

**MINNESOTA STATE BOARD
OF INVESTMENT
MEETING
September 9, 1992
&
INVESTMENT ADVISORY
COUNCIL MEETING
September 8, 1992**

**AGENDA
STATE BOARD OF INVESTMENT
MEETING**

Wednesday, September 9, 1992

8:30 A.M. - Room 125

State Capitol

Saint Paul

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STATE BOARD OF INVESTMENT

Minutes State Board of Investment June 3, 1992

The State Board of Investment (SBI) met at 9:00 A.M. on Wednesday, June 3, 1992 in Room 125, State Capitol, St. Paul, Minnesota. Governor Arne H. Carlson, Chair; Secretary of State Joan Anderson Growe; State Treasurer Michael A. McGrath; State Auditor Mark B. Dayton; and Attorney General Hubert H. Humphrey III were present.

Mr. Carlson called the meeting to order and the minutes of the March 19, 1992 meeting were approved.

Executive Director's Report

Mr. Bicker, Executive Director, announced the retirement of his secretary, Harriet Balian, from the SBI and then referred Board members to Tab A of the meeting materials. He stated that the Basic Funds had exceeded the inflation rate over the last ten years (Basics Total Fund 14.3%, Inflation 4.0%) and outperformed the composite index over the five year period (Basics Total Fund 9.6% and Composite 9.1%). He added that the Basics had underperformed the median fund for the most recent five year period (Basics-excluding alternative assets 9.7%, Median 10.0%). He added that the Post Fund benefit increase information and the actuarial data were the same as the previous quarter.

Mr. Bicker stated that the Basic Funds remained approximately the same size in market value for the quarter ending March 1992. He added that the asset mix changed due to the rebalancing that occurred during the quarter. He reported that the Basic Funds had outperformed both the composite index and the median fund for the quarter (Basics Total Fund -0.5% vs. Composite -1.3%; Basics-excluding alternative assets -1.0 vs. Median -1.7%) and year (Basics Total Fund 14% vs. Composite 11.0%; Basics-excluding alternative assets 13.5% vs. Median 11.7%). He stated that the stock segment exceeded its target for the quarter (Basic stocks -1.1% vs. Wilshire 5000 Adjusted -1.5%), and year (Basic stocks 14.0% vs. Wilshire 5000 Adjusted 13.3%), while the bond segment had slightly underperformed its target for the quarter (Basic bonds -1.3% vs. Salomon Broad Index -1.2%), but had outperformed it for the year (Basic bonds 12.3% vs. Salomon BIG 11.7%).

Mr. Bicker directed members to the Post Retirement Fund summary. He stated that the fund decreased in value by 2.2% during the first quarter, due to withdrawals and negative bond performance. Mr. Bicker reported that the stock segment outperformed its benchmark for the quarter (Post stocks 5.1% vs. Benchmark 2.8%) and outperformed by a significant margin for the year (Post stocks 19.7% vs. Benchmark 16.1%).

Mr. Bicker noted that the Assigned Risk Plan (ARP) had slightly underperformed its composite for the quarter (ARP -0.9% vs. Composite -0.8%) and had matched its

composite index for the year (ARP 9.3% vs. Composite 9.3%). In conclusion, he stated that as of March 31, 1992, the SBI was responsible for \$18.7 billion in assets.

Executive Director's Administrative Report

Mr. Bicker referenced the budget update for FY92, travel information and legislative information found in Tab C. He stated that the SBI had a budget reduction which would be discussed further in the Administrative Committee Report. He reported that the SBI's administrative bill was passed by the 1992 Legislature, enabling the SBI to: amortize realized gains and losses over a ten year period in the Permanent School Fund and Environmental Trust Fund, change the administrative fees in the Supplemental Investment Fund from a front-end load to an asset-based charge, change the name of the Guaranteed Return Account in the Supplemental Fund to the Fixed Interest Account; and invest in medium-term debt securities called deposit notes and purchase alternative or synthetic GIC's.

Mr. Bicker noted that the legislation changing the Post Retirement Fund would be discussed later in the meeting and reported that the State Auditor's bill eliminated the SBI's authority to buy non-rated debt. Mr Bicker stated that the Administrative Committee Report would also discuss how the SBI would respond to legislation that requires the SBI to select insurance companies to provide 403(b) annuities for teachers statewide.

He also reported that the Proxy Voting Committee passed a resolution that states that the Committee will be making a policy recommendation to the Board on the issue of executive compensation. Mr Humphrey stated that he has a proposed resolution regarding executive compensation that he would like the Proxy Voting Committee to consider

Administrative Committee Report

Mr McGrath presented the report from the Administrative Committee. He outlined the first four of the Committee's recommendations which are to approve the Executive Director's Work Plan for FY93; approve the FY93 Administrative Budget Plan; approve the FY94-95 Biennial Budget Request, and approve the Continuing Fiduciary Education Plan. In response to a question from Ms Growe, Mr. Bicker confirmed that the FY94-95 budget request is only preliminary one and that it is a "same level" request.

Mr. McGrath continued by stating that the Committee was recommending that the Board adopt a process for the Executive Director's FY92 Evaluation as stated in the meeting materials, which is the same process as used during the previous year. Mr Dayton stated that he is uncomfortable with the practice of having the Commissioner of Finance review the evaluations with the Executive Director. He added that since the Executive Director reports to the Board, the review should be conducted by someone on the Board. Ms. Growe pointed out that Board members have had the option to meet with the Director individually in addition to preparing a written evaluation. Mr. Humphrey said he thought the past process had worked well but said he thought the Auditor's point was well taken. Mr. Carlson stated that originally it was decided that the Governor, as Chair of the Board,

would assign a staff person to do the compilation work. He added that he would be agreeable to a change if another Board member wanted to volunteer staff to assume that role. Mr. Dayton requested that the Administrative Committee address the issue at a future date. Mr. McGrath stated it would be added to the Committee's next agenda for discussion.

Mr. McGrath stated that the Committee was also recommending that the contracts with State Street Bank and Wilshire Associates be amended to provide for appropriate custody and management of assets in the Post Retirement Fund. Mr. Dayton stated his support of the recommendation but said he would like to have the Wilshire contract formally reviewed in the future. Mr. McGrath outlined the recommendations to establish both the 403(b) Vendor Review Committee and Deferred Compensation Vendor Review Committee.

Mr. McGrath moved approval of all the Committee's recommendations, as stated in the Committee Report. The motion passed.

Consultant Review Committee

Mr. Sausen reported that the Committee had worked with staff to send out a request for proposal (RFP) for consulting services. He stated that eleven (11) firms responded to the RFP and that five (5) firms were interviewed, including Richards & Tierney, the Board's existing consultant. Mr. Sausen said it was the recommendation of the Committee to retain Richards & Tierney as a general consultant, with Pension Consulting Alliance (PCA) to be retained for international consulting services.

In response to a question from Ms. Growe, Mr. Sausen stated that acceptance of this recommendation would not preclude the Board from hiring another consultant in the future. Mr. Dayton stated that he would prefer to see PCA hired as a general consultant in addition to Richards & Tierney so that the Board could benefit from additional perspective. Mr. McGrath moved approval of the Committee's recommendation, as stated in the Committee Report. Mr. Humphrey seconded. The motion passed (Mr. Dayton requested to be recorded as a "no" vote.)

Investment Advisory Council Committee Reports

Asset Allocation Committee Report

Ms. Yeomans referred Board members to the Committee Report for a summary of the proposed implementation plan for the international equity program. She stated that the Committee's revised recommendation (see Attachment A) is that a search committee should be convened as soon as practicable to begin a search for passive and active managers and that the SBI adopt an implementation plan for international equity investing in the Basic Retirement Funds after the consultant has had the opportunity to give the Board its input.

In response to a question from Mr. Humphrey, Mr. Bicker stated that if the Board approves the recommendation, the earliest the money could be deployed to a manager

would be October 1992. He stated that a manager recommendation would need to be approved at the September meeting for that to occur. Mr. Humphrey noted that the director of the Minnesota AFL-CIO had raised a question about the Board's action in this area and asked if there would be adequate time to hear their concerns. Mr. Bicker confirmed that recommendation is to authorize a search committee, not to deploy assets at this time. Mr. Dayton asked what would be lost if the authorization were postponed until the new consultant had an opportunity to comment on the implementation plan. He noted that the international markets are showing negative returns over recent periods. Ms. Yeomans said that the downturn offers the SBI a favorable opportunity to "buy low." She added that she expected the international allocation to be funded over time but that it was important in the IAC's view to get the process moving. Ms. Growe said she attended the IAC meeting on June 2 and had been assured that the IAC felt it was appropriate to begin the search process. She added that Mr. McGrath had received a letter from Mr. Emkin of PCA which also said the Board should proceed. Ms. Growe moved approval of the Committee's revised recommendation. Mr. McGrath seconded the motion. The motion passed (Mr. Dayton requested to be recorded as a "no" vote.)

Ms. Yeomans stated that the second action item from the Committee deals with revising the asset allocation in the Post Retirement Fund in response to the change in the benefit increase formula. She stated that the Committee's recommendation is for asset allocation targets of 50% domestic stocks, 47% domestic bonds, and 3% cash equivalents. In response to a question from Mr. Carlson, Ms. Yeomans stated that initially there would not be an international component in the Post Fund. In response to a question from Mr. Humphrey, Ms. Yeomans referred Board members to the risk and return characteristics of various asset allocation alternatives, as shown in the meeting materials. She stated that a 60% bond and 40% stock allocation would typically produce a lower projected return. Mr. McGrath said that he had struggled with this proposal but after discussion with the Executive Director and the Consultant he had concluded that the Post Fund does need a more aggressive asset allocation in order to finance benefit increases. Therefore, he said he agreed with the Committee's proposal and he moved approval of the recommendation, as stated in the Committee Report. Mr. Carlson seconded the motion. The motion passed.

