp., (+14%) Travelers (+14%), and AIG (+10%), contributed to our outperformance during the quarter. Investments made in these companies during the past few years were not an interest rate play but were based on exceptional opportunities in terms of high returns on capital combined with reasonable valuations. Quite simply, we thought financial stocks were cheap. The market now appears to have agreed with that assessment.

ONE YEAR ENDED JUNE 30, 1995

The key factor contributing to the outperformance of the benchmark during the past year was stock selection within the finance, material and services and technology sectors. Relative to our benchmark, the overweighting financial companies further improved performance. McDonnell Douglas (+99%), our largest holding, continues to restructure their defense and commercial airlines businesses while generating substantial free cash flow. The top ten contributors to return during the past twelve months are listed below:

McDonnell Douglas	99.5%	Pfizer	43.3%
Intel	98.5	Citicorp	42.3
Nokia	62.9	Hercules	39.3
Morgan Stanley Group	46.2	Exel	39.0
Becton Dickinson	44.8	American International Group	32.0

2. *Future Strategy. What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets*

We continue to emphasize investment in companies which generate substantial free cash flow and use this cash to create value for shareholders. These companies create value by investing in operations, making astute acquisitions, or returning capital to shareholders through dividend payments or the repurchase of shares. In the stock market today, many companies with the cash flow characteristics we like are buying back their shares thereby increasing the inherent value of the shares that continue to be outstanding. Some portfolio companies that are benefiting from significant share repurchase programs include Avon Products, Becton Dickinson, Champion International, Citicorp, McDonnell Douglas, Monsanto, Tenneco and Transamerica.

Oppenheimer (con't)

Despite their considerable price advance in the first half of 1995, we believe the financial stocks in the portfolio are still undervalued and the commitment to the holdings in this sector continues.

Further, we focus on companies where something internal and within the company's control—such as an aggressive cost reduction program or a change in corporate strategy could provide an impetus for earnings improvement, as opposed to being solely dependent on the economy for better earnings results. This theme is exemplified by portfolio holdings such as McDonnell Douglas, Hercules, Monsanto, AMR Corp., Dole, Freeport McMoRan, Lockheed Martin, Nokia, Sprint and Tenneco.

3. *Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

There were no changes to professional staff during the quarter.

ACCOUNTS GAINED/LOST:

Gained:	3 accounts with \$67 million in assets.
Lost:	3 accounts with \$77.8 million in assets.

4. *Other Comments. Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

None

Staff Comments

No comments at this time.

Manager Commentary
Waddell & Reed

Period Ending:	6/30/95	Returns	Qtr.	1 Yr.
Total Firm Assets Under Management	\$19.8 Billion	Actual	10.0%	20.6%
Total Firm Assets Managed in this Discipline	\$ 0.6 Billion	Benchmark	10.1%	26.5%

1. ***Past Performance.** Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?*

Performance for the quarter was roughly in line with the benchmark. Our big cash bet coming into the quarter proved inappropriate when it became clear the Fed would no longer be raising rates. This hurt performance, especially in April. We reinvested cash as the quarter went on, with cash at this writing at about 10% of the portfolio. Stock selection during the period, on the other hand, was quite helpful. Especially important in this regard was our increased emphasis in technology, particularly semiconductor and semiconductor equipment stocks. Our big stock "bets" have been very well rewarded, particularly since May.

<u>Stocks Sold</u>	<u>Positions Increased</u>	<u>New Stocks</u>
Jefferson-Pilot	United Healthcare	Intel
Texas Utilities	GM Hughes	Texas Instruments
Long Island Lighting	Silicon Valley Group	Adobe Systems
Chiron	Motorola	Broderbund
Citicorp	Silicon Graphics	PPG
U.S. Tobacco	MFS Communications	DuPont
Advanced Micro Devices	Applied Materials	International Paper
Sears	LSI Logic	Georgia Pacific
Sybase		Emerson Electric
		Compaq

Over the past year, our returns relative to the benchmark have been disappointing. The shortfall relates to several miscalculations on our part. We overweighted financials, especially brokers, last year. When the bond market fell apart, this proved inappropriate. We also overweighted gold stocks in the Fall of 1994, thinking inflation worries would push them up. This didn't occur. Finally, our cash position late in calendar 1994 and early in 1995 was not helpful. This cash increase came from a reduction in our technology holdings, an area that did well even during the market consolidation in the second half of the year.

2. ***Future Strategy.** What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.*

We are heavily overweighted in technology, especially semiconductors, computer software, and communications equipment and services. Because of several factors, these areas seem to offer well above average growth potential, as follows:

1. The strong yen has severely hindered the Japanese competitive posture in semiconductors. Japanese loss of worldwide share accrues to the benefit of U.S. producers.
2. Semiconductor demand is accelerating because of product cycle trends in existing markets and the opening of new markets.

Waddell (con't)

3. The world's less developed economies are modernizing communications, creating huge new demand, particularly for wireless equipment.
4. Use of PC's is finally finding application in the broad home market because of the Internet/OnLine services; the integration of voice, video and text all on one platform and the emergence of useful software, i.e., Intuit or Broderbund.
5. The convergence of higher PC demand, communications as an important new market, and the pick up in share in a market where growth is accelerating, is causing semiconductor companies to substantially ramp up spending for new manufacturing facilities.

3. *Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

Staff Additions:

Mr. Dean Tenerelli, International Investment Analyst

Staff Resignations:

Mr. Richard Hageman, Fixed Income Investment Analyst, resigned.

We did not gain, nor did we lose, any accounts in the aggressive equity style in the second quarter of 1995.

Overall, the firm gained four new accounts with assets of \$399.2 million and lost three accounts with assets of \$4.9 million in total

4. *Other Comments. Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

We have had no significant issues or events occur in the last quarter that would affect the management of the SBI account.

Staff Comments

Staff has recommended that Waddell & Reed be re-interviewed by a special committee in August 1995. This will result in a recommendation to continue (re-hire) or terminate the firm.

Manager Commentary
Weiss Peck and Greer

Period Ending:	6/30/95	Returns	Qtr.	1 Yr.
Total Firm Assets Under Management	\$12.4 Billion	Actual	9.7%	26.2%
Total Firm Assets Managed in this Discipline	\$ 1.3 Billion	Benchmark	11.8%	34.2%

1. *Past Performance.* Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?

During the second half of 1995 retail issues were depressed, reflecting the market's uncertainty with the economy, particularly with regard to consumer confidence. It was at this time that we began initiating an overweighted position in the retail sector, viewing it as an opportunity to obtain outstanding growth possibilities at very cheap prices. This strategy has paid off for us tremendously, as our retail issues have outpaced the benchmark's by well over 40% for the twelve month period and roughly 7% for the quarter.

Our decision to overweight in the transportation sector has also provided superior returns, as a turn-around in the airline industry has produced returns of over 100% for the twelve months, 51% of which was gained in the second quarter alone.

In technology, our underweighting in semi-conductor and related issues relative to the benchmark cost us performance over the twelve month period. During the quarter, we were hurt by our somewhat premature decision to cut back in stocks that we felt were fully valued as the technology group continued to rally.

Consistent with our methodology, we were early in purchasing some of the healthcare stocks we own, and that has cost us performance for both the twelve months and the quarter. Nonetheless, in our view, healthcare is in a situation similar to the one retailing was in last year, i.e., undervalued with respect to its growth potential, and we expect to see a turn-around in performance for this area.

2. *Future Strategy.* What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.

At this time, we do not intend to make any fundamental changes to the portfolio.

Weiss Peck (con't)

3. *Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

On April 4, 1995, Weiss, Peck & Greer changed its ownership status from a partnership to a limited liability corporation.

4. *Other Comments. Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

None.

Staff Comments

Weiss Peck & Greer's rolling five year return has trailed its benchmark for four consecutive quarters. Under the Manager Continuation Policy, this requires the Domestic Manager Committee review the firm and determine what further action, if any, is warranted at this time. Staff conducted an on-site review of the firm in April 1995. The finding of this review along with other information has been forwarded to the Domestic Manager Committee for their review at their meeting in August. At this time, staff does not believe further action is warranted for the following reasons:

- 1) The firm's investment process and personnel have not changed.
- 2) The firm has improved its monitoring process to better understand how the portfolio performs relative to its benchmark.
- 3) Historically, Weiss Peck & Greer has been a very volatile manager. The firm is likely to produce very large positive or negative value added over shorter periods of time.
- 4) The firm has been retained by the SBI for a short period of time (since July 1993).

Manager Commentary
Franklin Portfolio Associates Trust
Semi-Passive Account

Period Ending:	6/30/95	Returns	Qtr.	YTD
Total Firm Assets Under Management	\$7.7 Billion	Actual	8.2%	17.7%
Total Firm Assets Managed in this Discipline	\$911 Million	Benchmark	8.1%	18.0%

1. ***Past Performance.** Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?*

Last Quarter's Performance:

For the quarter, the account total return of 8.2% just about matched the 8.1% benchmark return. According to the performance attribution analysis, industry and risk factor exposures were positive contributors to active return. Stock selection, particularly in June, was a small negative contributor. Stocks which were especially weak were United Wisconsin Services, Times Mirror, Franklin Quest, Waban Inc., and Kelly Services. Many of these were hurt by investors concerns over a weakening economy. United Wisconsin was hurt by an earnings shortfall due to a poor claims experience and because of increased competitive pressures. Some of the issues which were strong during the period were Money Store Inc., Manville Corp., Cabot Corp., Wescorp., and Citicorp. Many of these winners responded favorably to the improved interest-rate environment during the quarter.

Positive tilts on the E/P, variability-in-markets, trading activity, and B/P risk factors made positive contributions to performance of approximately 33 basis points. A positive tilt on Success and a negative tilt on the Low-cap indicator hurt performance by about 13 basis points. Regarding industry bets, overweighted positions in electric utilities, chemicals, foods, paper, media added value with a contribution of 36 basis points. Underweighting banks, telephones, miscellaneous finance, photography and aerospace cost an estimated 28 basis points.

Year-to-Date Performance:

Since the account started at the beginning of the year, data for a twelve month period is not available. Comments on year-to-date performance follow. Because of a shortfall in the first quarter, year-to-date performance lagged the benchmark -- 17.7% compared to 18.0%. Risk factor and industry differences helped performance and stock specific bets hurt performance. Issues such as United Wisconsin Services, Artco Inc., Smith's Food & Drugs, Franklin Quest, and Times Mirror were issues that hurt performance for the period.

2. ***Future Strategy.** What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.*

As of June 30, 1995, the following significant active bets existed in the account relative to the benchmark:

- A. Factor bets (bets stated as standard deviations from benchmark):
Earnings/Price = 0.11

Franklin (con't)

B. Industry bets (bets stated as percentage deviations from benchmark weight):

5 Most Positive Bets:

Electric Utilities	1.17%
Chemicals	0.96
Other Insurance	0.89
Food	0.79
Paper	0.72

5 Most Negative Bets:

Telephones	-1.14%
Services	-0.79
Railroads	-0.51
Domestic Oils	-0.52
Electronics	-0.44

C. Ten largest Stock bets (bets stated as percentage deviation from benchmark weight):

General Motors	-0.81%	Microsoft Corp.	-0.66%
Ahmanson H F	0.58	Coca Cola Enterpr	0.49
IBP Inc.	0.48	Avnet Inc.	0.47
Sears Roebuck	0.45	Panhandle Eastern	0.44
Bell Atlantic	-0.44	Union Camp Corp	0.44

All active bets in the portfolio are based on two factors - (a) the rank of individual issues as computed by Franklin's valuation system, and (b) the impact of each issue on overall "tracking error" or risk of the total portfolio relative to the benchmark. The portfolio construction objective is to obtain as high a rank as possible consistent with the residual risk (tracking error relative to the benchmark) objective. We attempt to maintain a total tracking error of under 1.5% relative to the benchmark with the tracking error resulting from stock bets being better than 70%. As a result of the stock selection bets, the portfolio acquires the factor and industry bets as described above. As of quarter-end, the forecast total tracking error for the portfolio was 1.08% with 75% of the tracking coming from stock specific risk.

3. *Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

There were no significant personnel or organizational changes at the firm since the last quarter. No accounts were gained or lost in this discipline during the period.