Stock and Bond Manager Committee Report

Ms. Yeomans stated that the full IAC had a discussion regarding the SBI's liquor and tobacco restrictions and that the IAC voted to recommend to the Board that the restriction on investments in companies deriving 50% or more of their revenues from liquor and tobacco be dropped. She added that the IAC believes that from a fiduciary standpoint, it is not in the best interests for the funds to operate with this restriction. Mr. Dayton stated that he would prefer to see returns for both the actual Wilshire 5000 and the Wilshire 5000 adjusted for liquor and tobacco restrictions. He added that he was open to analysis of the restriction and implementation of the policy. Ms. Growe said she would like to refer this issue to another committee of the Board for review. After further discussion, she moved to refer the issue to the South Africa Task Force (also known as the Task Force on Divestment). Mr. McGrath seconded the motion. The motion passed.

Ms. Yeomans reported that an in-depth review had been conducted of Lieber & Company and that staff and the Committee had endorsed some minor modifications to the active stock and bond manager contract guidelines.

She stated that the Committee was recommending approval of 12 month contract extensions for five of the active stock managers. Mr. Humphrey moved approval of the recommendation, as stated in the Committee Report. Ms. Growe seconded. The motion passed.

Mr. Dayton requested that an in-depth review be conducted on Lehman Ark during the next quarter due to the firm's lagging performance. Mr. Bicker agreed that a review would be done. In response to a question from Mr. Dayton, Mr. Bicker stated that all contracts have the standard 30 day termination clause. Mr. Humphrey moved approval of the Committee's recommendation for 12 month contract extensions for the bond managers, as stated in the Committee Report. Mr. McGrath seconded. The motion passed.

Ms. Yeomans stated that the next recommendation involves bond manager allocation guidelines and referred Board members to the position paper included in the meeting materials. Mr. Dayton moved approval of the recommendation, as stated in the Committee Report. Mr. Humphrey seconded. The motion passed.

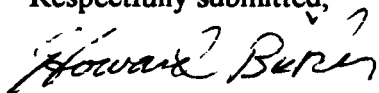
Ms. Yeomans stated that per a previous request from Mr. Dayton, staff had reviewed the return expectations for domestic stocks, international stocks and domestic bonds. Mr. Dayton expressed his appreciation that the review had been done and requested that further analysis be done to examine over-all total fund returns. He added that he felt the SBI should still set its sights higher than achieving the median return or explain why that may not be possible. Ms. Yeomans confirmed that the Stock and Bond Manager Committee would address the issue.

Alternative Investment Committee

Ms. Yeomans reported that the Alternative Investment Committee had also reviewed the return expectations for private equity and real assets. Mr. Humphrey moved approval of the return expectations as listed in the meeting materials for domestic stocks, domestic bonds, international stocks, and alternative assets. Mr. Dayton seconded. The motion passed.

With reference to a previous agenda item, Mr. Humphrey stated that in his opinion, a lot of time should not be spent on the liquor and tobacco restriction issue unless the Board is going to seriously consider changing its policy. Mr. Carlson adjourned the meeting at 9:45 A.M.

Respectfully submitted,



Howard J. Bicker
Executive Director

**AGENDA
INVESTMENT ADVISORY COUNCIL
MEETING**

**Tuesday, September 8, 1992
2:00 P.M. - SBI Conference Room
Room 105, MEA Building
Saint Paul**

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| 1. Approval of Minutes of June 2, 1992 | |
| 2. Report from the Executive Director (H. Bicker) | |
| A. Quarterly Investment Review (April 1-June 30, 1992) | A |
| B. Portfolio Statistics (June 30, 1992) | B |
| C. Administrative Report | C |
| 1. Budget Reports | |
| 2. Travel Report | |
| 3. Report from the Proxy Voting Committee | D |
| 4. Report from the 403(b) Vendor Review Committee | E |
| 5. Reports from the Investment Advisory Council | |
| A. Alternative Investment Committee (D. Veverka) | F |
| 1. Results of Annual Review Sessions | |
| 2. Status of First Reserve | |
| 3. Approval of Commitments to Private Equity Managers
(Churchill Capital, Great Northern Capital Management,
ChiCorp Management III, Inc.) | |
| B. Stock and Bond Manager Committee (J. Eckmann) | G |
| 1. Review of Manager Performance | |
| 2. In-depth Review of Franklin Portfolio | |
| 3. In-depth Review of Lehman Ark | |
| 4. Review of Candidates for the Equity Manager Monitoring Program | |
| 6. International Investing Issues | |
| A. Report from the Asset Allocation Committee (J. Bohan) | H |
| 1. Review of Consultant Comments on Position Paper | |
| 2. Consideration of Revised Position Paper | |
| B. Report from the International Index Manager Search Committee | I |

**Minutes
Investment Advisory Council Meeting
June 2, 1992**

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

Members Present: David Bergstrom; Jim Eckmann; Elton Erdahl; Laurie Fiori Hacking; David Jeffery; Keith Johnson; Peter Kiedrowski, Han Chin Liu; Malcolm McDonald; Gary Norstrem; Barbara Schnoor; Michael Troutman; Deborah Veverka; and Jan Yeomans.

Members Absent: John Bohan; Ken Gudorf; and John Gunyou

SBI Staff: Howard Bicker; Beth Lehman; Jim Heidelberg, Deborah Griebenow; and Harriet Balian.

Others Attending: Gary Austin; Ed Burek; Maureen Culhane, Richards & Tierney, John Gardner; Secretary of State Joan Anderson Growe; Bill Kuretsky, Attorney General's Office; John Hagman; State Treasurer Michael A. McGrath; John Manahan; Mike Ousdigian; Lisa Rotenberg; Peter Sausen; Ed Stuart, Robert Tennesen; Elaine Voss; and Robert Whitaker.

Ms. Yeomans called the meeting to order and said that due to time constraints of various members, the agenda items would not be followed in the normal order.

Asset Allocation Committee Report

Mr. Eckmann stated that through a series of meetings, staff and the Asset Allocation Committee had reached an agreement on an implementation plan for international equities in the Basic Retirement Funds and that staff had prepared a position paper that is included in the meeting materials.

Mr. Eckmann summarized the Committee's recommendation by stating that international stocks would have a return expectation equal to or greater than domestic stocks over the long-term and that the asset class target would be derived from the Morgan Stanley Index of Europe, Australia, and the Far East (EAFE). He noted that the SBI's investment restrictions that would impact the active and passive segments differently; both segments would eliminate securities that U.S. investors are not allowed to own and securities that are affected by the SBI's policy on liquor and tobacco, while the passive segment also would eliminate securities that are affected by the SBI's South Africa policy. He stated that hedging would not occur on the passive portfolio but that opportunistic hedging would be done at a manager's discretion in the active portfolios.

Mr. Eckmann continued by saying that the recommendation for the management structure is two-phased, with the initial structure being 100% passive management and a longer term structure of 50% active management. He stated that this process would provide immediate exposure to the asset class and that an index manager recommendation could be made as early as September 1992, with initial funding occurring in October 1992. He discussed the various strategies for active management that the Committee and staff had agreed on, noting that the strategy of active country/passive stock is now being considered as a form of active management.

Mr. Eckmann concluded by stating that the Committee was recommending that the SBI adopt staff's position paper as its implementation plan for international equity investing in the Basic Retirement Funds and that a Search Committee should be convened as soon as practicable to begin the search for both passive and active managers.

Ms. Growe asked how these recommendations and a separate recommendation to hire a new international consultant fit together. Mr. Eckmann stated that he envisioned using the consultant as a resource for identifying both potential candidates for active and passive managers and to review the process and issues involved in the implementation of an international program. Mr. Bicker clarified that the recommendation really only commits the Board and IAC to beginning the search for a passive manager. Mr. McGrath noted that he felt there were varying opinions among the consultant candidates regarding the most appropriate initial management structure for the international program.

A discussion followed regarding what role a new consultant should have in the process. Ms. Growe said it was her understanding that the Board did not want to hold up the implementation process but that the Board also wanted a new consultant to have the opportunity to provide input on the plan. She said she thought that Board members assumed any new consultant would agree with most or all of the basic elements of the current proposal. Mr. McGrath said that he had asked Allan Emkin from PCA to comment on the proposed timeline. He said Mr. Emkin had provided a written reply that basically endorsed the proposal to proceed with a search for a passive manager at this time. Ms. Yeomans said her personal reaction was that it was premature to ask the Board to adopt a detailed implementation plan before hearing from the new consultant. However, she added that it made sense to begin manager searches as soon as possible given the long lead time involved. As a result of the discussion, Ms. Lehman suggested the following re-wording of the Committee's recommendation:

A Search Committee should be convened as soon as practicable to begin to search for passive and active managers. The Committee recommends that the SBI adopt an implementation plan for international equity investing in the Basic Retirement Funds after the consultant has had the opportunity to give the Board its input.

Mr. McDonald moved approval of the amended recommendation, as stated above. Mr. Eckmann seconded the motion. The motion passed.

Ms. Yeomans invited further discussion on the implementation plan since she said it represents a substantial change from what had been presented previously. Ms. Veverka said that she is interested in getting the consultant's opinion about the appropriate benchmark for the international segment. In response to a question from Ms. Growe, Mr. Eckmann said that the Committee recommended an initial structure of 100% passive management in order to gain exposure relatively quickly. Ms. Yeomans added that 80-90% of the total return of a fund typically comes from being in the right asset class at the right time, so if the SBI can get the broad exposure and the bulk of the benefit first through passive management, then additional manager structure decisions can be made after further analysis. Ms. Rotenberg stated that Mr. Dayton is concerned about needing to make a decision on the international program prior to a full analysis being done by the international consultant. Ms. Yeomans stated that searching for a passive manager would be a waste of time only if the consultant was going to recommend 100% active management. Mr. Bicker confirmed that all the consultant candidates had indicated that passive management should be a part of the management structure. Mr. Kiedrowski commented that any consultant utilized by the SBI is retained in an advisory capacity only. In response to a comment from Ms. Veverka, Mr. Bicker and Ms. Yeomans confirmed that the allocation would be funded over a period of time.

Mr. Eckmann stated that during the 1992 Legislative Session several changes were made to the Post Retirement Fund benefit increase formula. He said that the proposed asset allocation of 50% domestic stocks, 47% domestic bonds and 3% cash equivalents would increase the equity exposure significantly from the current allocation. He added that over time, the new allocation is expected to increase annual returns by 1.0 to 1.5% annualized. He stated that the Committee debated the appropriate cash position and that the proposed allocation of 3% cash should provide sufficient liquidity to meet three months of benefit payments. Mr. Eckmann stated that the Committee had considered the risk and return characteristics of a range of asset allocation alternatives. He stated that it is the Committee's belief that a 50% allocation to domestic equities is appropriate at this time, with a review of the allocation to be done periodically.

In response to a question from Mr. Troutman, Mr. Eckmann stated that in his opinion, international equities could be considered for the Post Retirement Fund at some point in the future, but that initially it is important to get the international program established in the Basic Retirement Funds in order to gain comfort and confidence in the approach. Ms. Hacking moved approval of the revised asset allocation recommendation for the Post Retirement Fund as stated in the Committee Report. Mr. Kiedrowski seconded the motion. In response to a question from Ms. Veverka, Mr. Bicker stated that real assets are also an asset class that could be incorporated into the Post Fund at some time in the future. The motion passed. In response to another question from Ms. Veverka, Ms. Culhane said the Post Fund is less inflation sensitive than the Basic Funds because of the cap on benefit increases imbedded in the new formula.

In response to a request from Ms. Growe concerning a previous agenda item, Ms. Lehman restated the amended recommendation regarding international equity investing. Ms. Growe confirmed that the directors of the retirement plans that serve on the IAC were part of the unanimous vote to move into international investments

Stock and Bond Manager Committee Report

Mr. Norstrom stated that the Stock and Bond Manager Committee had evaluated the impact of the SBI's liquor and tobacco restrictions and that the Committee had agreed with staff's proposal that the Wilshire 5000 returns be adjusted to reflect these restrictions in reports to the Board. He reported that the stock managers had slightly underperformed their benchmarks for the quarter, but had outperformed the Wilshire 5000 Adjusted. He added that the stock managers had outperformed both their benchmarks and the Wilshire 5000 Adjusted for the year. In response to a question from Mr. McGrath, Mr. Bicker stated that both the adjusted and unadjusted Wilshire 5000 returns would be presented, at least on an annual basis, in the future.

Mr. Norstrom reported that an in-depth review had been completed on Lieber and Co. and that both staff and the Committee were recommending that Lieber continue to be retained as a manager. He summarized two minor changes to the active stock and bond manager contract guidelines and updated members on some rebalancing that took place in the Basic Retirement Funds. He added that during the next quarter, staff will begin the annual solicitation of new equity manager candidates from the Board, IAC and consultant for the Manager Monitoring Program.

Mr. Norstrom stated that several annual contracts with stock and bond managers expire on June 30, 1992. He moved approval of the Committee's recommendation, as stated in the Committee Report, to extend the contracts for the managers listed for another twelve months. Mr. McDonald seconded the motion. In response to a question from Ms. Rotenberg, Mr. Bicker explained that Lehman Ark had experienced some turnover in staff due to an internal management buyout. He stated that the current portfolio manager has only been in place a short while and that his style of management has been out of favor recently. Mr. Norstrom added that the Committee felt the SBI should be cautious about not terminating managers prematurely. The motion passed.

Mr. Norstrom summarized the main points of the proposed bond manager allocation guidelines. He pointed out that the recommendation stipulated no constant rebalancing since it would likely add little or no value because of the managers' similar investment styles. Mr. Norstrom moved approval of the Committee's recommendation, as stated in the Committee Report, for the bond manager allocation guidelines. Ms. Schnoor seconded the motion. The motion passed.

Mr. Norstrom asked Mr. Bicker to comment on the return expectations. Mr. Bicker stated that at the last Board meeting, Mr. Dayton had requested staff to delineate and review the return expectations for each asset class. He noted that a breakdown of the information is included in the meeting materials. Mr. Bicker explained that all of the

consultant candidates were asked to comment on the return expectations and that the SBI's expectations were in line with their responses. Mr. Norstrom amended the Committee's recommendation by deleting the last sentence of the recommendation pertaining to the return expectations for cash equivalents. He then moved approval of the amended recommendation. Mr. McDonald seconded the motion. Ms. Veverka requested that the motion and recommendation be amended to include language that would indicate that the evaluation would be done over a five year time period. The motion passed, as amended.

Mr. Bergstrom suggested that the liquor and tobacco restriction issue be reviewed or opened up for discussion. Mr. Kiedrowski made a motion that the IAC recommend to the Board that the IAC should review the current liquor and tobacco restriction and report back to the Board at the September meeting. Mr. Bergstrom seconded the motion. A discussion followed regarding the history of the SBI's policy, the impact the restrictions have on returns, and what recommendation, if any, would be appropriate for the IAC to make to the Board. Several members commented that the restriction is costing the SBI money. Mr. Bicker said that while the impact of the restrictions has been negative during the 1980's, it is not possible to say the impact will continue to be negative in the 1990's. Ms. Yeomans asked members to comment on the exiting policy from an investment perspective. Mr. Jeffery said the Council's first concern should be maximum benefit to beneficiaries. Mr. Johnson said the Board ought to be aware of the financial impact of the restrictions so they can act on it. Mr. Kiedrowski commented that the issue is clearly philosophy versus investment. Ms. Veverka said she thought the investment managers retained by the SBI ought to judge whether they expect a return from an area of the market. Ms. Yeomans clarified that a motion and a second had been made for the IAC to recommend to the Board that the restriction on investments in companies deriving 50% or more of their revenues from liquor and tobacco be dropped. Mr. Troutman said he would vote against the motion. He said that, theoretically, any restriction is a cost but he would not be persuaded that it is likely to be a measurable cost in the future based on the available data. The motion passed.

Consultant Review Committee Report

Mr. Sausen reported that a request for proposal (RFP) for consulting services had been prepared and sent to twenty-seven (27) firms, eleven (11) of which responded, and that five (5) firms were interviewed by the Committee. He stated that the recommendation of the Committee is that the firm of Richards & Tierney be retained again for a four year period to provide basic consultant services and that Pension consulting Alliance (PCA) be hired to advise the SBI on international investing, also with a four year contract. In response to a request from Mr. McDonald, Mr. Sausen summarized the topics discussed with the interview candidates. In response to a question from Ms. Veverka, Mr. Bicker summarized the projected costs of the two contracts. In response to a question from Mr. Norstrom, Mr. Sausen reported that several of the consultant candidates interviewed stated that the benchmarks/value of active management method is a good way to evaluate the performance of the managers and that none of the candidates had any suggestions for an approach that would work better than the one currently in place.

Ms. Rotenberg stated that Mr. Dayton had supported the hiring of two general consultants at the Review Committee meetings. She stated that he feels that Richards & Tierney has done a good job, but that another voice is needed to challenge current strategies, provide expertise in all asset classes, and to give additional support during manager searches. She stated that Mr. Dayton intends to vote against the recommendation at the Board meeting. A discussion followed with Ms. Hacking and Mr. Troutman, IAC representatives on the Review Committee, stating that in their opinion, Richards & Tierney had stood out as the best firm and that PCA had the international expertise that would provide an excellent supplement to Richards & Tierney. Ms. Veverka noted that PCA's role could be expanded in the future if the SBI feels they can add value in additional areas. Ms. Growe asked Ms. Rotenberg to comment on what information the Auditor's office had gathered about the candidates that led to a different conclusion than the rest of the Committee. Ms. Rotenberg said that she and Mr. Dayton felt that PCA was very proactive, more qualitatively oriented and had discussed ideas that had the potential to add value. Ms. Growe asked Ms. Yeomans to comment on Ms. Rotenberg's observation. Ms. Yeomans said she felt it was very difficult for any consulting firm to identify specific ideas or investment strategies that will produce measurable value-added. Mr. McDonald moved approval of the Committee's recommendations, as stated in the Committee Report. Mr. Kiedrowski seconded the motion. The motion passed.

Alternative Investment Committee Report

Ms. Veverka stated that the alternative investment segment of the Basic Retirement Funds is currently at 14%, including unfunded commitments. She added that the majority of the unfunded commitments are in the venture capital area. She reported that annual reviews were completed on six real estate managers, two venture managers and two resource managers and that the meetings went well and produced no surprises.

Ms. Veverka summarized the current return expectations for private equities and real assets. Ms. Veverka moved approval of the Committee's recommendation to endorse the current return expectations, as stated in the Committee Report. Mr. Kiedrowski seconded the motion. The motion passed.

Minutes

The minutes of the March 10, 1992 meeting were approved.

Executive Director's Report

Mr. Bicker announced the retirement of his secretary, Harriet Balian, from the SBI and invited IAC members to an open house in her honor. He then referred members to Tab A of the meeting materials. He stated that the Basic Funds had exceeded the inflation rate over the last ten years (Basics Total Fund 14.3% vs. Inflation 4.0%) and slightly outperformed the composite index over the five year period (Basic Total Fund 9.6% vs. Composite 9.1%). He added that the Basics had underperformed the median fund for the most recent five year period (Basics-excluding alternative assets 9.7% vs. Median 10.0%).

He stated that the Post Fund benefit increase information and the actuarial data were the same as the previous quarter.

Mr. Bicker stated that the Basic Funds were \$8.6 billion in size for the quarter ending March 1992. He added that the asset mix changed due to rebalancing that occurred during the quarter. He reported that the Basic Funds had outperformed both the composite index and the median fund for the quarter (Basics Total Fund -0.5% vs. Composite -1.3%; Basics-excluding alternative assets -1.0% vs. Median -1.7%) and year (Basics Total Fund 14% vs. Composite 11.0%; Basics-excluding alternative assets 13.5% vs. Median 11.7%). He stated that the stock segment exceeded its target for the quarter (Basic stocks -1.1% vs. Wilshire 5000 Adjusted -1.5%) and year (Basic stocks 14.0% vs. Wilshire 5000 Adjusted 13.3%). He said that the bond segment had slightly underperformed its target for the quarter (Basic bonds -1.3% vs. Salomon Broad Index -1.2%) but had outperformed it for the year (Basic bonds 12.3% vs. Salomon Broad Index 11.7%).