4. *Other Comments. Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

We have recently installed a global cross-country risk model from Quantec which will augment our current risk analysis technology.

Staff Comments

No comments at this time.

Manager Commentary
J.P. Morgan Investment Management, Inc.

Period Ending:	6/30/95	Returns	Qtr.	YTD
Total Firm Assets Under Management	\$129 Billion	Actual	8.5%	18.5%
Total Firm Assets Managed in this Discipline	\$ 5.4 Billion	Benchmark	8.1%	18.0%

1. *Past Performance. Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?*

The Research Enhanced Index (REI) portfolio outperformed its custom benchmark by 40 basis points last quarter, bringing the performance since the inception of the account in January 1995 to plus 50 basis points. The positive performance was attained despite substantial turnover incurred when converting the original portfolio to the REI strategy.

The REI strategy seeks to make bets only where Morgan's research can provide a competitive advantage. Since our strength is fundamental company research, we make stock selection bets relative to the index, while we virtually eliminate style and sector bets.

Last quarter, the REI portfolio's largest overweighted positions included National Services, First Data Corporation, American Home Products, and DuPont. These positions added to return as they rose more than their respective sectors. For example, DuPont enjoyed strong earnings and benefited from the large share repurchase it made from Seagrams.

The largest underweighted positions included Bristol Meyers Squibb, Amoco Corporation, Nynex Corporation, American Express, and Johnson & Johnson. American Express significantly added to return since we were underweighted relative to the benchmark and the stock underperformed other stocks in the finance sector. Nynex also added to return, while Bristol Myers Squibb was neutral, and Johnson & Johnson and Amoco hurt performance.

2. *Future Strategy. What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.*

Since the portfolio's overweighted stocks are still listed in the model's top quintiles, and the underweighted stocks are still in the model's fifth quintile, the active bets described above are still in place. Within each sector, the stocks are ranked by DDR into quintiles. The first quintile or the top 20% consist of the most undervalued stocks, while those in the fifth quintile contain the most overvalued stocks. The REI strategy eliminates fifth quintile stocks, and underweights fourth quintile stocks.

J.P. Morgan (con't)

3. *Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

There were no significant ownership or personnel changes during the last quarter. Two accounts in the discipline were lost during the quarter because of asset allocation changes. We were awarded one new account during the quarter.

4. *Other Comments. Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

None.

Staff Comments

No comments at this time.

Manager Commentary
Wells Fargo Nikko Investment Advisors

Period Ending:	6/30/95	Returns	Qtr.	YTD
Total Firm Assets Under Management	\$183 Billion	Actual	9.3%	19.2%
Total Firm Assets Managed in this Discipline	\$ 4.1 Billion	Benchmark	8.1%	18.0%

1. *Past Performance. Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?*

Wells Fargo Nikko Investment Advisors' Alpha Tilts Strategy, customized for the Minnesota SBI, outperformed the Minnesota Custom Benchmark by 1.2% in the second quarter of 1995, and outperformed by 1.2% on a year-to-date basis (inception date 12/31/94). This strategy systematically evaluates companies according to a broad set of investment characteristics in order to construct a risk-controlled, index-like portfolio with expected returns in excess of the benchmark. The active risk level of the portfolio is generally maintained at 1.0-1.5%; during the second quarter (and year-to-date) the realized active risk was well within this range.

The attribution of added returns for the second quarter is shown in the table below. The portfolio's use of analyst information to identify companies experiencing positive changes in earnings expectations added 0.52% during the quarter. The use of valuation measures to identify stocks trading at attractive prices relative to their underlying economic value contributed 0.20% during this period. These added returns were somewhat offset by negative results associated with stocks exhibiting above-average technical measures, which capture recent price and earnings momentum. As expected, industry weighting differences made only a small contribution to the portfolio's active return 0.26%, due to the tight risk controls we use in this area. Finally, the portfolio experienced positive security-specific returns in the second quarter, representing the idiosyncratic or residual returns of individual companies that cannot be explained by their industry group, style, size or other common characteristics. Over shorter measurement intervals, the returns attributable to security-specific sources can be relatively large in magnitude, but this source of tracking error risk tends to diversify toward zero over longer holding periods. The Alpha Tilts portfolio minimizes this risk through broad diversification (approximately 700 stocks) and by limiting the active positions taken in individual companies.

Active Return Attribution:

	Quarters	YTD
Analyst inputs:	0.52%	0.98%
Fundamental value:	0.20	0.25
Technical inputs:	-0.34	-0.65
Other common factors:	-0.01	0.19
Industry weights:	0.26	0.10
Stock-specific	0.53	0.38
Total active return:	1.16%	1.25%

2. *Future Strategy. What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.*

Wells Fargo Nikko (con't)

The current Minnesota Alpha Tilts portfolio is similar in structure to the second quarter 1995 portfolio. Our investment process seeks to identify companies for which consensus expectations will be improving, by carefully modeling the linkage between changes in analysts' forecasts and future expectations and returns. In addition, we emphasize companies that are trading at multiples (based on earnings and book value) that are below their industry peer group. These areas of emphasis in the portfolio are designed to be relatively consistent over time; we do not make subjective or ad hoc changes to our investment process. The rationale for these bets is based on a combination of economic/investment theory about how markets and investors operate and rigorous empirical testing to validate these ideas and determine the optimal way to incorporate them in highly risk-controlled portfolios. In general, we are seeking to capture systematic return effects that are generally overlooked by traditional investors.

- 3. Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

During the second quarter of 1995, WFNIA announced the signing of a definitive agreement to be acquired by Barclays PLC (UK), forming a new strategic partnership which will provide WFNIA the clear potential to achieve our "global superfirm" strategy. Barclays is one of the world's largest and strongest financial services firms, with over \$250 billion in assets and \$15.8 billion in book equity. The combination of WFNIA and the quantitative management division of BZW will create the largest manager of quantitative assets globally with \$215 billion under management. WFNIA will provide overall management, with headquarters remaining in San Francisco and Fred Grauer continuing in his role as Chairman and CEO of the new firm. The acquisition should not impact your business with us or the relationship you have with WFNIA's key people, who are very supportive of this development.

We added three additional new clients in our Alpha Tilts strategies during the second quarter, with a total funding of approximately \$200 million.

- 4. Other Comments. Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

We plan the addition of a new input to the Alpha Tilts Strategy during the third quarter. This input, which is based on observing corporate financing activities, is the result of an extensive research project begun at WFNIA in 1994. The research demonstrates that firms tend to issue seasoned equity offerings (SEOs) when they believe their stock price to be fairly- or over-valued, and to repurchase shares when they are fairly- or under-value. We have found that corporate financing signals can be used to complement the Expectational inputs currently used in our process. This did not represent a material change to our investment process--and will not impact the risk characteristics of the portfolio--but it does reflect an enhancement to the strategy. As you know, the Alpha Tilts Strategy is supported by an extensive, ongoing research and development effort, which reflects our philosophy of continuous improvement.

Staff Comments

No comments at this time.

Manager Commentary
CIC Asset Management, Inc.

Period Ending:	6/30/95	Returns	Qtr.	Year
Total Firm Assets Under Management	\$180 Million	Actual	7.0%	19.0%
Total Firm Assets Managed in this Discipline	\$180 Million	Benchmark	9.0%	25.4%

1. ***Past Performance.** Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?*

CIC's performance in the second quarter was 7.01% versus 8.96% for the Russell Value index. CIC's underperformance in the second quarter came primarily from our underweighting in technology stocks, which were up 15.95%. We had especially strong individual stock performance from Schering Plough (+18.7%), Pepsico (+16.3%), Caterpillar (+15.3%), Merck (+15.2%), ITT (+14.5%), International Paper (+14.3%), Motorola (+14%) [from average cost]), Household International (+13.8%), Freddie Mac (+13.6%), and PACCAR (+13.5% [to sold price]); two of the top ten performers were new buys during 1995.

During the second quarter we increased our sector weights in technology, basic industries, financial services and utilities while we decreased our weights in consumer durables, consumer non-durables, and capital goods. We established new stock positions in BankAmerica, Mobil, Motorola, PPG Industries, and Sun America. We significantly increased existing positions in Allegheny Power, Allied Signal, American Express, Becton Dickinson, Beneficial, Boston Edison, Dover, Dow Chemical, Freddie Mac, International Paper, Masco, Schering Plough, Texaco, and Union Pacific. We eliminated positions in Banker's Trust, Dun & Bradstreet, Equitable Resources, Exxon, Federal Express, Gannett, General Motors, Goodyear Tire, ITT, J.P. Morgan, Marsh & McLennan, Minnesota Mining and Manufacturing, PNC Bancorp, Paccar, Toys R Us, and USX Steel Group and reduced positions in Campbells Soup, General Electric, JC Penney, Pepsico, and Whirlpool. We continued to reduce the number of stocks in the portfolio from 57 to 46 while cash increased from 3.36% to 4.56%.

Portfolio Construction Table: Industry exposure and cash holdings changed as follows:

Sector	Russell Value 6/30/95	Portfolio 3/31/95	Portfolio 6/30/95
Consumer Durables	6.1%	8.10%	5.27%
Consumer Non-Durables	10.97	25.19	21.50
Technology	5.68	2.67	5.16
Energy	12.64	6.10	6.47
Basic Industries	13.44	12.57	15.42
Cap. Goods Industries	7.94	15.71	12.22
Utilities & Telephones	17.76	8.69	10.35
Financial Services	25.47	17.60	19.04
Cash	0.00	3.36	4.56
TOTAL	100.00%	100.00%	100.00%

CIC Asset Management (con't)

2. *Future Strategy. What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.*

We are underweighted in financials (78% of Russell), energy (51% of Russell) and utility stocks (66%), although we substantially increased our exposure to utilities as they looked increasingly cheap on a relative yield basis to the S&P Industrials. We increased our technology weight by adding Motorola. We also continue to be overweighted in the economically sensitive sectors of the market. We like late cycle capital goods and basic industry stocks that benefit from overseas expansion and the weak dollar. We significantly reduced early cycle cyclicals out of concern for the slowing U.S. economy (the weight is now 73% of Russell).

3. *Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

There are no significant ownership or personnel changes

4. *Other Comments. Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

CIC continues to work with BARRA on the normal portfolio.

Staff Comments

CIC is making progress on the development of its benchmark.

Manager Commentary
Cohen, Klingenstein & Marks Incorporated

Period Ending:	6/30/95	Returns	Qtr.	Year
Total Firm Assets Under Management	\$204 Million	Actual	9.9%	26.1%
Total Firm Assets Managed in this Discipline	\$195 Million	Benchmark	9.5%	26.1%

1. *Past Performance. Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?*

The account increased by 9.9% during the second quarter of 1995 which compares to a 9.5% for the benchmark (S&P 500). Broadly speaking, the account remained aggressive (in the context of the generally conservative large capitalization stocks that we purchased) with overweighting in Growth, Interest-rate sensitive, and Cyclical stocks. Again, broadly speaking, the overweighting in the Cyclicals hurt relative performance a bit while the overweighting in the interest rate sensitive and particularly the technology areas helped. Particular stocks had a impact too. Fruit of the Loom, which was sold during the quarter, was the victim of a continuation of disappointing operating results. This negatively impacted performance as did U.S. Healthcare which fell sharply on fears of margin pressure.

2. *Future Strategy. What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.*

We continue to make the same bets as described in the answer to the first question. Our economic outlook calls for moderate growth (better than consensus), still lower interest rates, unexpectedly strong corporate profits and market volatility. As a result, the portfolio is moderately cyclical, growth oriented and interest rate sensitive. We made a few changes to the portfolio last quarter but they did not change the overall character of the portfolio. Along with Fruit of the Loom, CPC and Cincinnati Milacron were sold. They were replaced with Corestates Financial, Dollar General, and EMC Corp.

Cohen, Klingenstein & Marks (con't)

3. **Organizational Issues.** *Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

There were no significant ownership or personnel changes last quarter.

Accounts Gained	Accounts Lost
Six (approximately \$54 Million)	None

4. **Other Comments.** *Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

None

Staff Comments

Cohen, Klingenstein & Marks is making progress on the development of its benchmark.

Manager Commentary
Compass Capital Management, Inc.

Period Ending:	6/30/95	Returns	Qtr.	Year
Total Firm Assets Under Management	\$191 Million	Actual	7.2%	28.9%
Total Firm Assets Managed in this Discipline	\$ 89 Million	Benchmark	8.7%	24.1%

1. ***Past Performance.** Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?*

Again, the primary driver of investment performance, during the past three and twelve month periods, was being fully invested. Since the inception of the relation, a very small cash position has been held. This has added to investment performance greatly.

<u>Sectors</u>	<u>(Active Bets)</u> <u>Relative to S&P 500</u>	<u>Qtr.</u>	<u>Year</u>
Technology	Equal	Worked	Worked
Consumer Staples	Overweighted	Flat	Worked
Capital Goods	Overweighted	Did Not Work	Did Not Work
Financial	Underweighted	Did Not Work	Worked
Energy	No Position	Worked	Worked
Transportation	No Position	Worked	Worked
Utilities	No Position	Worked	Worked
Basic Industries	Equal	Flat	Did Not Work
Consumer Cyclical	Overweighted	Did Not Work	Did Not Work

Compass' largest bet is in the consumer cyclical sector. This sector has now underperformed the market for both the quarter and twelve months. This underperformance, in this sector is directly tied to consumer spending. However, the consumer staples sector which has a large overweighting has performed quite well over the past twelve months. This outperformance is the outcome of extremely low market valuations, in this sector, a year ago.

2. ***Future Strategy.** What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.*

The largest overweighted active bets are within the Consumer Staples (27.38%) and Consumer Cyclical (29.26%) sectors of the portfolio. The largest underweighted active bets are within the Energy (0%), Utilities (0%) and Financial (4.17%) sectors of the portfolio.

Growth and valuation are the key words at Compass. The retail segment of the consumer cyclical sector has become very attractive based upon valuations to historical norms. This same valuation criteria also apply to the sub-segment of the consumer staples sector; foods and drugs. Both of these sectors, consumer cyclical and staples, of the market have potential for solid growth with the appropriate valuations. The underweighting in energy and utilities is a function of the low growth prospects.

Compass Capital Management (con't)

3. *Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

No significant ownership or personnel changes during the quarter.

No accounts lost.

One foundation gained.

4. *Other Comments. Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

None

Staff Comments

Staff met with Compass Capital during the quarter to review investment strategy, portfolio performance and benchmark development. Compass is making progress on the development of its benchmark. Staff believes there are no concerns at this time.

Manager Commentary
Kennedy Capital Management

Period Ending:	6/30/95	Returns	Qtr.	Year
Total Firm Assets Under Management	\$1,155 Million	Actual	9.0%	16.1%
Total Firm Assets Managed in this Discipline	\$ 850 Million	Benchmark	9.4%	20.1%

1. *Past Performance. Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?*

Kennedy Capital, after underperforming slightly during the first quarter, performed in line with the Russell 2000 during the second quarter. Our investment style of picking stocks that have low institutional ownership and coverage is beginning to help us as many managers are becoming more value conscious as the market becomes more expensive. The weak dollar hurt us relatively during the first quarter and part of the second quarter, but we expect a stabilization in exchange rates going forward. While the primarily-large cap exporting companies benefited during the dollar's drop, this stabilization should help small cap issues outperform large cap issues.

2. *Future Strategy. What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.*

We remain fully invested in equities that are under-owned by institutions and that have good earnings potential, but low market valuations. Our analyst network continues to expand in terms of both number of analysts and coverage of our issues and the difference in valuation between our universe of stocks and that of the S&P 500 continues at the three year high that we reached last quarter. We are still seeing a large number of potential buys and we expect the divergence in valuation to begin to correct in the second half of 1995.

Kennedy Capital Management (con't)

3. *Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

There have been no significant changes in ownership or personnel since the last update. Our staff consists of 21 employees including 6 in portfolio management and trading, 7 in security research and analysis and 8 in client servicing and operations.

No accounts were gained or lost since the last update.

4. *Other Comments. Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

We continue to work with Richards & Tierney toward the creation of a custom normal benchmark for the Minnesota SBI account. A complete listing of the second quarter has been sent to R&T for some analytical work.

Staff Comments

Staff met with Kennedy Capital to review investment strategy, portfolio performance and benchmark development during the quarter. Kennedy Capital is making progress on the development of its benchmark. Staff believes there are no concerns at this time.

Manager Commentary
New Amsterdam Partners L.P.

Period Ending:	6/30/95	Returns	Qtr.	Year
Total Firm Assets Under Management	\$245 Million	Actual	7.1%	20.3%
Total Firm Assets Managed in this Discipline	\$225 Million	Benchmark	7.9%	24.4%

1. ***Past Performance.** Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?*

Our investment style is a logical and structured discipline that may be described as Growth at a Reasonable Price or Relative Value that ranks securities on an expected return rating. Our portfolios look for high expected return stocks with better than average forecast growth and return on equity but lower valuation ratios (P/E and Price/Book). The portfolio has a midcap orientation. Your portfolio meets those characteristics:

June 30, 1995	Minnesota	S&P MidCap	S&P 500
Expected Return	14.1%	9.5%	9.0%
P/E	18.6x	23.5x	16.7x
Price to Book	2.9x	3.1x	3.3x
Yield	1.8%	1.8%	2.5%
Forecast Growth	10.0%	9.0%	6.5%
Return on Equity	17.3%	13.2%	19.4%
Wtd Avg Mkt Cap	\$7.9bn	\$2.1bn	\$26.6bn

In the past three months, large capitalization and low yield stocks were the winners. This is consistent with the strong performance of technology stocks, particularly the bigger companies. P/E appeared to be fairly neutral as did forecast growth. This quarter our stock picking ability was slightly below par as was our sector selection skill. The best performing sectors of the S&P 500 were Electronic Technology and Technology Services, Transportation, Finance and Health Technology. We were market weighted in all of those sectors aside of Finance and Technology Services, we were modestly overweighted. We were however slightly overweighted in Health Services and Consumer Durables and Non-Durables stocks which were among the worst performing sectors of the S&P 500. In the other two poorest performing sectors, Energy Minerals and Non-Energy Minerals, we were underweighted and market weighted respectively.

As far as stock selection was concerned, with the exception of our Non-Energy Minerals, Process Industries, Consumer Non-Durables, Retail Trade, and Transportation picks, our stocks matched or comfortably beat their peers. Our Technology Services stocks did well; Microsoft (+27.1%) and Marshall Industries (+28.9%). Other stocks performing particularly well were Cabletron Systems (+18.7%), Cray Research (+32.7%), Solectron (+16.7%), Superior Industries (+22.8%), Merck (+16.0%), Countrywide Credit (+21.3%) and Pepsico (+16.8%).

New Amsterdam Partners (con't)

Our disappointments this quarter included two retailers: CML (-11.0%) and Lands' End (-7.1%). Apparel manufacturer Fruit of the Loom (-19.5%) also disappointed as a result of slow T-shirt sales. After examining these stocks, however, we have decided to keep holding them, in the belief that the company fundamentals are sound and the stock prices will recover.

2. *Future Strategy. What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.*

At the moment, we continue to maintain an overweighting in the consumer stock area, where a number of high expected return candidates present themselves. We also have a slight tilt towards the finance sector. We are underweighted in the utility area (particularly in telephone stocks), in the energy sector and in producer manufacturing stocks. We remain fully invested in the account and continue to stick to our investment discipline.

3. *Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

There were no significant ownership or personnel changes. One account totaling \$22 million was gained in this discipline this quarter. None were lost.

4. *Other Comments. Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

We are pleased to include data on our customized benchmark which was completed by Richards and Tierney for us early this year.

We continue to be modestly bullish on the equity market since we believe that GDP growth will be in the 2.5 to 3% range and inflation will remain in the 3 to 3.5% range. We believe that interest rates will stay around current levels and that long run corporation profit growth will be around 6.5 to 7% per year.

Staff Comments

Staff met with New Amsterdam to review investment strategy and portfolio performance during the quarter. New Amsterdam has completed the development of its benchmark. Staff believes there are no concerns at this time.

Manager Commentary
Valenzuela Capital Management, Inc.

Period Ending:	6/30/95	Returns	Qtr.	Year
Total Firm Assets Under Management	\$1.0 Billion	Actual	5.9%	15.5%
Total Firm Assets Managed in this Discipline	\$1.0 Billion	Benchmark	9.5%	26.1%

1. *Past Performance.* Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why

Under our "bottom up" style, each stock pick is an active bet. Gains were made throughout the portfolio, with the largest contribution to performance from McDonnell Douglas (adding +1.21%), Student Loan Marketing Association (+1.02%), and Precision Castparts (+0.73%). McDonnell Douglas and Precision Castparts are benefiting from signs of improvement in the commercial aircraft market. Sallie Mae has had positive response to corporate restructuring. Our risk-averse philosophy generally leads us away from the technology stocks which have driven the market in 1995. SBI's portfolio exposure to technology stresses less volatile, more scrutable companies such as Xerox, Perkin Elmer and Raychem, not "technology stocks" in the conventional sense. Adjusting for this factor, 1995 performance is as follows:

	S&P 500	SBI
6-Month 1995 Return	20.19%	15.48%
Less: Technology Return	<u>5.45%</u>	<u>1.33%</u>
	14.74%	14.15%

2. *Future Strategy.* What active bets are in place at the present time relative to our benchmark? Summarize the rationale for making these active bets.

Valenzuela Capital's investment philosophy is one of "risk-averse growth." We believe that growth in earnings and cash flow fuel price appreciation and that high price-to-earnings ratios cause volatility and risk. Hence, we try to sell higher P/E stocks and buy stocks in companies whose earnings will grow but whose P/E's are at or below the market. The portfolio was slightly realigned during the quarter. We added to positions we felt still represented good value and trimmed others, largely for reasons of valuation. New investments were initiated in Eckerd, WR Grace, KMart, Manpower, Rite Aid and Tenet Healthcare. Realized gains were taken in Bandag and Lubrizol. AT&T was sold because of the increasingly competitive long-distance environment, MacFrugal's due to softness in comparable store sales gains, and Reader's Digest due to concern about slowing earnings growth, particularly in Europe.

Valenzuela Capital (con't)

3. *Organizational Issues.* Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.

As discussed with SBI Staff, the firm was funded by a new client, Teachers' Retirement System of the State of Illinois. In addition, one client, US West, Inc. withdrew its account with the firm because of a strategic decision to index certain U.S. equity assets.

4. *Other Comments.* Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.

The economy is now exhibiting signs of weakness as consumers have throttled back spending in most key areas of consumption. This compression is causing inventories to pile up and threatening employment in many goods-producing industries. Investors who embraced this slowing as a "soft landing" for the economy only three months ago are now showing concerns that corporate earnings might come in shy of expectations. The equity markets have not yet paid much heed to this changing dynamic, as valuations are near record levels. There is a degree of complacency as investors appear to be assuming that the Federal Reserve's recent small cut in interest rates will restart our faltering economy. If there isn't a noticeable sign of pick-up in economic activity shortly, the equity markets will likely become more volatile. The valuations of the companies held in our portfolio are below that of the average company in the S&P 500. Because they are less richly valued, we believe that these holdings should perform relatively well if the market does become more volatile.

Staff Comments

Staff met with Valenzuela Capital to review investment strategy and portfolio performance during the quarter. Valenzuela Capital is making progress on the development of its benchmark. Staff believes there are no concerns at this time.

Manager Commentary
Wilke/Thompson Capital Management

Period Ending:	6/30/95	Returns	Qtr.	Year
Total Firm Assets Under Management	\$847 Million	Actual	16.5%	41.9
Total Firm Assets Managed in this Discipline	\$558 Million	Benchmark	7.9%	25.2

1. ***Past Performance.** Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?*

Wilke/Thompson Capital Management does not make active bets relative to a benchmark, rather we invest in high quality growth companies that have the ability to grow their earnings regardless of the economic environment. The State Investment Board portfolio was polarized in terms of gaining and losing sectors during the second quarter. Technology once again was the strongest sector with such subsectors as software and semi-conductor manufacturers leading the way. Capitalizing on strong sales to the home market and the anticipation of the release of Windows 95, personal computer mail order companies continued their dominant performance. Restaurants also showed signs of strengthening during the quarter in the way of solid returns. Those sectors which did not perform as well included the healthcare sector. Several of the retail names also struggled during the quarter as they were up against strong year-to-year comparisons as well as concerns over consumer confidence.