Mr. Bicker directed members to the Post Retirement Fund summary. He stated that the fund had a market value of \$6.7 billion as of March 31, 1992. He added that the asset mix of the fund will change over the next several quarters due to legislative changes. Mr. Bicker reported that the stock segment outperformed its benchmark for the quarter (Post stocks 5.1% vs. Post benchmark 2.8%) and outperformed it by a significant margin for the year (Post stocks 19.7% vs. Post benchmark 16.1%).

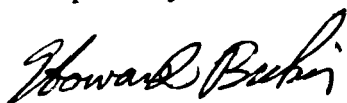
Mr. Bicker noted that the Assigned Risk Plan had slightly underperformed for the quarter and had matched the Composite Index for the year. In conclusion, he stated that as of March 31, 1992, the SBI was responsible for just under \$19 billion in assets.

Mr. Bicker referenced the items covered in Tabs B and C of the meeting materials. In response to a question from Mr. Kiedrowski, Mr. Bicker explained the budget process and how the SBI's budget is billed back to the retirement funds. Mr. Kiedrowski expressed concern that the SBI be allowed to maintain sufficient resources under which to operate and suggested that the IAC may want to watch what happens to the SBI during the upcoming budgetary cycle.

Mr. Bicker reviewed the changes that were passed in the SBI Administrative Bill and summarized other legislative changes that are contained in Tab C of the meeting materials. He discussed the 403(b) vendor selection process and noted the resolution from the Proxy Committee regarding executive compensation. He stated that Tab D contained the Administrative Committee Report, and in the absence of any questions, he concluded his report.

The meeting was adjourned at 3:45 p.m.

Respectfully submitted,



Howard J. Bicker
Executive Director

Tab A

RETURN OBJECTIVES

Basic Retirement Funds

\$8.6 Billion Market Value

	Period Ending 6/30/92 Actual	Compared to Objective
Total Return		
Total Fund over 10 years	14.3%	10.5 percentage points above
<ul style="list-style-type: none"> ■ Exceed inflation by 3-5 percentage points 		
Total Fund over 5 years	9.3%	0.3 percentage points above
<ul style="list-style-type: none"> ■ Exceed composite market index 		
Stocks, Bonds, Cash over 5 years	9.5%	0.5 percentage points below
<ul style="list-style-type: none"> ■ Exceed median fund 		

Post Retirement Fund

\$7.1 Billion Market Value

	Actual	Benefit Increase Provided
Realized Earnings		
Earnings over 1 year (Fiscal Year 1991)	9.3%	4.3% effective Jan. 1, 1992
Earnings over 5 years (Fiscal Years 1987-1991)	10.7%	5.7% annualized

ACTUARIAL VALUATIONS

MSRS, TRA, PERA General Plans

June 30, 1991

	Active (Basics)	Retired (Post)	Total (Basics & Post)
Liability Measures			
1) Current and Future Benefit Obligation	\$14.0 billion	\$5.1 billion	\$19.1 billion
2) Accrued Liabilities	10.0	5.1	15.1
Asset Measures			
3) Current and Future Actuarial Value	\$13.9 billion	\$5.1 billion	\$19.0 billion
4) Current Actuarial Value	6.4	5.1	11.5
Funding Ratios			
Future Obligations vs. Future Assets (3 ÷ 1)	99%	100%	99%
Accrued Liabilities vs. Current Actuarial Value (4 ÷ 2)*	64	100	76*

* 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 74% for the Basics, 100% for the Post and 84% 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

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

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

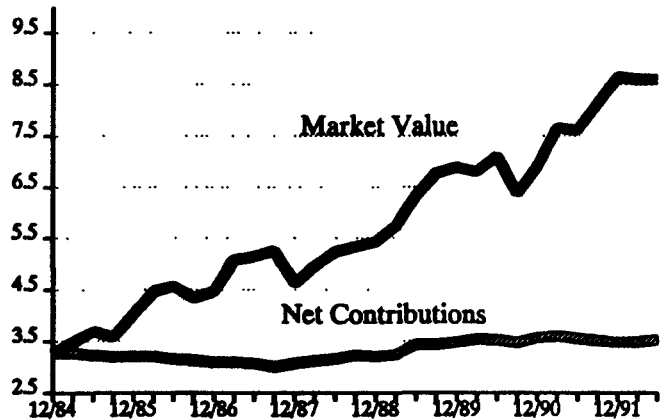
EXECUTIVE SUMMARY

Basic Retirement Funds

Asset Growth

The market value of the Basic Funds essentially remained the same during the second quarter of 1992. There were no material increases or decreases in either net contributions or investment returns.

\$ Billions



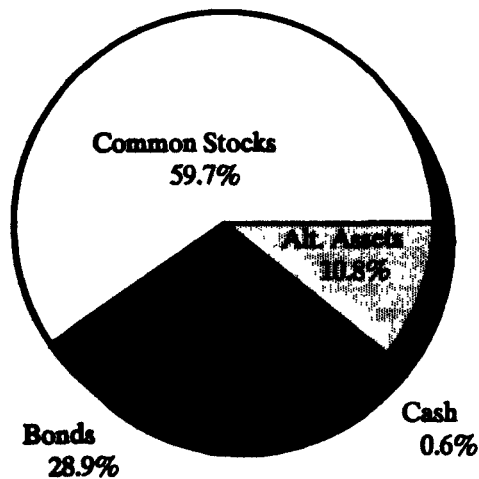
**Asset Growth
During Second Quarter 1992
(Millions)**

Beginning Value	\$8,605
Net Contributions	-35
Investment Return	38
Ending Value	\$8,608

Asset Mix

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

There were few changes to the actual asset mix during the quarter. The bond segment increased slightly due to falling interest rates which caused bond prices to rise.



**Actual Asset Mix
6/30/92**

	Policy Asset Mix	Actual Mix 6/30/92	Actual Market Value (Millions)
Stocks	60.0%	59.7%	\$5,143
Bonds	24.0	28.9	2,489
Alternative Assets	15.0	10.8	926
Unallocated Cash	1.0	0.6	50
	100.0%	100.0%	\$8,608

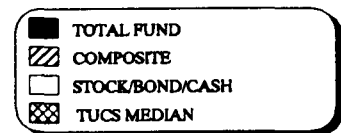
Basic Funds (Con't.)

Total Fund Performance

For the quarter, the total fund with and without alternative assets trailed their respective benchmarks. For the latest year, the Basic Funds exceeded both the market composite and the median fund.

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

PERCENT



Period Ending 6/30/92

	*(Annualized)			
	Qtr.	Yr.	3 Yr.	5 Yr.
Total Fund	0.4%	14.5%	10.6%	9.3%
Composite Index **	0.8	12.2	9.8	9.0
Stocks, Bonds and Cash Only	0.9	14.6	11.0	9.5
TUCS Median Balanced Fund***	1.8	13.4	11.0	10.0

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

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

Stock Segment Performance

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

	(Annualized)			
	Qtr.	Yr.	3 Yr.	5 Yr.
Stock Segment	-0.6%	14.3%	10.6%	8.6%
Wilshire 5000*	0.0	13.6	10.7	8.6

* Adjusted for liquor and tobacco restrictions

Bond Segment Performance

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

	(Annualized)			
	Qtr.	Yr.	3 Yr.	5 Yr.
Bond Segment	3.9%	14.7%	11.0%	10.6%
Salomon Broad Index	4.1	14.2	10.9	10.6

EXECUTIVE SUMMARY

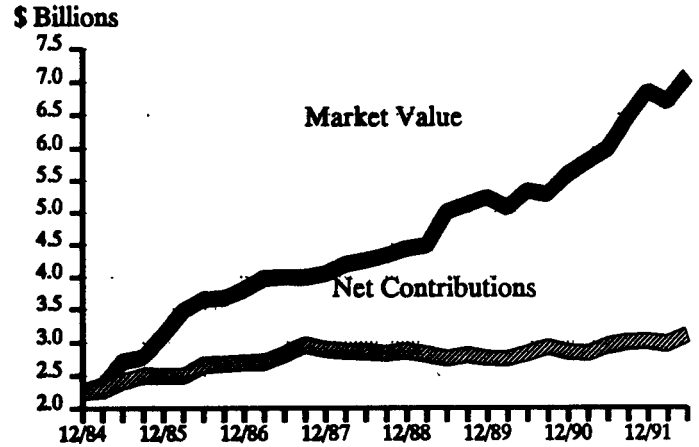
Post Retirement Fund

Asset Growth

The market value of the Post Fund increased by 5.8% during the second quarter of 1992. Assets increased due to positive net contributions and positive bond performance.

Asset Growth
During Second Quarter 1992
(Millions)

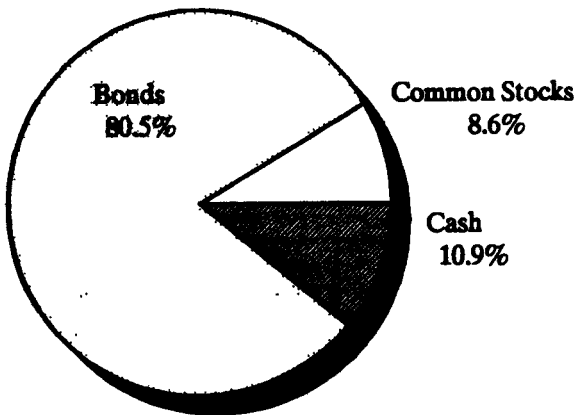
Beginning Value	\$6,701
Net Contributions	134
Investment Return	252
Ending Value	\$7,087



Asset Mix

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

The cash position in the fund increased during the quarter due to large contributions at the close of the fiscal year. Cash reserves were also raised in anticipation of asset mix changes that will occur in fiscal year 1993.