2. ***Future Strategy.** What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.*

A common concern to all investors is the market's ability to continue its ascent from current all-time high levels. Although the market may not post the 20% returns that we witnessed in the first half of the year, we do believe the market has the ability to continue to advance at modest rates. Three factors lead us to this conclusion. Interest rates, while they may not fall significantly, are not likely to increase and thus place pressure on equities. We also expect moderate economic growth, which favors high quality growth stocks. Wilke/Thompson also looks for inflation to remain in check and thus not placing upward pressure on interest rates. In general, our outlook for the remainder of 1995 continues to be very positive.

Wilke/Thompson Capital (con't)

3. *Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

Ann S. Pepper was hired as Wilke/Thompson's Chief Compliance Officer. Prior to joining Wilke/Thompson, Ann was with Fortis Investments.

Wilke/Thompson Capital Management added six accounts in this style during the quarter that total \$25.4 million and did not lose any accounts.

4. *Other Comments. Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

The SBI has continued to experience phenomenal relative performance relative to its benchmark since the inception of the account in April of 1994 and thus far in 1995. We look forward to continuing to serve the SBI.

Staff Comments

Wilke/Thompson has completed the development of its customized benchmark.

Manager Commentary
Winslow Capital Management, Inc.

Period Ending:	6/30/95	Returns	Qtr.	Year
Total Firm Assets Under Management	\$650 Million	Actual	8.3%	28.0%
Total Firm Assets Managed in this Discipline	\$400 Million	Benchmark	9.8%	30.5%

1. ***Past Performance.** Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?*

Winslow Capital began managing assets for the Minnesota State Board of Investment on April 1, 1994. In the quarter ended June 30, 1995 the SBI portfolio appreciated 8.30% on a total return basis net of fees versus the benchmark Russell 1000 Growth increase of 9.84%. The performance for the SBI account over the last twelve months shows an increase of 28.17% net of fees versus 30.51% for the benchmark and 26.07% for the S&P 500.

Investment results in the second quarter of 1995 continued the upward momentum with which the year started. The 9.5% second quarter return of the S&P 500 and the 9.8% return of the Russell 1000 Growth Index concluded the first half of the year. Only six times since 1928 have first half results been stronger. Our Large Cap Growth equity portfolios continued to be overweighted in technology, telecommunications, consumer discretionary and services. We also maintain a slight overweighting in the healthcare sector versus our benchmark. The investment process we follow is a fundamental "bottom up" approach that has led us to companies that exhibit strong earnings growth. In the most recent quarter, the average reported earnings gain for the companies in your portfolio was 26%. We continue to believe these companies have outstanding potential because they meet our criteria of rapid earnings growth at attractive valuations.

Similar to the first quarter, our considerable overweighting of the portfolio in technology was additive to performance. In addition to technology, our overweighting in telecommunications was positive for the quarter. The factors that lead to underperformance for the telecommunications in the first quarter were overcome and investors began to value the companies based on their outstanding growth prospects. The underperformance we experienced during the quarter ending June 30, 1995 was due to the slight overweighting of the healthcare, consumer discretionary and service sectors. The overall performance of retail securities continued to be negative in the second quarter as investors uncertainty about an economic slowdown and a deceleration in consumer spending persisted. We believe that the specialty retailers in our portfolio are poised to deliver rapid earnings growth due to better underlying fundamentals than the overall retail environment. The underperformance by managed care companies was aggravated by the assumptions that medical costs are on the rise and premium increases are flat to negative. In

Winslow Capital (con't)

general terms, we agree with this scenario, but we continue to find superior managed care companies that we believe will deliver above industry earnings growth. This above-average growth coupled with their depressed valuations make them attractive investment opportunities over the long term. We are focusing our attention on the most well-run companies that are likely to control their medical costs and benefit from Medicare and Medicaid enrollment growth.

2. *Future Strategy. What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.*

Winslow Capital Management, Inc. was hired to manage a Large Cap growth portfolio for the SBI. We have always been and will always be driven by strong future earnings growth potential at reasonable valuations. We continue to believe the sectors that are likely to exhibit the best earnings growth will be technology, specialty retail/consumer services, healthcare and telecommunications. Winslow Capital is overweighted in these sectors because on fundamental, bottom-up analysis we believe specific companies within the aforementioned sectors are poised to achieve strong future earnings growth. This growth will become more important as we experience a slowing of the domestic economy. As the growth of GDP slows, we will see certain companies and sectors of the market receive a premium for their ability to sustain rapid earnings growth. Notwithstanding the strong results of the first quarter, we continue to believe that on an absolute and relative basis our P/E ratios remain attractive. The portfolio is currently forecasted to achieve earnings growth of 25% over the next year, while selling at only 16.7 times our 1996 estimates.

3. *Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

During the second quarter Resource Trust hired Winslow Capital as a sub-adviser to manage a growth equity "no load" mutual fund. The total assets under management are now in excess of \$650 million. Gordon Ritz's tenure at the firm was completed as of June 30, 1995. Gordon has moved on to another venture capital opportunity in the insurance industry.

4. *Other Comments. Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

None.

Staff Comments

Staff met with Winslow to review investment strategy, portfolio performance and benchmark development during the quarter. Winslow is making progress on the development of its benchmark. Staff believes there are no concerns at this time.

Manager Commentary
Zevenbergen Capital, Inc.

Period Ending:	6/30/95	Returns	Qtr.	Year
Total Firm Assets Under Management	\$327 Million	Actual	10.4%	26.7%
Total Firm Assets Managed in this Discipline	\$327 Million	Benchmark	9.8%	30.5%

1. **Past Performance.** *Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?*

For the quarter, the Minnesota State Board of Investment Account had a positive return of 10.4% compared to the S&P 500 return of 9.4% and the Russell 1000 Growth return of 9.8%. Several of our strong performers (and a few challenges) for the quarter are highlighted below:

- Wireless communications equipment providers (Motorola, Glenayre Technologies and Nokia) saw strength as worries over rising inventory levels abated.
- We fared well in the consumer discretionary sector where many of our media picks (Capital Cities/ABC, News Corp.) outperformed. Starbucks also presented great appreciation for the quarter.
- Intel Corp. was repurchased during the quarter, after their main competitor, AMD announced a delay in bringing their product to market. Intel continues to be a stellar performer.
- Further review of Perrigo Company and conversions with management revealed no near-term recovery of revenue growth. Given better growth opportunities elsewhere, we elected to exit the position.
- Our lack of confidence in management and pending sales which did not materialize, caused concern for Sybase, Inc.'s future prospects. The position was sold.

Technology stocks led by a substantial margin, and Zevenbergen Capital's overweighting of the sector aided in our second quarter outperformance of both indices. Also contributing to returns was the intentional underweighting of the Health Maintenance Organization group, which was the worst performing industry for the second quarter of 1995.

2. **Future Strategy.** *What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.*

As mentioned in our first quarter 1995 report, ZCI employs a fundamental, "bottom-up" stock selection process and does not use themes explicitly in its investment approach. Many holdings in our portfolio are continuing to benefit from trends we see over the coming decade.

Based on our fundamental analysis, the portfolio continues to render a strong commitment to the technology and telecommunications industries. Outsourcing, the continuing PC upgrade cycle and the demand for new consumer technologies continues to present growth opportunities for long-term investment. We also continue to see positive growth attributes in both the cable media industries.

Zevenbergen Capital (con't)

3. **Organizational Issues.** *Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

There were no personnel changes during the second quarter of 1995 and Zevenbergen Capital lost one account for the period.

4. **Other Comments.** *Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

None

Staff Comments

Staff met with Zevenbergen Capital to review investment strategy, portfolio performance and benchmark development during the quarter. Zevenbergen Capital is making progress on the development of its benchmark. Staff believes there are no concerns at this time.

Manager Commentary
BEA Associates

Period Ending:	6/30/95	Returns	Qtr.	Year
Total Firm Assets Under Management	\$28.9 Billion	Actual	6.9%	13.5%
Total Firm Assets Managed in this Discipline	\$11.0 Billion	Benchmark	6.1%	12.5%

1. *Past Performance. Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?*

The performance of the fixed income only portfolio exceeded the Salomon BIG Index by 24 basis points. The outperformance relates to our decision to own better structured mortgage bonds in a declining interest rate environment, the modest rally in the perpetual floating rate note market and security selection in corporate bonds. Our yield curve strategy which entailed a slight overweighting in long bonds, modestly hurt returns.

The derivative strategies negatively impacted returns as volatility's continued to expand. The decision to go short volatility in both the Nikkei and Yen/Dollar worked against us. The two areas in which we went long volatility, the Mark/Yen cross and the S&P 500 Index, saw volatility's decline. The derivative strategies negatively impacted returns by 56 basis points for the period 4/1/95 - 6/30/95. It is interesting to note that over the past twelve months (7/1/94 - 6/30/95) the fixed income only portion of the portfolio has generated a 12.91% return versus a 12.55% return for the Index. The total portfolio return of 12.48% is 43 basis points lower and is representative of a very unusual period for the BEA derivatives group, which traditionally has generated annual incremental returns of 70 basis points. It is our expectation that our longer term orientation will insure that these derivative strategies will enhance returns and have very low correlations to the value added strategies pursued in the bond portion of the portfolio. As of the writing of this report (7/20/95) approximately 20 basis points of performance has been recaptured in derivatives.

2. *Future Strategy. What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.*

As of late May and early June, BEA overweighted the mortgage portion of the portfolios we manage by approximately 10%. We did this by purchasing GNMA and FNMA issues trading at modest premiums due to a sharp compression of dollar spreads. The price difference between coupons (i.e. GNMA 7 and GNMA 7 1/2) is a good gauge of the markets sentiment regarding prepayment rates. When investors are convinced that interest rates are going down and prepayments are going to accelerate, they are less inclined to pay much of a premium over par for a mortgage bond. The resulting compression of the dollar spreads of higher coupon mortgages can provide a contrarian investor with the opportunity to buy higher coupon mortgages at modest pay-ups to lower coupon issues. To find a period that had similar dollar

BEA Associates (con't)

price compression one has to go back to October 1993 when rates were below 6.00%. This means that today, investors are pricing premium mortgage bonds as if a further 50-100 basis point decline is highly certain. We have structured our trade to match the market if rates continue to decline and outperform if rates go up or are unchanged.

In the corporate bond portion of the portfolio we purchased a 1.6% position in premium telephone bonds. The spreads we were buying these callable bonds at more than compensated investors for taking modest call risk. The extremely bullish market sentiment caused most investors to shun all callable corporate bonds, even the ones with very good call protection. The telephone bonds BEA purchased for the State of Minnesota bond portfolio all had at least 8 years of call protection.

3. *Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

Bill Sterling, head of International Economics at Merrill Lynch joined BEA in June to head our Global Economic Research effort.

4. *Other Comments. Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

None

Staff Comments

Staff visited BEA Associates to review organizational changes, investment strategy and portfolio performance during the quarter.

Bob Moore, the SBI's primary portfolio manager, has expanded responsibility as he was named Head of BEA's Fixed Income department. While staff was concerned about the potential dilution of his time, staff believes that Mr. Moore's promotion ensures that the SBI portfolio will continue to receive the highest level of attention at BEA.

Staff met with most of the key individuals within the BEA fixed income department, as well as the high yield "team" which joined BEA from CS First Boston. Staff believes that BEA's fixed income group is quite capable. The addition of the CS First Boston high yield group will provide the potential for expanded opportunities for the SBI portfolio in the future.

BEA was placed on probation at the June 1995 meeting due to departure of Mark Arnold, former Head of the Fixed Income Department, and BEA acquisition of CS First Boston. After review, staff recommends that BEA be removed from probationary status.

Manager Commentary
Investment Advisers, Inc.

Period Ending:	6/30/95	Returns	Qtr.	Year
Total Firm Assets Under Management	\$15.0 Billion	Actual	4.6%	10.4%
Total Firm Assets Managed in this Discipline	\$ 5.0 Million	Benchmark	6.1%	12.5%

1. *Past Performance.* Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?

The portfolio underperformed the benchmark during the second quarter of 1995 and for the trailing 12-month period. Our defensive duration stance and our underweighting in corporate bonds reduced our relative return during the second quarter of 1995. Our overweightings in asset-backed securities (ABS) and putable corporate bonds and our underweighting in mortgage-backed securities (MBS) enhanced our relative return during the second quarter.

2. *Future Strategy.* What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.

Treasuries are at a neutral weighting, whereas ABS are overweighted. ABS are defensive, high-quality (AAA-rated) investments--ideal for a bear market. Mortgage passthroughs are now at a neutral weighting since MBS spreads have widened to fair value levels. Corporate bonds are underweighted as a result of narrow yield spreads and an onslaught of new issue supply as a result of lower interest rates. At this stage of the credit cycle (late second phase), it is important to be neutral-to-defensively postured as interest rates are likely to rise and credit/quality spreads are likely to widen. Acquisition activity is surging and event risk is becoming more of a concern to bond investors. The portfolio has a 4.1-year duration, approximately one-half year less than the duration of the benchmark. The portfolio is of "AAA+" quality and has a yield curve structure similar to that of the benchmark index.

Investment Advisors, Inc. (con't)

3. *Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

IAI hired one additional International Equity Portfolio Manager, Jane Alliston who will specialize in Far East Equity and Jim Cecil is an equity analyst.

IAI lost one investment professional, Greg Fraser who specialized in Far East Equities.

The ownership of IAI by TSB Group, plcc. remains unchanged.

IAI gained 1 fixed income account with \$30 mm in assets and lost 2 fixed income accounts with \$22 mm in assets. In this discipline, IAI lost 1 account which had \$14mm in assets.

4. *Other Comments. Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

No additional comments.

Staff Comments

Staff visited IAI during the quarter and had meetings with the CEO (Noel Rahn) as well as key members of the fixed income department (Larry Hill and Scott Bettin).

Staff reviewed investment strategy and portfolio performance for the SBI portfolio. Duration decisions for the quarter and year caused the negative performance.

Staff believes there are no other particular concerns with IAI at this time.

Manager Commentary
Miller, Anderson & Sherrerd

Period Ending:	6/30/95	Returns	Qtr.	Year
Total Firm Assets Under Management	\$32.8 billion	Actual	6.1%	12.4%
Total Firm Assets Managed in this Discipline	\$19.5 billion	Benchmark	6.1%	12.5%

1. ***Past Performance.** Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?*

Over the last quarter, your portfolio has provided a return of 5.9% return (net of fees) versus a benchmark return of 6.1%. Over the last twelve months, your portfolio has provided a 12.2% return (net of fees) versus a 12.5% return for its benchmark.

During the last quarter, your portfolio had a duration slightly less than that of your benchmark, had a distinct barbell structure, was overweight both corporate and mortgage securities, and had a roughly 10% exposure to foreign fixed income securities. For the quarter, the duration had minimal impact on relative performance. The barbell strategy and the exposure to corporate securities added to performance while the mortgage and foreign commitments detracted. Over the last twelve months, the duration and yield curve strategy have added to performance, the corporate strategy has been neutral, and foreign and mortgage securities exposure has detracted.

2. ***Future Strategy.** What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.*

Currently, the duration of your portfolio is about three-tenths of a year less than your benchmark. We have reduced interest rate exposure in the portfolio over the last several months because the recent rally has resulted in a level of real rates within the U.S. market that we believe is unattractive. The portfolio continues to be barbelled because cash yields are historically high relative to intermediate yields. Cash and long maturity securities, in our judgment, is an efficient way to hold the interest rate risk within the portfolio. In response to the most recent rally, mortgage and corporate securities have become a somewhat better value and we have been increasing our exposure to these sectors. Mortgage-backed securities are targeted at 50% of your portfolio and will provide a very defensive commitment, should interest rates rise. In addition, we have continue to maintain our commitment to non-dollar fixed income securities because the level of real interest rates available in these countries exceeds that available in the U.S.

Miller, Anderson & Sherrerd (con't)

3. *Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

Morgan Stanley Group, Inc. has signed a definitive agreement to purchase Miller, Anderson & Sherrerd. This is a strong business combination because it brings together two outstanding firms that share a common culture and approach to the asset management business. We believe that the clients and employees of both firms will benefit from the complementary fit between the two organizations. Each firm is identified with an established and successful management team, investment style and product line. THIS WILL NOT CHANGE. The integrity of the investment processes and the respective management teams will remain intact and in their current locations. Our clients will continue to receive the same level of attention and investment management expertise they have come to expect, but will now also benefit from Morgan Stanley's extensive market reach and global capabilities.

In the second quarter, one marketing professional was hired.

During the quarter we gained eight new accounts and lost three.

4. *Other Comments. Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

None

Staff Comments

Staff visited Miller during the quarter to discuss organizational changes, investment strategy and portfolio performance.

Staff believes that the organizational changes will have no adverse impact on the strategy on performance of the SBI portfolio. It is staff's assessment that the merger may provide for longer term stability of the organization.

Staff attended a strategy session of the Miller Anderson fixed income department. Staff believes that this group has expertise in a variety of areas and is quite capable.

**Manager Commentary
Standish, Ayer & Wood**

Period Ending:	6/30/95	Returns	Qtr.	Year
Total Firm Assets Under Management	\$27.6 billion	Actual	5.9%	11.3%
Total Firm Assets Managed in this Discipline	\$10.2 billion	Benchmark	6.1%	12.5%

1. *Past Performance. Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?*

2nd Quarter Commentary

MSBI Portfolio outperformed the Lehman Aggregate by 2 basis points.

- Duration -15 Basis Points
- Yield Curve Shifts +5 Basis Points
- Domestic Sectors +16 Basis Points
- Non Dollar -1 Basis Points

2nd Quarter Bets vs. Benchmark Commentary

- Overweight in mortgages which underperformed.
- Underweight in Treasuries which led the rally in May as managers rushed to extend duration by selling mortgages to buy Treasuries.
- Overweight Corporates - Spreads tightened in April in investment grade and then held in fairly well in May and June.

2. *Future Strategy. What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.*

<u>Sector</u>	<u>Weighting Strategy</u>	<u>Rationale</u>
Mortgages (including asset backed)	Increasing overweight	Sector has done poorly in 95 and spreads are wide
Corporates	Overweight (but with less emphasis)	Spreads are generally very tight in inv. grade.
International	Increasing small holding closer to limitation	Non-dollar has sharply underperformed. Appears much more attractive than domestic.
Treasuries	Remain underweight	Treasuries have been focus of strong rally. Extended and not supported by fundamentals.

Standish (con't)

3. *Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

Completed acquisition of half of Consolidated Standish not previously owned. (Joint Venture with Trigon (BC/BS of Virginia) in management of short term assets). James W. Copley, Fixed Income Portfolio Manager and William Lupoletti, Fixed Income Portfolio Manager, joined as Standish employees at that time.

Personnel additions:	Dennis Woessner	-Asset Backed Trader
	Karen Myers	-Int'l Quantitative Analyst & Trader
	Dongyan Ma	-Fixed Quantitative Analyst

Personnel departures:	Thomas Sanford	-Int'l Quantitative Analyst
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Accounts:	Lost none
	Gained 2 Pensions \$150 million
	Gained 1 Endowment \$98 million

4. *Other Comments. Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

None

Staff Comments

The differences between portfolio returns as reported by staff and the portfolio manager reflect variances in security pricing.

Manager Commentary
Western Asset Management

Period Ending:	6/30/95	Returns	Qtr.	Year
Total Firm Assets Under Management	\$15.3 Billion	Actual	7.1%	14.7%
Total Firm Assets Managed in this Discipline	\$8.3 Billion	Benchmark	6.1%	12.5%

1. *Past Performance.* Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?

The portfolio once again exceeded benchmark returns by a significant margin last quarter, as most major strategies proved successful. Performance this past quarter was dominated by the portfolio's long duration posture, given the sharp decline in interest rates across the board. Sector decisions also played a major role, as overexposure to corporates was rewarded with narrower spreads, and underexposure to mortgages aided relative performance as mortgages suffered. In addition, the portfolio's emphasis on discount coupon mortgages was also positive, as these outperformed.

Performance is now very strong, both nominally and relatively, over the past 12 months. The portfolio's long duration posture over most of the past year has been a positive factor for performance, since long-term interest on net are lower than they were a year ago. More importantly, the portfolio has benefited significantly from historically volatile shifts in the yield curve: last year's flattening rewarded the portfolio's barbell exposure to maturities, while the steepening yield curve rewarded the portfolio's concentration in intermediate maturities in the first quarter. With a significant overweighting to corporate bonds throughout most of this period, the portfolio has also been the beneficiary of a general tightening in corporate spreads, particularly at the low end of the investment quality scale.

2. *Future Strategy.* What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.

In a fundamental sense, the economy remains in the grips of tight monetary policy, and the Fed is unlikely to bring short-term rates down to a neutral range anytime soon, barring an outright recession. Years of Fed-induced disinflationary adjustments have left the economy lean and mean, and corporate balance sheets look quite healthy. Coupled with anticipated fiscal reform, this adds up to a strong case for core inflation trending down towards, and perhaps below, 2% in coming years. With monetary policy working to restrain growth, and fiscal policy likely to tighten, we will probably see six months or so of slow or perhaps moderate growth before the economy gets back on its feet. If the past is any guide, sub-par growth and downtrending inflation will cause the Fed to ease policy in a slow and deliberate fashion. This limits the ability of short-term rates to fall from current levels, but long-term interest rates have not fully discounted the prospects of a secular low-inflation environment.

Western Asset (con't)

Consistent with this view, we continue to hold a longer-than-normal duration posture, with an emphasis on exposure to the short and long areas of the yield curve. Barbells usually imply a cost, but are currently yielding more than bulleted portfolios of similar duration. Plus, a barbelled portfolio offers a built-in hedge against an unexpected strengthening of the economy, which would likely cause short-term interest rates to rise relative to long-term rates.

We also continue to hold an underweight exposure to the mortgage sector in light of low spreads and higher prepayment risk, through we look for mortgages to become more attractive as spreads widen. Corporates remain attractive, but on a selected basis, as there is a risk that protracted economic weakness could begin to undermine investors' confidence in corporate credit quality, and current spreads offer sub-average protection.

- 3. Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

Western Asset added six accounts. No accounts lost.

- 4. Other Comments. Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

None.

Staff Comments

No comments at this time.

Manager Commentary
IDS Advisory (IDS Fixed-Income Advisors)

Period Ending:	6/30/95	Returns	Qtr. Year
Total Firm Assets Under Management	\$23.4 Billion	Actual	7.1%13.5%
Total Firm Assets Managed in this Discipline	\$4.6 Billion	Benchmark	6.4%12.7%

1. ***Past Performance.** Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?*

In the quarter ended June 30, 1995, your portfolio had investment performance of +7.3% compared to the +6.5% return in the Lehman Brothers Government/Corporate Bond Index. For the twelve months ended June 30, 1995, your account a return of +13.8% compared with the +12.8% return registered by the Lehman Brothers Government/Corporate Bond Index. During the second calendar quarter the yield curve, as measured by the two year to thirty year Treasury, steepened by 17 basis points, as the market tried to anticipate the Federal Reserve Board's reduction in short-term interest rates. Cash in the account was reduced to minimum levels and duration was lengthened from 6.1 years to 6.8 years which benefited total return during the period.

2. ***Future Strategy.** What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.*

Yield spreads between Corporates and Treasuries continue to remain stubbornly narrow with only modest signs of widening. While our conviction that slower growth in the economy will lead to a widening in yield spreads is being tested, we remain convinced that it will occur. An opportunity to increase corporate bond positions at more advantageous spreads is, in our opinion, still in the offing.

IDS (con't)

3. *Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

There have been no significant ownership or personnel changes for IDS Fixed-Income Advisors over the last quarter.