Actual Asset Mix
6/30/92

	Actual Market Value (Millions)	Asset Mix 6/30/92
Common Stocks	\$610	8.6%
Bonds	5,708	80.5
Unallocated Cash	769	10.9
	\$7,087	100.0%

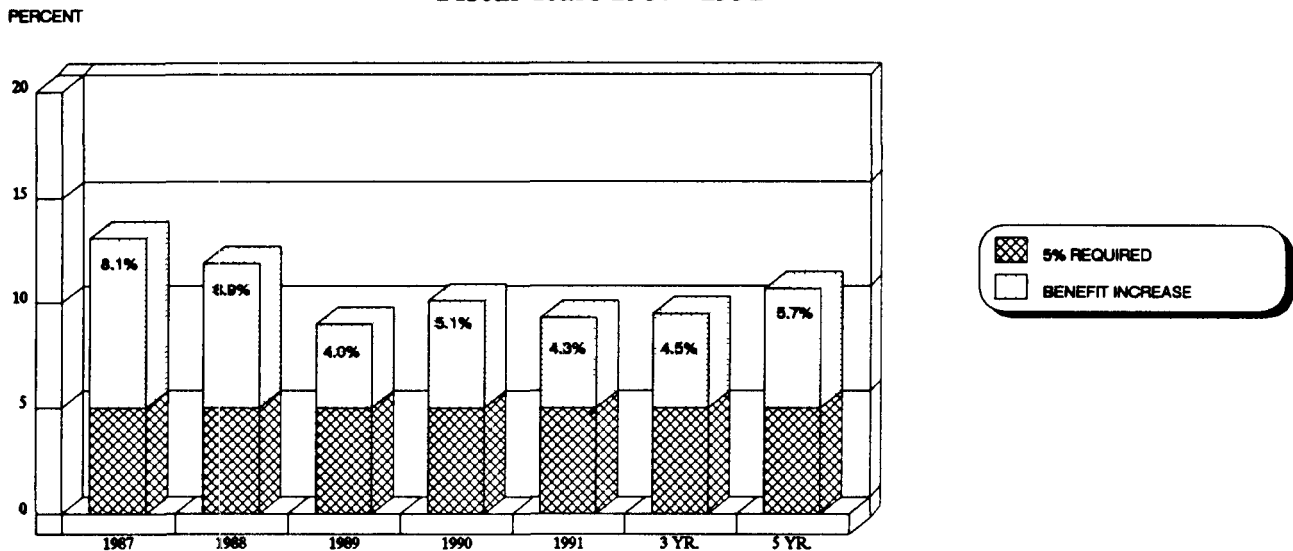
Post Fund (Con't.)

Total Fund Performance

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

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

**Realized Earnings
Fiscal Years 1987 - 1991**



	1987	1988	1989	1990	1991	(Annualized)	
						3 Yrs.	5 Yrs.
Realized Earnings*	13.1%	11.9%	9.0%	10.1%	9.3%	9.5%	10.7%
Benefit Increase**	8.1	6.9	4.0	5.1	4.3	4.5	5.7
Inflation	3.7	3.9	5.2	4.7	4.7	4.9	4.4

* Interest, dividends and net realized capital gains.

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

Stock Segment Performance

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

	Period Ending 6/30/92			
	(Annualized)			
	Qtr.	Yr.	3 Yr.	5 Yr.
Stock Segment	0.5%	19.8%	9.5%	9.0%
Post Fund Benchmark	2.0	17.2	9.9	8.7

Bond Segment Performance

At the close of the quarter, the dedicated bond portfolio had a current yield of 6.94% and average duration of 7.69 years. The market value of the dedicated bond portfolio was \$5.6 billion at the end of the quarter.

The dedicated bond portfolio is designed such that cash inflows from portfolio income and principal payments match required cash outflows to retirees. Thus, total return is not a relevant performance measure for the portfolio. Nevertheless, the bond segment provided a 4.4% return for the quarter and a 16.2% return for the year. This is consistent with the design of the dedicated bond portfolio.

Assigned Risk Plan

Investment Objective

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

Asset Mix

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

	6/30/92 Target	6/30/92 Actual
Stocks	15.0%	14.4%
Bonds	85.0	84.8
Unallocated Cash	0.0	0.8
Total	100.0%	100.0%

Investment Management

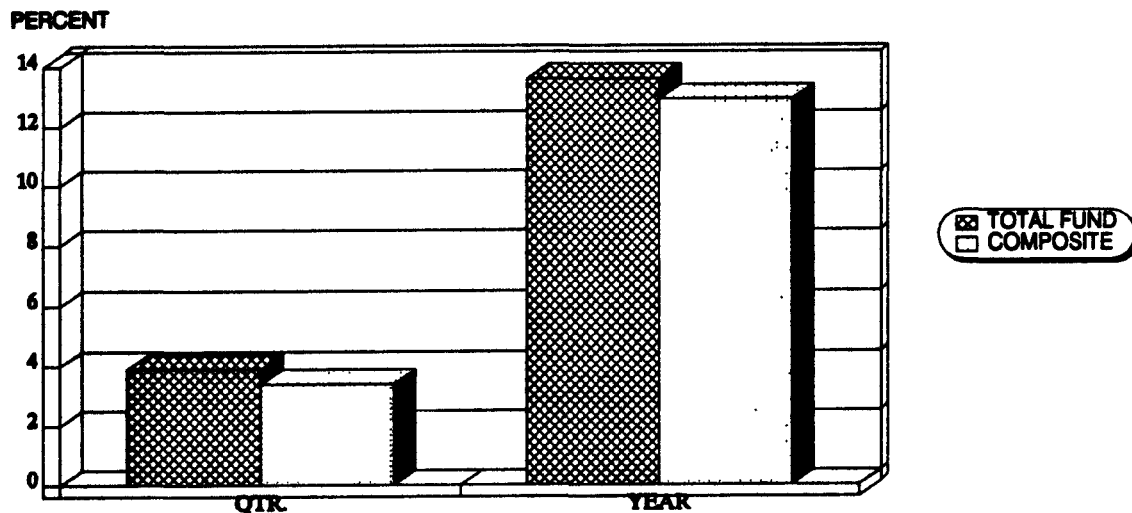
External management is utilized by the Assigned Risk Plan. The entire fund is managed by Voyager Asset Management. The portfolio was transferred from the Department of Commerce to the SBI on May 1, 1991.

Performance Benchmarks

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

Market Value

On June 30, 1992 the market value of the Assigned Risk Plan was \$348 million.

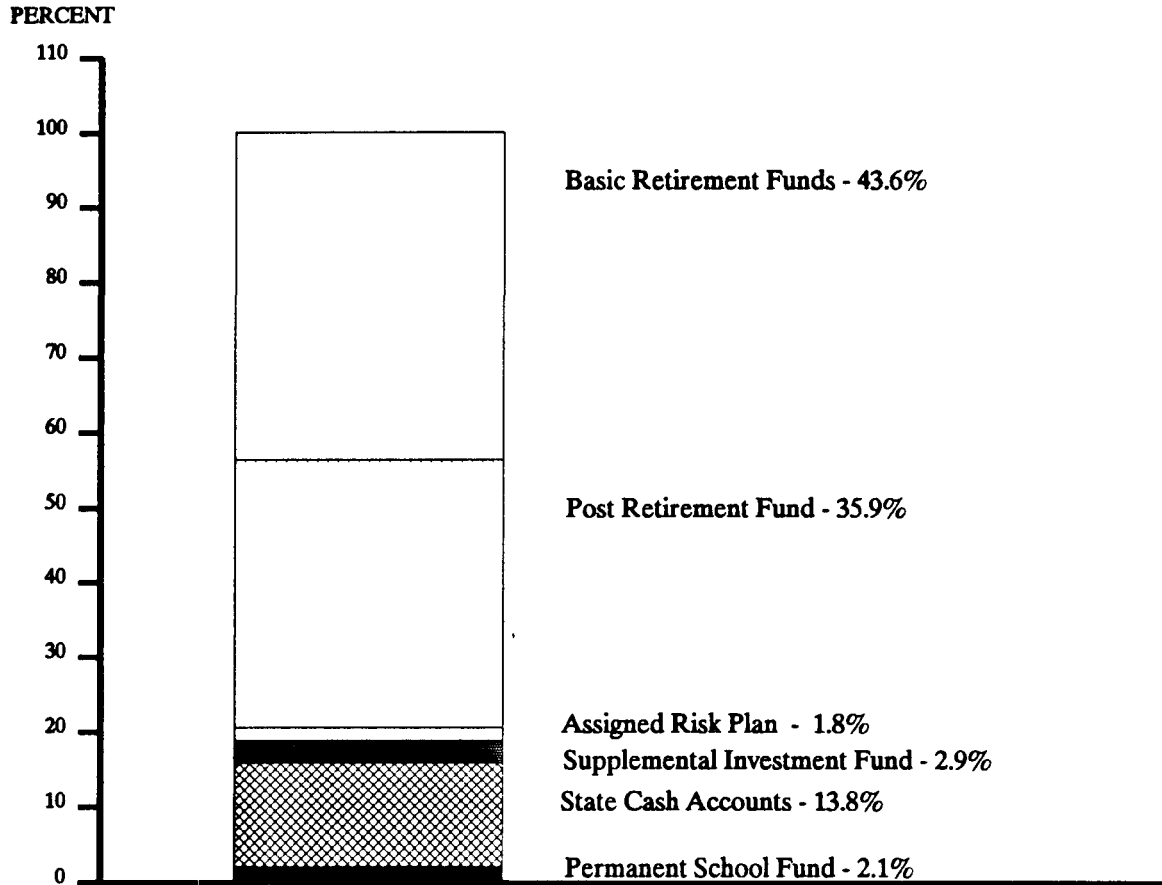


Period Ending 6/30/92

	Qtr.	Yr.
Total Fund	3.9%	13.6%
Composite Index	3.3	12.9
Equity Segment	0.8	11.9
Benchmark	0.1	10.9
Bond Segment	4.5	14.2
Benchmark	3.9	12.8

EXECUTIVE SUMMARY

Funds Under Management



	6/30/92 Market Value (Billions)
Basic Retirement Funds	\$8.6
Post Retirement Fund	7.1
Assigned Risk Plan	0.3
Supplemental Investment Fund	0.6
State Cash Accounts	2.7
Permanent School Fund	0.4
Total	\$19.7

MINNESOTA STATE BOARD OF INVESTMENT

QUARTERLY INVESTMENT REPORT

Second Quarter 1992

(April 1, 1992 — June 30, 1992)

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FINANCIAL MARKETS REVIEW

STOCK MARKET

During the quarter the stock market valuation did not change. During April and May the stock market advanced due to growing consumer confidence and higher than expected economic growth. However, in June the market gave up its previous gains because unemployment continued to increase. Unemployment was 7.8% in June which is its highest level since 1984.

The Wilshire 5000 provided a 0.0% return for the quarter. Performance among the different Wilshire Style Indexes for the quarter are shown below:

- Large Value 2.0%
- Small Value 4.9
- Large Growth -11.5
- Small Growth 4.6

The Wilshire 5000 increased 13.6% during the latest year.

BOND MARKET

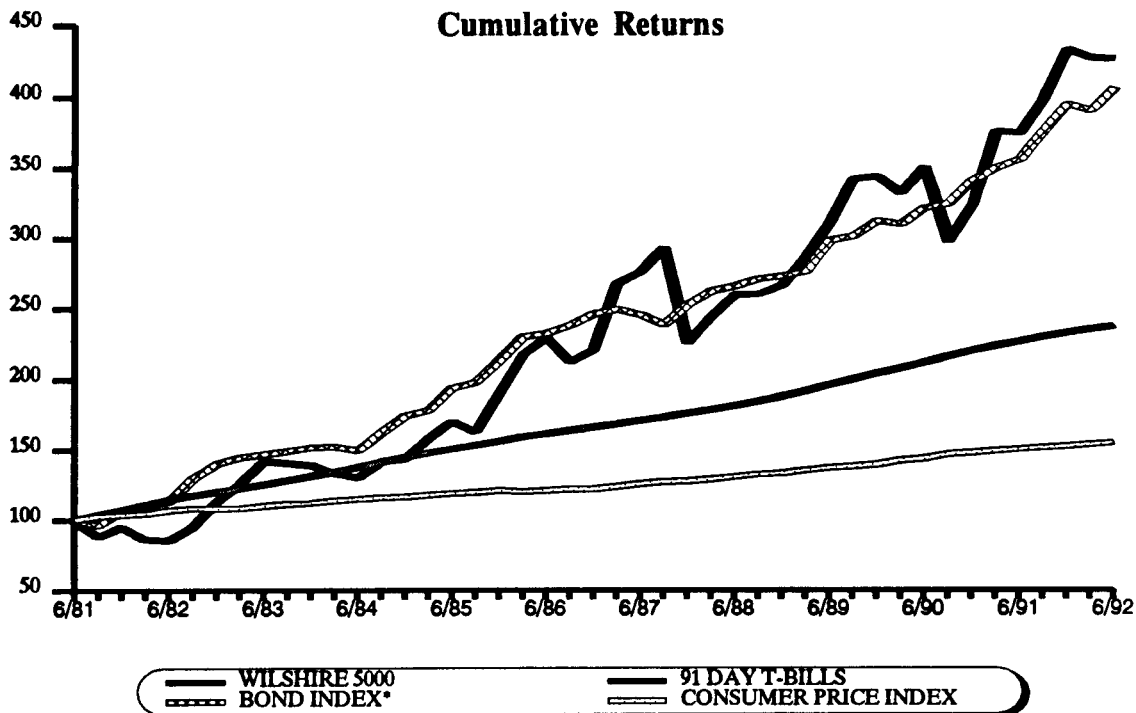
Long-term interest rates fluctuated during the quarter in response to uncertainty over the strength of the economic recovery and an increase in bond issuance. Interest rates first rose as the Treasury issued new bonds but then declined as economic reports reflected a weak recovery and subdued inflation. The Federal Reserve Bank lowered the Fed funds rate by 0.25% in April causing interest rates to decline. This rate decline caused bond prices to rise during the quarter.

Overall, the Salomon Brothers Broad Investment Grade (BIG) Index increased 4.1% for the quarter. The Salomon BIG sector returns for the quarter were:

- Treasury/Agency 4.0%
- Corporates 4.4
- Mortgages 4.0

The Salomon BIG increased 14.2% for the latest year.

PERFORMANCE OF CAPITAL MARKETS



* Salomon Broad Investment Grade Bond (BIG) Index

FINANCIAL MARKETS REVIEW**REAL ESTATE**

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

VENTURE CAPITAL

Calendar year 1991 was a stellar year for initial public offerings of venture-backed companies. Over one hundred venture-backed companies tapped the new issues market and raised a total of almost \$3.8 billion. The previous record for venture-backed initial public offerings was 1983, when a similar number of venture-backed companies raised approximately \$3.0 billion in the public equity markets.

RESOURCE FUNDS

Over the past year and a half spot prices of West Texas Intermediate oil jumped to as high as \$41.15 per barrel in October 1990 compared to a low of \$15.06 in June 1990. Currently, spot prices of oil are at \$21.47 per barrel.

Spot prices of natural gas reached a high of approximately \$2.00 per MCF (thousand cubic feet) in October 1990 compared to a recent price of approximately \$1.745 per MCF.

BASIC RETIREMENT FUNDS

Investment Objectives

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

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

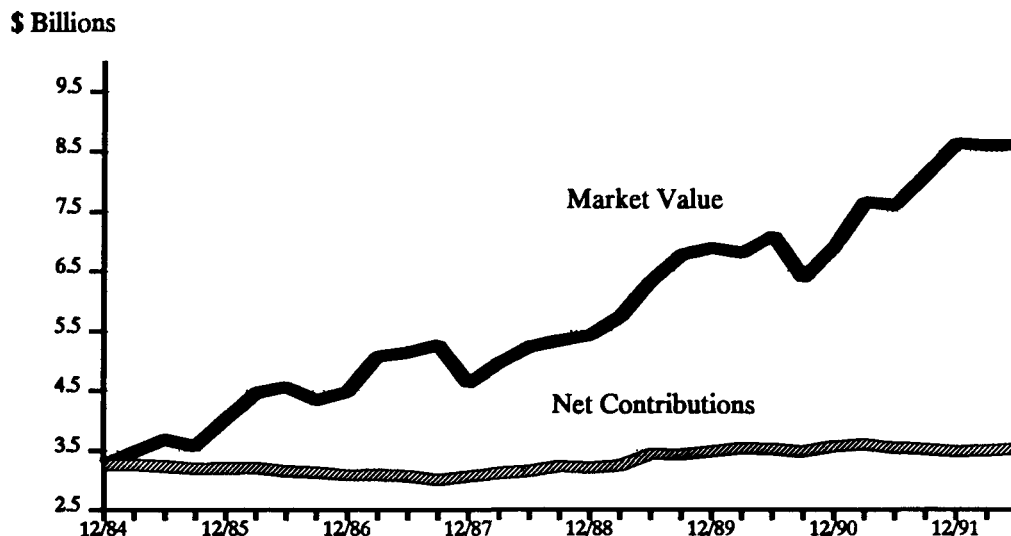
The Board has established three return objectives for the Basic Funds:

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

Asset Growth

The market value of the Basic Retirement Funds' assets essentially remained the same during the second quarter

of 1992. There were no material increases or decreases in either net contributions or investment returns.



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

BASIC RETIREMENT FUNDS

Asset Mix

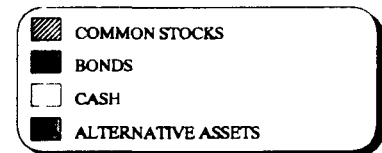
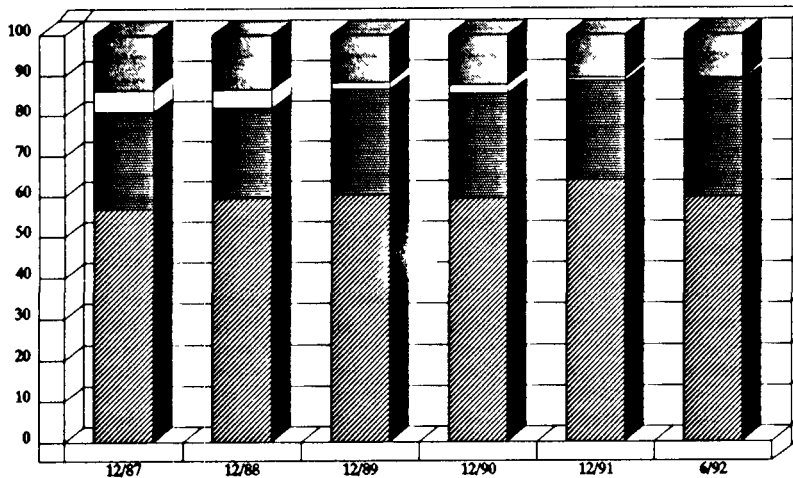
Based on the Basic Funds' investment objectives and the expected long run performance of the capital markets, the Board has adopted the following long-term policy asset allocation for the Basic Funds:

There were few changes to the actual asset mix during the quarter. The bond segment increased slightly due to falling interest rates which caused bond prices to rise.