Second Quarter 1995

Product	Gains		Losses	
	# of Accounts	Assets (\$MM)	# of Accounts	Assets (\$MM)
Large Cap Equities	4	111.27	2	72.3
Fixed income	1	11.2	0	0
Balanced	3	20.42	1	25.5
International	0	0	1	52.2
Regional - Pacific	1	2.7	0	0
Global Ex-Australia	1	5.9	0	0
Latin America	1	47.0	0	0
Small Cap Equities	0	0	0	0
Mid Cap Equities	0	0	0	0
Research Core	0	0	0	0
Research Aggressive	0	0	0	0
Global Bonds	0	0	0	0
Structured Fixed Income	0	0	0	0

4. *Other Comments. Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

Soon after the June quarter end the FRB reduced the Federal Funds rate 25 basis points. This did little more than validate the market.

Staff Comments

No comments at this time.

Manager Commentary
TCW Asset Management

Period Ending:	6/30/95	Returns	Qtr. Year
Total Firm Assets Under Management	\$51.9 Billion	Actual	6.8% 13.7%
Total Firm Assets Managed in this Discipline	\$8.7 Billion	Benchmark	5.2% 12.2%

1. ***Past Performance.** Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?*

Strong performance during the second quarter of 1995 is attributed to the decline in interest rates and the resulting increase in prepayment expectations within the mortgage sector. The securities with call protection and long, discounted holdings that benefit from an increase in prepayments demonstrated the strongest performance during the quarter. Conditions within the CMO sector continued to improve since last year, and inverse floaters and other long, discounted securities also recovered due to the growing market expectation of lower interest rates and higher prepayment rates.

2. ***Future Strategy.** What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.*

We continue to emphasize the CMO sector which is absent from the benchmark. Over 57% of the portfolio is invested in CMOs. Specifically, we have focused on call-protected CMOs that are likely to deliver higher yields and total returns than the underlying pass-throughs, without compromising credit quality. Much of the year to date performance has been based on market expectations that have yet to be realized. Strong performance will continue as the market's expectations of lower short term rates and higher prepayment rates come to fruition. Adjustable rate mortgages comprise slightly over twenty percent of the total gross assets and provide the portfolio with a high yielding short duration asset. The portfolio is currently well-positioned to outperform its benchmark in the current environment because it has more call protection, greater convexity and a higher yield than its benchmark.

TCW Asset Management (con't)

3. *Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

There were no significant ownership or personnel changes over the last quarter. Three accounts totaling approximately \$128 million were lost in this strategy, and one new account for \$50 million was added.

4. *Other Comments. Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

No comments at this time.

Staff Comments

No comments at this time.

Manager Commentary
Fidelity Management Trust Company

Period Ending:	6/30/95	Returns	Qtr.	Year
Total Firm Assets Under Management	\$26.8 Billion	Actual	6.0%	11.2%
Total Firm Assets Managed in this Discipline	\$4.7 Billion	Benchmark	6.1%	12.5%

1. ***Past Performance.** Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?*

The portfolio outperformed the Lehman Aggregate Index by 19 basis points during the quarter. While we remained defensively positioned through emphasis on short duration corporate issues, our small Mexican Yankee allocation contributed the most to the portfolio's relative risks.

During the quarter, the Mexican market experienced a sharp rebound. Major factors contributing to the market's strong performance included a balancing of the current account, falling inflation, lower interest rates, and a return of capital to the country. Significant concerns still remain regarding Mexico's weak economy, an unhealthy banking sector, and political returns.

The portfolio had an underweighting in mortgage pass-through securities during part of the quarter, which also helped performance. The large decrease in interest rates increased prepayment expectations for mortgages which resulted in this sector's underperformance relative to comparable duration Treasuries. In addition, collateralized mortgage obligations and commercial mortgage backed securities did well benefiting from favorable technical conditions.

2. ***Future Strategy.** What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.*

Corporates

We maintain a corporate dollar duration underweighting. High valuation in the corporate sector continues to offset improving fundamentals. Emphasis remains on short duration, low quality issues.

Mortgages

The recent interest rate rally resulted in the fair valuation of mortgage pass-throughs. In response, we increased the portfolio's mortgage pass-through allocation so that it is neutrally weighted relative to the Index.

The portfolio continues to overweight CMOs and CMBS. These sectors still offer attractive relative values.

Fidelity Management Trust (con't)

Yield Curve

We continue to maintain a neutral yield curve positioning relative to the Index.

3. *Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

Personnel Changes

During the 2nd quarter of 1995, Mr. Fred Henning was named Managing Director of Fidelity's Bond and Money Market Divisions.

Targeted Active Management Accounts Gained/Lost

Below we have provided you with the Targeted Active Management account(s) gained and lost during the 2nd quarter of 1995.

Gained

Adobe Systems, Inc.

Lost

Florida League of Cities

AEGIS

Sony Music Entertainment

4. *Other Comments. Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

None

Staff Comments

Staff does not believe that the appointment of Mr. Henning will result in a change in the strategy or have a material impact on the performance of the SBI portfolio.

Manager Commentary
Goldman Sachs Asset Management

Period Ending:	6/30/95	Returns	Qtr.	Year
Total Firm Assets Under Management	\$44.1 Billion	Actual	5.9%	12.7%
Total Firm Assets Managed in this Discipline	\$14.9 Billion	Benchmark	6.1%	12.5%

1. ***Past Performance.** Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?*

In the second quarter the portfolio underperformed the Lehman Aggregate Index by 8 bps. The portfolio's mortgage sector holdings were primarily responsible.

The mortgage sector detracted about 11 bps from the portfolio's performance. Collateral security selection hurt the portfolio's return; overweighting premium collateral detracted from the portfolio's performance as premiums were most negatively affected by increased prepayment fears. Spread widening on the portfolio's non-derivative CMOs detracted 3 bps while spread tightening and incremental spread in the portfolio's derivative holdings added approximately 3 bps.

The portfolio's Treasury securities added about 1 bp to its incremental return due to security selection. The Agencies also added approximately 1 bp.

The portfolio's corporate securities detracted about 1 bp from its incremental return. Overweighting the finance subsector added about 2 bps as spreads tightened, while about 3 bps were lost from the underweighting of the utility and foreign subsectors.

The portfolio's emerging market securities added about 1 bp to its incremental return. The Republic of Columbia Yankee bond spreads tightened during 2Q95. The Republic of Columbia 9s due 1999 tightened from the low 200s to approximately 175 bps by the end of June.

Duration/Term Structure Exposure	-2.8	Emerging Markets	1.0
Treasury	1.2	Mortgage	-10.6
Agency	0.6	Municipal	0.0
Asset-Backed	0.2	Index Price Mismatch	2.7
Corporate	-1.0	Residual	<u>0.7</u>
		Total	-8.0

2. ***Future Strategy.** What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.*

In Agencies, portfolio is slightly underweight with respect to benchmark in favor of other higher-yielding spread sectors.

Goldman (con't)

33% allocation to the mortgage sector. Positive outlook on collateral due to recent widening; increased allocation 2.5% in June. Overweight GNMA's relative to conventionals due to recent cheapening. Focus on 8% and 9% securities in the TBA sector and 9% and 9.5% securities in the WAM sector. Underweight 15-year mortgages due to tight option-adjusted spread levels. Continue to add mortgage derivatives when additional spread offsets the incremental risk and lower liquidity.

90% allocation to corporates. Cautiously optimistic on corporate spreads which we do not expect to reach the tight levels seen earlier in the year. However, the negative impact of the slowing economy and increased event risk should be offset by improving technicals in the sector as issuance slows. Subsectors; Favor industrials and financials over utilities and Yankees. However, we may look to buy utility paper if recession threatens the economy and may increase exposure to Yankees as spreads widen.

10% allocation to asset-backed sector, which should still continue to benefit from strong investor demand for short-duration paper with incremental yield and low spread volatility.

2% allocation to emerging market debt. Focus on the Republic of Columbia and CAF as we expect spreads for these bonds to tighten.

3. Organizational Issues. *Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

There were no changes in the ownership of GSAM.

GSAM had one addition and no losses to our U.S. fixed income portfolio management staff: Michael Branchmeyer, Associate; Credit Analyst joined GSAM in June 1995.

U.S. Fixed Income Accounts Gained: 2

U.S. Clients	1
Non-U.S. Clients	1

U.S. Fixed Income Accounts Lost: 0

U.S. Clients	0
Non-U.S. Clients	0

4. Other Comments. *Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

None

Staff Comments

Staff visited Goldman Sachs to review investment strategy and portfolio performance during the quarter. Staff met with all the key individuals in the fixed income department to review the strategy employed in the management of the SBI portfolio. Additionally, staff discussed how areas such as dollar denominated emerging market debt could be utilized within the SBI portfolio. Staff believes there are no concerns at this time.

Manager Commentary
Lincoln Capital Management Company

Period Ending:	6/30/95	Returns	Qtr.	Year
Total Firm Assets Under Management	\$31.7 billion	Actual	5.9%	12.7%
Total Firm Assets Managed in this Discipline	\$9.4 billion	Benchmark	6.1%	12.5%

1. *Past Performance.* Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?

	2nd Quarter	1995	12 Months Ended	6/30/95
	Active Strategy	Value Added	Active Strategy	Value Added
Mortgages	Overweighted	-0.02%	Overweighted	+0.01%
Corporates	Neutral	0.00	Neutral	0.00
BBBs	Neutral	0.00	Underweighted	0.00
Asset-Backed Agencies	Overweighted	+0.01	Overweighted	+0.03
	Overweighted	0.00	Overweighted	0.00
Miscellaneous				
Rebalancing Transaction Cost	N/A	-0.01%	N/A	-0.04%
Security Selection	N/A	+0.02	N/A	+0.15
Less Fees		<u>-0.01</u>		<u>-0.04</u>
Total		-0.01%		+0.11%

The increase in mortgage spreads during June offered an opportunity to establish a 5% overweighting in current coupon, 30 year, conventional mortgages relative to the index. Current coupon mortgage spreads are unusually wide, while prepayment risk is very low at the current level of rates. Due to an incremental spread widening following the purchase of mortgages, the overweighting cost the portfolio approximately two basis points of value added during the quarter. The balance of the return differential between the portfolio and the index can be explained by security selection.

Over the last 12 months, the overweighting in both mortgages and asset-backed improved the portfolio's return. Security selection was the largest contributor to value-added.

Lincoln (con't)

2. *Future Strategy. What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.*

Future Strategy	Strategy	Rationale
Government Trust Certificates	Overweighted vs Treasuries	1. Government Guarantee 2. Attractive Yield 3. Certain Cash Flow
Asset-Backed	Overweighted vs Treasuries and Corporates	1. High Quality 2. Attractive Yield 3. Low Event Risk 4. Low Prepayment Risk
Current Coupon Year Mortgages	Overweighted vs Treasuries	1. Agency Quality 2. Low Prepayment Risk 3. Wide Nominal Spreads

3. *Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

	Number	Market Value (\$ millions)
Accounts Gained	1	\$500
Accounts Lost	2	95

There were no personnel changes

4. *Other Comments. Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

There are no issues or developments that would impact the SBI account.

Staff Comments

No comments at this time.

Manager Commentary
GE Investment Management, Inc.
Assigned Risk Plan

Period Ending:	6/30/95	Returns	Qtr.	YTD
Total Firm Assets Under Management	\$47 Billion	Actual	9.5%	25.9%
Total Firm Assets Managed in this Discipline	\$ 9 Billion	Benchmark	9.5%	26.1%

1. *Past Performance. Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?*

GE Investment Management, Inc. began to manage the Minnesota State Board of Investment account in January 1995. The second quarter of 1995 was the first full quarter of investment management, and the GEI Multi-Style portfolio outperformed the S&P 500 by 3 basis points in that period. Inception to date performance is 21 basis points behind the S&P 500, with negative performance primarily caused by start up expenses.

In the second quarter we were helped by an overweighting in aerospace (primarily Lockheed Martin Corp., McDonnell Douglas Corp. and United Technologies), an underweighting in electrical equipment (primarily General Electric) and an underweighting in most consumer cyclical stocks. We were hurt by an underweighting in Microsoft, the airline industry (primarily AMR and Delta), and a 4% cash position.

2. *Future Strategy. What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.*

We currently are overweighted in the capital goods (aerospace, machinery, manufacturing and conglomerates) and financial (insurance and misc. financials) sectors. We believe there will be a continued emphasis on capital formation worldwide for the remainder of this decade. We believe demographics favor financial stocks, plus we traditionally are overweighted in financial stocks due to favorable growth characteristics and low relative valuations.