Common Stocks	60.0%
Bonds	24.0
Alternative Assets*	15.0
Unallocated Cash	1.0

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

PERCENT



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

BASIC RETIREMENT FUNDS

Total Fund Performance vs. Standards

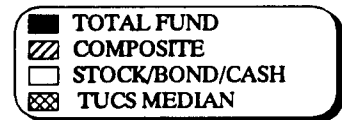
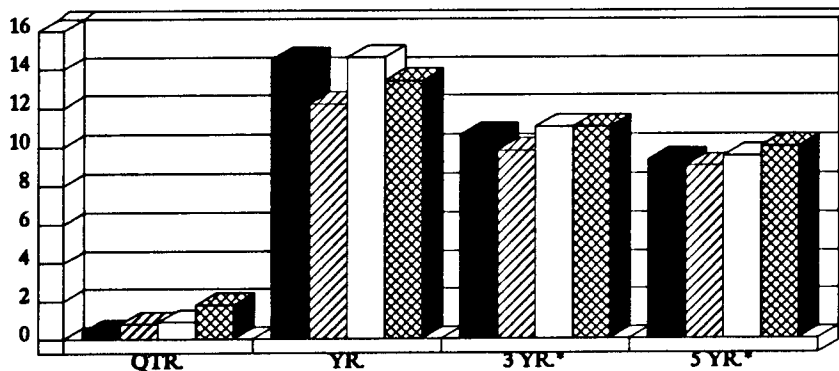
The Basic Funds' long-term rate of return performance is evaluated relative to two specific benchmarks:

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

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

The Basic Funds total portfolio trailed its composite index for the latest quarter but exceeded it for the year. Excluding alternative assets, the Basic Funds ranked in the bottom third (70th percentile) of the TUCS universe for the quarter. In addition, it ranked in the top third (33rd percentile) for the latest year and the middle third (66th percentile) for the last five years.

PERCENT



	Period Ending 6/30/92			
	Qtr.	Yr.	3 Yr.	5 Yr.
Total Fund	0.4%	14.5%	10.6%	9.3%
Composite Index**	0.8	12.2	9.8	9.0
Stocks, Bonds and Cash Only	0.9	14.6	11.0	9.5
TUCS Median Balanced Fund	1.8	13.4	11.0	10.0

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

BASIC RETIREMENT FUNDS

Segment Performance vs. Standards

Stock Segment

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

	Qtr.	Yr.	Annualized	
			3 Yrs.	5 Yrs.
Stock Segment	-0.6%	14.3%	10.6%	8.6
Wilshire 5000*	0.0	13.6	10.7	8.6

* Adjusted for liquor and tobacco restrictions.

Bond Segment

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

	Qtr.	Yr.	Annualized	
			3 Yrs.	5 Yrs.
Bond Segment	3.9%	14.7%	11.0%	10.6%
Salomon Bond Index	4.1	14.2	10.9	10.6

Real Estate Segment

The real estate segment of the Basic Funds trailed its target for the latest year.

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

	Qtr.	Yr.	Annualized	
			3 Yrs.	5 Yrs.
Real Estate Segment	-0.3%	-10.1%	-3.1%	1.1%
Real Estate Index	-0.3	-8.5	-3.8	0.7
Inflation	0.7	3.1	4.2	4.3

Venture Capital and Resource Funds

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

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

	Qtr.	Yr.	Annualized	
			3 Yrs.	5 Yrs.
Venture Capital Segment	-4.7%	51.9%	22.8%	20.3%
Resource Fund Segment	-3.3	5.7	6.0	7.4

POST RETIREMENT FUND

Investment Objectives

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

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

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

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

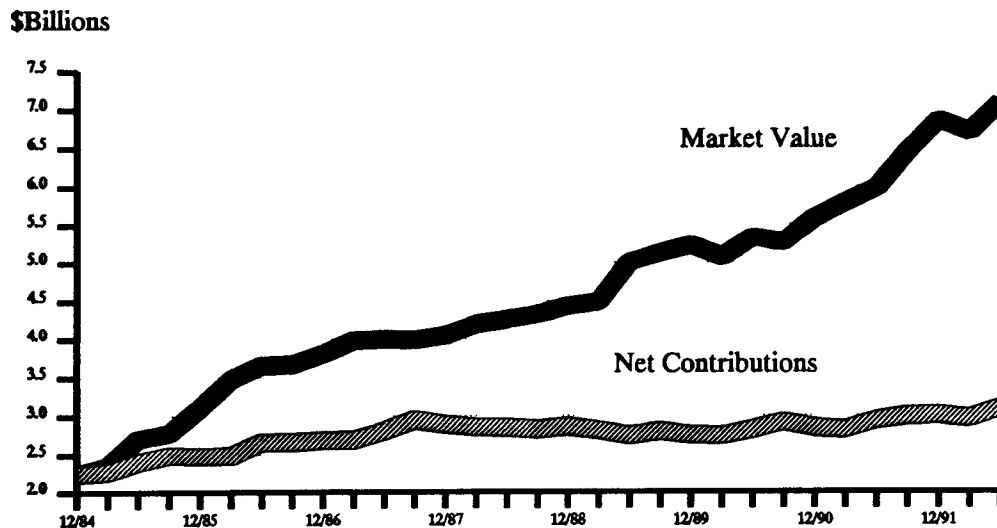
- generate 5% realized earnings to maintain current benefits.
- generate at least 3% additional realized earnings to provide benefit increases.

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

Asset Growth

The market value of the Post Retirement Fund increased by 5.8% during the second quarter of 1992. Assets

increased due to positive net contributions and positive bond performance.



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

POST RETIREMENT FUND

Asset Mix

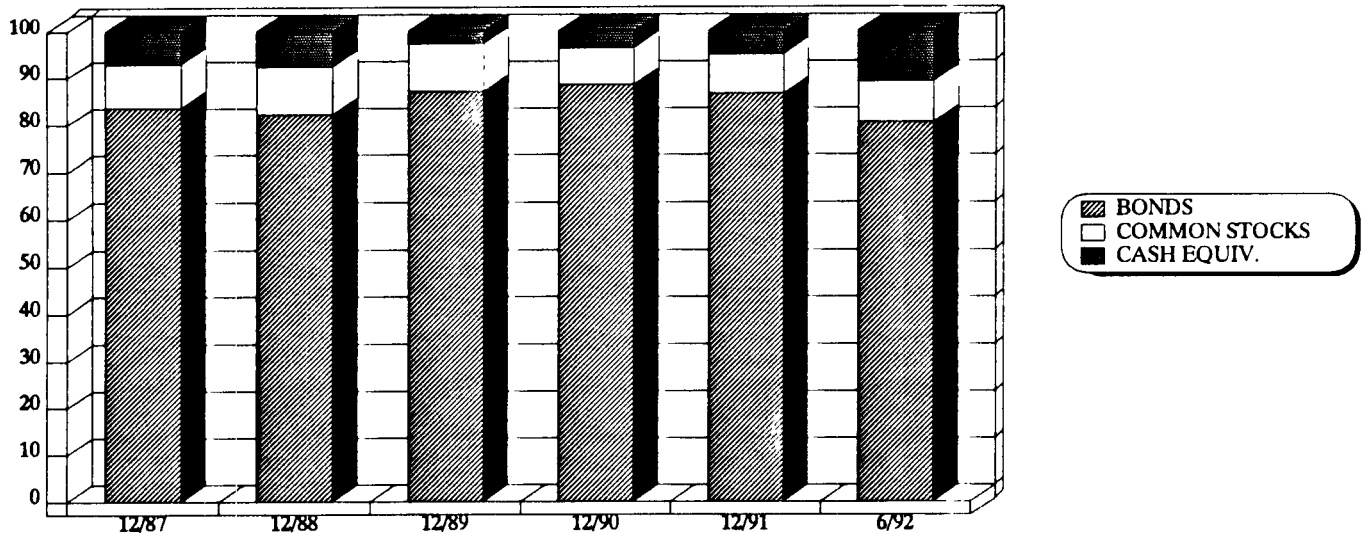
The Board has designed the asset mix of the Post Fund to generate the sizable stable earnings stream necessary to finance monthly payments to retirees.

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

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

The cash position in the fund increased during the quarter due to large contributions at the close of the fiscal year. Cash reserves were also raised in anticipation of asset mix changes that will occur in fiscal year 1993.

PERCENT



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

POST RETIREMENT FUND

Total Fund Performance

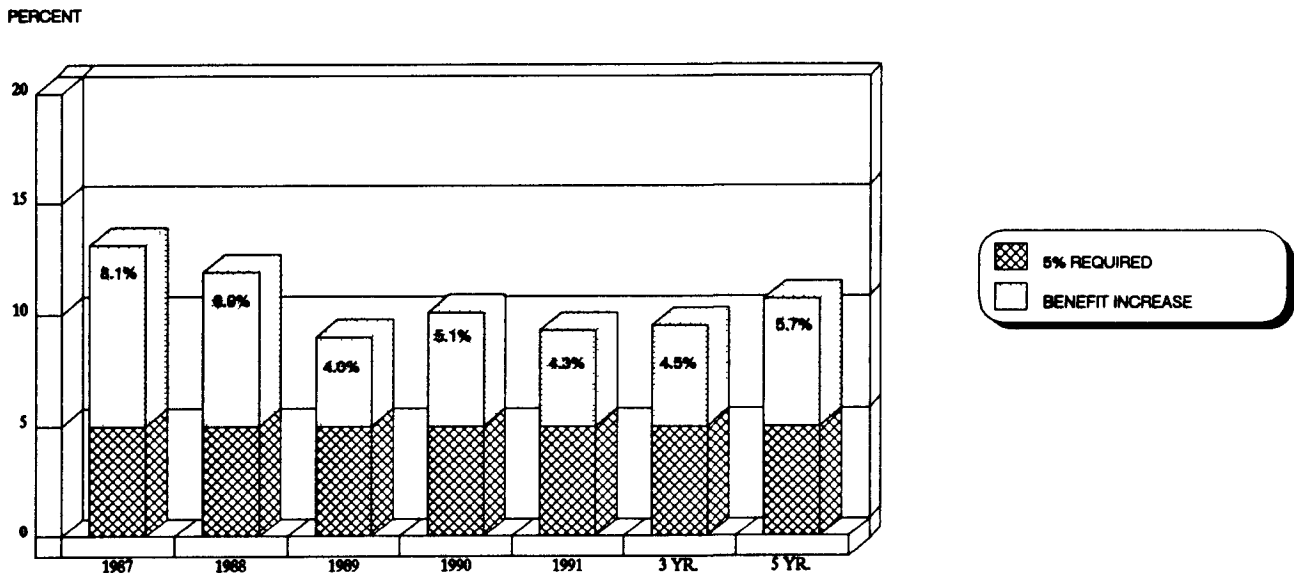
The ability of the Post Fund to maintain current benefit levels and provide future benefit increases depends upon its earnings. State statutes define earnings for the Post Fund as interest and dividend income as well as realized equity and fixed income capital gains (or losses). Unrealized capital gains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

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

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

Realized Earnings

Fiscal Years 1987 - 1991



	1987	1988	1989	1990	1991	(Annualized)	
						3 Yrs.	5 Yrs.
Realized Earnings*	13.1%	11.9%	9.0%	10.1%	9.3%	9.5%	10.7%
Benefit Increase**	8.1	6.9	4.0	5.1	4.3	4.5	5.7
Inflation	3.7	3.9	5.2	4.7	4.7	4.9	4.4

* Interest, dividends and net realized capital gains.