We currently are underweighted in the consumer (automotive, retail, beverage, food and tobacco) and utility (electric and telephone) sectors. The negative consumer weighting is the antithesis of the positive capital goods bet, as we believe the consumer will be spending less and saving more as the baby boomer generation begins to look towards retirement. We believe the utility sector will be facing increased competition in the years ahead.

GE Investment Management (con't)

3. *Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

There have been no ownership or personnel changes over the last quarter. We have not gained or lost any accounts in the last quarter.

4. *Other Comments. Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

The GEI Multi-Style portfolio remains equally weighted with respect to value and growth, and is well positioned, we believe for good relative performance over the balance of 1995.

Staff Comments

No comments at this time.

Manager Commentary
Voyageur Asset Management
Assigned Risk Plan

Period Ending:	6/30/95	Returns	Qtr.	1 Yr.
Total Firm Assets Under Management	\$ 7.0 Billion	Actual	5.3%	10.8
Total Firm Assets Managed in this Discipline	\$ 430 Million	Benchmark	4.5%	10.2

1. ***Past Performance.** Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?*

	<u>Portfolio</u>	<u>Benchmark</u>
Quarter Ending 9/94	0.74	.99
Quarter Ending 12/94	0.04	.13
Quarter Ending 3/95	4.47	4.30
Quarter Ending 6/95	5.27	4.51
One Year	10.83	10.23

We made no significant sector or duration bets in the June '94 - Dec '94 period. We remained short or even to the custom benchmark through that period and were roughly evenly allocated to the representative sectors (i.e., corporates, mortgages and Treasuries). Our approach towards the market was defensive, in response to the Fed's tightening initiatives.

By calendar year end, we became more constructive on the market and through the first six months of 1995, we became more aggressive in the management of the portfolio. We slightly underweighted the mortgage sector (until May) and marginally underweighted the Treasury sector, taking advantage of the relative weakness (for us, a buying opportunity) in the asset-backed sector. Combined with corporates, this sector was overweighted relative to the index. In addition, we were slightly long relative to the benchmark duration, capitalizing on the stronger price performance of longer dated securities in a dropping interest rate environment.

Performance was relatively flat in the final six months of 1994 due primarily to our lack of significant sector bets or rotation. The next six months, however, tell a different story as we became much more active within sectors (buying and selling within and across sectors) and having a more positive duration view of the market.

2. ***Future Strategy.** What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.*

In May, we added significantly to the mortgage sector, increasing the allocation by 10%. Our rationale was that the sector was unduly depressed due to exaggerated fears of an excessive acceleration in prepayments. We will continue to remain overweighted in this sector until we believe the sector becomes too expensive (we believe it currently represents fair value). From a fundamental and technical perspective, the corporate sector should remain in tact and therefore we will maintain our overweighted posture here (that is, corporates combined with asset-backed). Earnings reports are strong and supply has remained on the light side. And finally, our view of the market remains more constructive than it was in 1994.

Voyageur (con't)

From a duration perspective, we will look to add additional value by remaining marginally long the benchmark. Basically, we believe the economy will achieve a soft-landing. As such, we don't envision a mortgage environment where prepayments will accelerate to levels seen in '93 (for that to happen, rates would have to fall dramatically). Moreover, with a soft-landing scenario, corporate America should suffer no significant deterioration in credit quality.

To summarize, by sector, we anticipate remaining overweighted in mortgages and corporates (including asset-backed) and underweighted in government securities. With duration, we anticipate remaining long to the custom benchmark. It is important to note that it is our intent to add the greatest value through sector rotation and specific security choices rather than by any significant interest rate bet.

- 3. Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

There have not been any significant ownership or personnel changes at Voyageur during second quarter, 1995. There were not any accounts lost in this particular discipline during second quarter, 1995. While we did add a new insurance client, Oregon School Boards Self-Insurance Pool, during second quarter, its investment parameters are not very similar to those of the Assigned Risk Plan.

- 4. Other Comments. Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

The single most important issue that would affect the management of the SBI account is the possibility that Assigned Risk be considered a taxable entity. If this occurs, management of the account would be fundamentally different and would involve reassessing the investment goals and parameters.

Staff Comments

On July 11, 1995, staff visited the offices of Voyageur Asset Management to review the performance of the Assigned Risk Plan (ARP) fixed income segment. Discussions covered recent portfolio performance, future portfolio strategy, Voyageur's goals for future growth, and changes to their organization.

Information staff collected in the meeting coincides with Voyageur's comments above. In addition, Voyageur's goals are to grow their business from the current \$8.9 billion under management to about \$15 billion in two years through the addition of products, marketing, and possible acquisitions. Voyageur has already added seven new employees in 1995 for both fixed income and equities positions including marketing, portfolio management and analysts. Staff does not anticipate that these changes will adversely affect the management of the ARP account.

The issue raised regarding the possible taxable status of the ARP is being reviewed with the Department of Commerce. At this time, no action is warranted with respect to the current portfolio.

Manager Commentary
Baring Investment Services

Period Ending:	6/30/95	Returns	Qtr.	Year
Total Firm Assets Under Management	\$11.2 Billion	Actual	0.2%	0.2%
Total Firm Assets Managed in this Discipline	\$ 1.8 Billion	Benchmark	0.8%	1.7%

1. ***Past Performance.** Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?*

The following figures show a breakdown of the returns for the last quarter:

	Total		Market	Tracking
	Return	Currency	Weighting	Error
	%	%	%	%
Minnesota State Board	0.2	-0.3	-0.2	0.2
Benchmark	0.8	0.3	0.5	---
Relative Return	0.6	-0.6	-0.7	0.2

Currency (Relative return -0.6%): Currency management has been the main reason for under performance over the past quarter and 12 months. Underweighting the Yen detracted from the relative return as did the overweighting of Sterling, the Australian Dollar and the French Franc. The initial Singapore Dollar overweighting added value as did the underweight Swiss Franc position.

Market Weighting (Relative return -0.7%): While the underweight Japan position added value along with exposure to non-index Thailand, these could not offset the negatives from underweighting European markets such as Switzerland, Sweden, UK and zero exposure to Finland.

Tracking Error (Relative return 0.2%): Primarily from Singapore but marginally offset by Korea.

2. ***Future Strategy.** What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.*

The main feature of our strategy during the quarter was to reduce significantly the underweighting in Japan and, subsequent to the quarter end, we had moved to being overweight for the first time in over eight years. There is strong evidence that Japanese corporations are finally recognising their high fixed cost structure and are reducing these costs by shedding labour and moving production facilities offshore. This reduction in fixed costs will result in a significant profits recovery in the coming three years. On our forecast profits the market is now selling on approximately 25 times consolidated fiscal 1998 earnings, not unreasonable in the content of 3% bond yields. Finally the Bank of Japan has begun an aggressive easing of monetary policy in order to fend off the deflationary forces within the economy. This liquidity will initially flow in the financial markets boosting asset prices. We have maintained our

Baring (con't)

hedge from the Japanese Yen into both the US Dollar and the Continental European currencies as we believe this monetary easing will result in a weaker Yen.

3. *Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

Additions to Firm
None

Leavers
C. McMullen - US Equity Specialist
S. Bate - MC Bond Specialist
M. Lovett - UK Specialist
V. Sekhar - Global Emerging Specialist
A. Parry - Head of UK Equities
K. Okamura - Japan Specialist
L. Duke - US Bonds

The above leavers are for Baring Asset Management worldwide and none are involved in the management of active/passive portfolios. This turnover should be put in the context of our 160 investment professionals worldwide.

No accounts gained/lost in this discipline - but \$80 million in contributions from existing active/passive clients.

4. *Other Comments.*

None.

Staff Comments

Barings Asset Management was placed on probation in March 1995 due to their buyout by ING in the wake of the Barings bankruptcy. Staff met with Barings in their London offices on July 27, 1995 to discuss the impact of the ownership change on the operation of the firm. While circumstances could change in the future, staff believes the ownership change has had little impact on the investment philosophy of the firm. Staff turnover since the change has been only marginally higher than normal averages and the client based has remained stable. Staff recommends that Barings be removed from probation at this time but will continue to monitor the organization closely over the next year.

Performance attribution relative to EAFE for the quarter is shown below:

	Mar. - Jun. 1995
Country selection*	-0.37
Stock selection*	0.03
Currency effect	0.26
Hedging activity	-0.40
Total Value Added to EAFE	-0.48

Source: State Street Analytics * in local currency

Manager Commentary
Brinson Partners, Inc.

Period Ending:	6/30/95	Returns	Qtr.	Year
Total Firm Assets Under Management	\$40.0 Billion	Actual	3.3%	0.9%
Total Firm Assets Managed in this Discipline	\$ 9.1Billion	Benchmark	0.8%	1.7%

1. *Past Performance. Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?*

Market allocation was strongly positive both in the second quarter and for the full year. The portfolio benefited in both time periods from its underweight in the weak Japanese market, which fell -6.86% for the second quarter and -23.73% for the year in dollar-hedged terms. Holding strategic cash also added to returns for the full year, during which the MSCI Non-US markets returned -6.35% in dollar-hedged terms. Overweighting the better performing markets including Australia, Canada, the Netherlands, the UK and New Zealand also added value during both time periods.

Currencies added considerable value during the second quarter, but detracted significantly for the one year time period, accounting for all of the one year underperformance. The principal negative in both periods was the lack of exposure to the Yen, which gained 12.35% during the year and was essentially flat, at 0.59% for the quarter. Other important negatives for the year were the overweights of the US and Canadian dollars, which both weakened against most other currencies. In contrast, the Canadian dollar strengthened in the second quarter, adding value to the portfolio, as did overweights of several peripheral currencies.

2. *Future Strategy. What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.*

At the end of the first quarter, the cash position was reduced from 8% to 5%, reflecting the recent weakness of the non-US market. Despite these declines, most non-US equity markets remain overvalued, albeit to varying degrees. The reduction in cash was used to increase exposure to Japan, reducing the relative underweight of Japanese equities in the portfolio. As of June 30, 1995, the allocation to Japan was 9% below the benchmark weight. Although the valuations for Japan have improved, this market remains overvalued.

Several changes were also made to currency allocation strategies. The yen exposure was reduced to zero, while some profit-taking in the Canadian dollar led to a 5% reduction, which was shifted to the US dollar. We continue to believe that the US and Canadian dollars offer the most attractive return potential, while the yen is severely overvalued.

Currently, the portfolio holds no yen, representing a yen currency underweight of 39%. The portfolio also maintains a minimal exposure to the overvalued ERM currencies, which weakened slightly against the dollar during the second quarter, but became even more expensive over the course of the year. To offset these underweights, the portfolio maintains overweights in the more attractively priced North American currencies. The current strategy allocates 17.6% to the Canadian dollar and 37% to the US dollar.

Brinson (con't)

3. *Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

There have been no significant organizational changes and no turnover of our senior investment professionals in this past year.

In the second quarter of 1995, Brinson Partners lost one Non-US equity client with \$47 million and gained none.

4. *Other Comments. Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

At the beginning of April, Anthony W. Robinson returned to Brinson Partners from a two-year leave of absence (family health reasons) to work closely with Rich Carr on international investment strategy. Tony originally joined our firm in 1979, playing an important role in developing many of our international investment tools and techniques. We are delighted to have Tony back.

Staff Comments

Performance attribution relative to EAFE for the quarter is shown below:

	Mar. - Jun. 1995
Country selection*	1.42
Stock selection*	-0.36
Currency effect	0.22
Hedging activity	1.35
Total Value Added to EAFE	2.65

Source: State Street Analytics * in local currency

Manager Commentary
Marathon Asset Management

Period Ending:	6/30/95	Returns	Qtr.	Year
Total Firm Assets Under Management	\$3.0 Billion	Actual	1.2%	-2.6%
Total Firm Assets Managed in this Discipline	\$1.4Billion	Benchmark	0.8%	1.7%

1. *Past Performance.* Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?

The portfolio marginally outperformed in the second quarter of 1995, rising 1.18% versus a 0.77% rise in the MSCI EAFE Index. The underweighting of hard currency Europe (Germany and Switzerland) was offset by the strength of Finland (where the index's 34.5% rise was driven by the 60% surge in Nokia, the Funds' best performing share in the quarter) and Sweden whilst stock returns turned positive as cyclicals rebounded as a more optimistic consensus on global growth developed. Benefits from the underweighting of Japan were more than offset by disappointing stock returns arising from the portfolios bias towards mid-caps and economically sensitive sectors: the yen currency hedge was broadly neutral over the quarter.

2. *Future Strategy.* What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.

Marathon's overall portfolio strategy remains based on the belief that we are entering a "normal", late cycle stage of a global growth cycle. Slower growth, a resultant more accommodative monetary policy, and continued corporate earnings expansion provide the basis for a benign investment environment that has historically argued for beneficiaries of supply-side shortages. Such logic is currently focused heavily on the technology area but as the cycle matures cyclicals and commodity-related areas should enjoy their decadal day in the sun. Two interacting considerations furthermore argue that the trend this cycle may be more prolonged than normal: firstly the emergence of new demand centres in the emerging world, and secondly the extreme reluctance of corporate management in the west to invest. The former demand-based issue has already been well covered, with even the Chairman of Volkswagen (from an ecological perspective) urging the Chinese to bring in controls on auto ownership. The latter however, which is of particular appeal to Marathon's investment philosophy, remains less analyzed and far more difficult to discount. We are seeing the re-emergence via a more active shareholder mentality of the link between corporate decision-making, corporate cash flow and the interests of shareholders. The breakdown of this link (arising largely from the post-war institutionalization of share ownership) produced a pattern of managerial decision-making over the last thirty years that consistently saw maximum potential returns to shareholders eroded (or destroyed) by the new managerial economics of growth, prestige (arising most notably from technological prowess) and job preservation. The impact of a re-emergence of active shareholders on managerial decision making will be profound (more risk averse, shorter time horizons, more returns driven?) and is already witnessed in the ongoing reluctance of management to invest.

Marathon (con't)

Corporate America, which is later in the cycle than Europe or Japan, should (according to previous cycles) be investing heavily but instead insists on raising dividends, buying back shares, or buying existing assets. A similar pattern is likely to emerge in the rest of the developed world, and whilst capacity will gradually come through in the new demand centres the old relationship (rising corporate cash flow = rising investment) has gone. Marathons' portfolios remain then heavily biased towards potential beneficiaries of tightness in supply and an accompanying increase in producer pricing power at the macro (Australia, South Africa), sectoral (metals, soft commodities, oil refining) and stock levels.

3. *Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

Personnel: NA

Accounts Gained: 1

Accounts Lost: N/A

4. *Other Comments. Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

A yen currency 12 month forward sale for US \$19.3 million expired on 21/07/95 and will not be reinstated until the political situation in Japan has been clarified. As a result, the Fund's yen hedge has been reduced to 15% from 32% of the yen exposure.

Staff Comments

Staff met with Marathon at their London offices on July 26, 1995. The discussion largely confirmed the strategy points in this commentary. Staff continues to monitor Marathon's growth in assets and clients. To date, the growth in business has not appeared to adversely impact the firm.

Performance attribution for the quarter relative to EAFE is shown below:

	Mar. - Jun. 1995
Country selection*	1.23
Stock selection*	-0.70
Currency effect	0.38
Hedging activity	-0.38
Total Value Added to EAFE	0.54

Source: State Street Analytics * in local currency

Manager Commentary
Rowe Price-Fleming International

Period Ending:	6/30/95	Returns	Qtr.	Year
Total Firm Assets Under Management	\$20.1 Billion	Actual	5.0%	5.6%
Total Firm Assets Managed in this Discipline	\$13.1 Billion	Benchmark	0.8%	1.7%

1. *Past Performance.* Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?

First Quarter:

Country allocation contributed approximately 60% of the value-added for the quarter with half of the coming from overweightings in South East Asia and Latin America and the other half coming from underweighting Japan.

Stock selection contributed the other 40% with Europe recovering strongly with companies showing steady earnings growth doing particularly well. Returns from our Japanese stock selection were helped along by the fact that bank stocks (where we have no exposure) drifted while technology-related areas (where we are overweight) strengthened. Medium-sized and smaller companies began to show signs of life towards the end of the quarter and, as a result, also assisted returns.

On the currency front, we have no hedges in the portfolio at present.

2. *Future Strategy.* What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.

Current position and outlook

With valuations more attractive, bond markets unlikely to be a negative, and earnings momentum reasonable, we see continued progress ahead in international markets. The “growth” markets in the Pacific and Latin America have had a difficult eighteen months but should maintain their recently improved tone. Japanese valuations look less stretched than for some time but investors will need to be selective. Europe looks good solid value.

Rowe Price (con't)

3. *Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

There have been no changes in the ownership of RPFI.

During the quarter, Mark Bickford-Smith has joined the investment team in London. Mark joins us from one of our parent companies, Jardine Fleming in Hong Kong, where he worked since 1988.

During the second quarter, RPFI gained two new accounts with fully international mandates. We also manage the T. Rowe Price Emerging Market Stock Fund launched in April of this year.

4. *Other Comments. Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

None.

Staff Comments

Staff met with RPFI in their London offices on July 27, 1995. The discussion largely confirmed the strategy points in this commentary. The addition of the emerging markets fund referenced in #3 should not have an adverse impact on the existing portfolios and may provide the SBI with a cost effective vehicle for increasing emerging markets' exposure within the portfolio. Additional analysis is necessary before any change can be recommended to the IAC/SBI.

Performance attribution relative to EAFE for the quarter is shown below:

	Mar. - Jun. 1995
Country selection*	3.40
Stock selection*	0.60
Currency effect	0.35
Hedging activity	0.00
Total Value Added to EAFE	4.37

Source: State Street Analytics * in local currency

Manager Commentary
Scudder, Stevens and Clark

Period Ending:	6/30/95	Returns	Qtr.	Year
Total Firm Assets Under Management	\$90.0+Billion	Actual	6.7%	6.1%
Total Firm Assets Managed in this Discipline	\$ 8.0 Billion	Benchmark	0.8%	1.7%

1. **Past Performance.** *Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?*

Your account gained 6.7% in the second quarter, outperforming the benchmark EAFE index which rose 0.8%. On a year-to-date basis, your account is up 5.5% vs. 2.6% for EAFE. For the last 12 months, your account is up 6.1% vs. 1.7% for EAFE.

The single largest contributor to the out-performance was the decision to underweight Japan in favor of Europe, more specially the core European countries (Germany, Netherlands and Switzerland). Stock selection in Europe was also a net plus. We moved out of cyclical and into interest rate sensitive stocks and pharmaceuticals.

2. **Future Strategy.** *What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.*

We continue to remain underweight in Japan. We have seen some signs of a possible turnaround (a slight weakening of the yen, some proposed regulatory changes and a lowering of interest rates) but it still too soon to tell if this marks the start of a fundamental change.

We remain overweight in Europe and feel the portfolio is well positioned there. The European economies are expected to continue growing but at a slower pace. As the pace of growth slows the likelihood of interest rate cuts increases. In that environment sectors such as pharmaceuticals and interest rate sensitive areas (banks, utilities, insurance companies) should do well.

We are also moving more money selectively into Southeast Asian markets, where economic growth continues to proceed at breakneck pace.

Scudder (con't)

3. *Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

Changes in Personnel: Left: Evelyn Kendall (European Analyst)
Doug Loeffler (European Analyst)

Added: Theresa Guzman (Southeast Asian Analyst)
Jennifer Bloomfield (Southeast Asian Analyst)

Accounts Gained: 11
Accounts Lost: 1

4. *Other Comments. Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

None.

Staff Comments

The 11 accounts gained went into their commingled trust fund (not separate accounts). Account values ranged from \$3-35 million.

They will be hiring a replacement European analyst. This area is being covered by a remaining European analyst and other analysts with European experience.

Performance attribution relative to EAFE for the quarter is shown below:

	Mar. - Jun. 1995
Country selection*	4.22
Stock selection*	1.42
Currency effect	0.14
Hedging activity	-0.04
Total Value Added to EAFE	5.76

Source: State Street Analytics * in local currency

Manager Commentary
Templeton Investment Counsel, Inc.

Period Ending:	6/30/95	Returns	Qtr.	Year
Total Firm Assets Under Management	\$48.6 Billion	Actual	8.4%	12.2%
Total Firm Assets Managed in this Discipline	\$14.7Billion	Benchmark	0.8%	1.7%

1. *Past Performance.* Summarize your performance over the last quarter and year. Specifically, what active bets did you make relative to your benchmark? Which of these bets worked/did not work and why?

The portfolio outperformed the MSCI EAFE index this quarter by a wide margin and is now ahead of the index on a one-year rolling basis. Portfolio performance for the recent quarter (relative to the index) benefited from a continued underweighting in Japan and an overweighting in emerging markets. Currency also had a limited effect because our investment style does not include currency speculation/overlays.

2. *Future Strategy.* What active bets are in place at the present time relative to your benchmark? Summarize the rationale for making these active bets.

Our investment strategy remains unchanged. We employ a value, stock-picking approach that generally results in low turnover. The portfolio's bets therefore, do not change significantly from quarter to quarter. The portfolio remains underweighted in Japan and overweighted in Europe. Additionally, the portfolio's emerging markets exposure should remain at current levels with some selective buying. Finally, although the number of holdings has marginally increased, country diversification continues to expand into new markets that include, for example, the Czech Republic.

Templeton (con't)

3. *Organizational Issues. Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.*

No ownership changes during the last quarter. One portfolio manager resigned to pursue other interests. There were no clients lost for the quarter ending June 30. New business relationships showed a gain of 38 accounts and \$124.7 million in assets.

No gains and no losses.

4. *Other Comments. Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.*

No additional comments at this time.

Staff Comments

The 38 accounts were added to their institutional mutual fund. None of these accounts were a separate mandate.

Performance attribution relative to EAFE for the quarter is shown below:

	Mar. - June 1995
Country selection*	7.50
Stock selection*	0.36
Currency effect	-0.11
Hedging activity	-0.01
Total Value Added to EAFE	7.75

Source: State Street Analytics * in local currency

Manager Commentary
State Street Global Advisors

Period Ending:	6/30/95	Returns	Qtr.	Year
Total Firm Assets Under Management	\$170.0 Billion	Actual	1.6%	2.4%
Total Firm Assets Managed in this Discipline	\$ 29.0 Billion	Benchmark	0.8%	1.7%

1. *Past Performance.* Summarize your performance over the last quarter and year. Specifically, explain the reasons for the tracking error between the portfolio and the index.

In the second quarter, the account outperformed primarily because of higher dividend payments received in several European countries than included in the benchmark calculation. For the year, the portfolio outperformed the benchmark due to SBI's lower dividend withholding tax rate than used in the calculation of the MSCI EAFE index.

2. *Organizational Issues.* Describe any significant ownership or personnel changes at the firm over the last quarter. List accounts gained and lost in this discipline over the same time period.

To meet the needs of our Southeastern client base, SSGA opened an office in Atlanta, Georgia on June 1, 1995. Stuart Peskin, of our International Structured Products Group (ISGP) in Boston, will represent SSGA in Atlanta. Stuart's role will include marketing and client service, and he will continue to be the portfolio manager for a limited number of ISPG clients in the region. He will also interact with ISPG for R&D efforts in emerging markets.

Stuart's responsibilities on the SBI account were assumed by Lynn Blake, Vice President, who had been acting as "back-up" portfolio manager during the past year.

During the second quarter, we lost two EAFE index clients with total assets of \$92 million. No new EAFE index clients were added, however, existing clients contributed over \$500 million, while total in-flows to non-U.S. equity index funds approached \$2.8 billion.

State Street (con't)

3. *Other comments.* Highlight any other issues/events that are pertinent to the management of the SBI account at your firm.

No changes have been made.

Staff Comments

Lynn Blake had responsibility for managing Barings' use of the State Street's country funds in Barings active country/passive stock strategy before assuming responsibility for the SBI's EAFE index fund. Staff will monitor the portfolio's progress to ensure this portfolio manager change does not have an adverse affect.

Performance attribution relative to EAFE for the quarter is shown below:

	Mar. - Jun. 1995
Country selection*	-0.11
Stock selection*	0.43
Currency effect	0.58
Hedging activity	0.00
Total Value Added to EAFE	0.90

Source: State Street Analytics * in local currency