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

POST RETIREMENT FUND

Segment Performance

Stock Segment Performance

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

	Period Ending 6/30/92			
	Qtr.	Yr.	(Annualized)	
			3 Yrs.	5 Yrs.
Stock Segment	0.5%	19.8%	9.5%	9.0%
Post Fund Benchmark	2.0	17.2	9.9	8.7

Bond Segment Performance

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

The Post Fund's bond portfolio provided a 4.4% total rate of return for the quarter and a 16.2% return for the year. This performance is consistent with the bond portfolio's design. The Post Fund's dedicated bond portfolio is structured so that portfolio income and maturities match the Fund's liability stream. As a result, the duration of the dedicated bond portfolio exceeds that of the bond market. Consequently, on a total return basis, the portfolio can be expected to underperform the bond market in down periods and outperform the market in up periods.

**Dedicated Bond Portfolio Statistics
6/30/92**

Value at Market	\$ 5,611,436,280
Value at Cost	5,056,163,354
Average Coupon	8.28%
Current Yield	6.94
Yield to Maturity	7.46
Current Yield at Cost	8.10
Time to Maturity	15.83 Years
Average Duration	7.69 Years
Average Quality Rating	AAA
Number of Issues	433

ASSIGNED RISK PLAN

Investment Objective

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

Investment Management

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

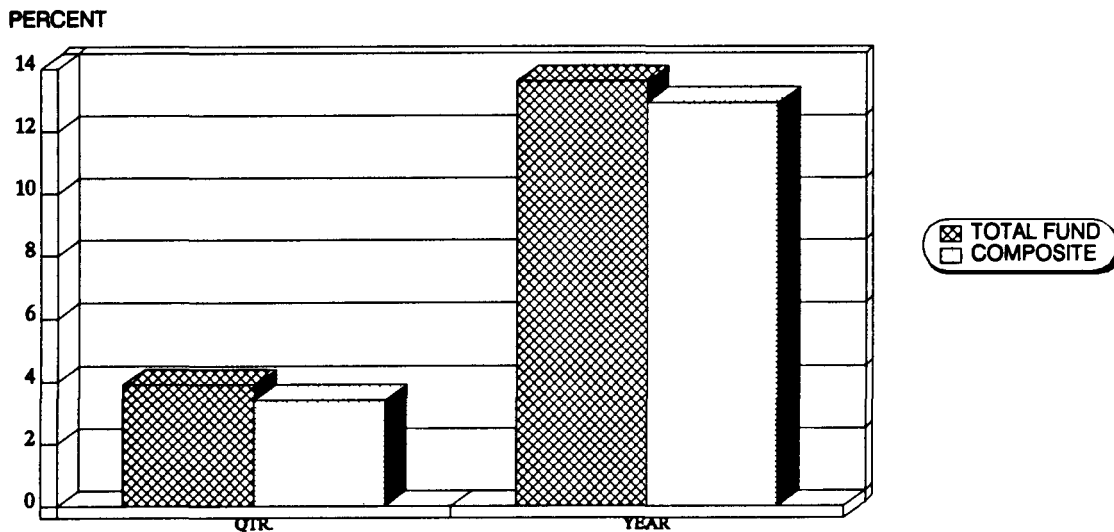
Asset Mix

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

Market Value

On June 30, 1992 the market value of the Assigned Risk Plan was \$348 million.

	6/30/92 Target	6/30/92 Actual
Stocks	15.0%	14.4%
Bonds	85.0	84.8
Unallocated Cash	0.0	0.8
Total	100.0%	100.0%



Period Ending 6/30/92

	Qtr.	Yr.
Total Account	3.9%	13.6%
Composite	3.3	12.9
Equity Segment	0.8	11.9
Wilshire 5000	0.1	10.9
Bond Segment	4.5	14.2
Benchmark	3.9	12.8

SUPPLEMENTAL INVESTMENT FUND

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

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

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

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

On June 30, 1992 the market value of the entire fund was \$569 million.

Investment Options

Income Share Account - a balanced portfolio utilizing both common stocks and bonds.

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

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

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

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

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

SUPPLEMENTAL INVESTMENT FUND

Income Share Account

Investment Objective

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

Asset Mix

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

Investment Management

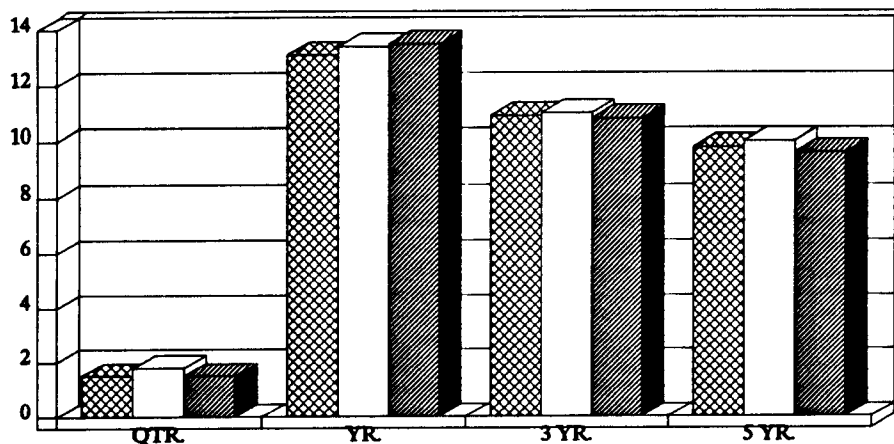
The Account combines internal and external management. Internal investment staff manage the entire fixed income segment. Currently, the entire stock segment is managed by Wilshire Associates as part of a passively managed index fund designed to track the Wilshire 5000. Prior to April 1988, a significant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

Market Value

On June 30, 1992 the market value of the Income Share Account was \$304 million.

	Target	Actual
Stocks	60.0%	62.0%
Bonds	35.0	30.7
Unallocated Cash	5.0	7.3
	<u>100.0%</u>	<u>100.0%</u>

PERCENT



Period Ending 6/30/92

	Qtr.	Yr.	Annualized	
			3 Yr.	5 Yr.
Total Account	1.5%	13.1%	10.9%	9.8%
Median Fund*	1.8	13.4	11.0	10.0
Composite**	1.5	13.5	10.8	9.6
Equity Segment	0.3	13.9	10.9	9.0
Wilshire 5000**	0.0	13.6	10.7	8.6
Bond Segment	4.2	13.9	10.8	10.7
Salomon Bond Index	4.1	14.2	10.9	10.6

* TUCS Median Balanced Portfolio

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

SUPPLEMENTAL INVESTMENT FUND

Growth Share Account

Investment Objective

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

Asset Mix

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

Investment Management

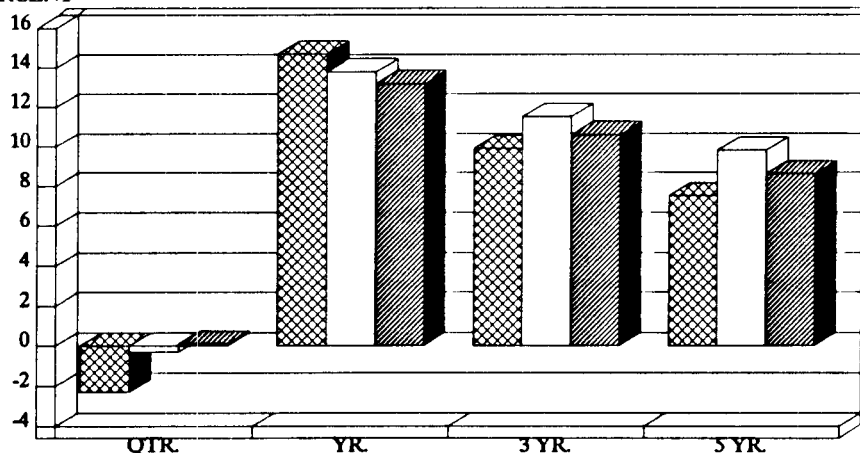
Currently, the entire Account is managed by the same group of active external stock managers utilized by the Basic Retirement Funds. Prior to April 1988, other active managers controlled a substantial portion of the account.

Market Value

On June 30, 1992 the market value of the Growth Share Account was \$82 million.

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

PERCENT



TOTAL ACCT.
 MEDIAN FUND
 COMPOSITE

Period Ending 6/30/92

	Annualized			
	Qtr.	Yr.	3 Yr.	5 Yr.
Total Account	-2.3%	14.7%	9.9%	7.5%
Median Fund*	-0.3	13.8	11.5	9.8
Composite**	0.1	13.2	10.6	8.6
Equity Segment	-2.6	14.9	10.2	7.7
Wilshire 5000**	0.0	13.6	10.7	8.6

* TUCS Median Managed Equity Portfolio

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

SUPPLEMENTAL INVESTMENT FUND

Common Stock Index Account

Investment Objective and Asset Mix

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

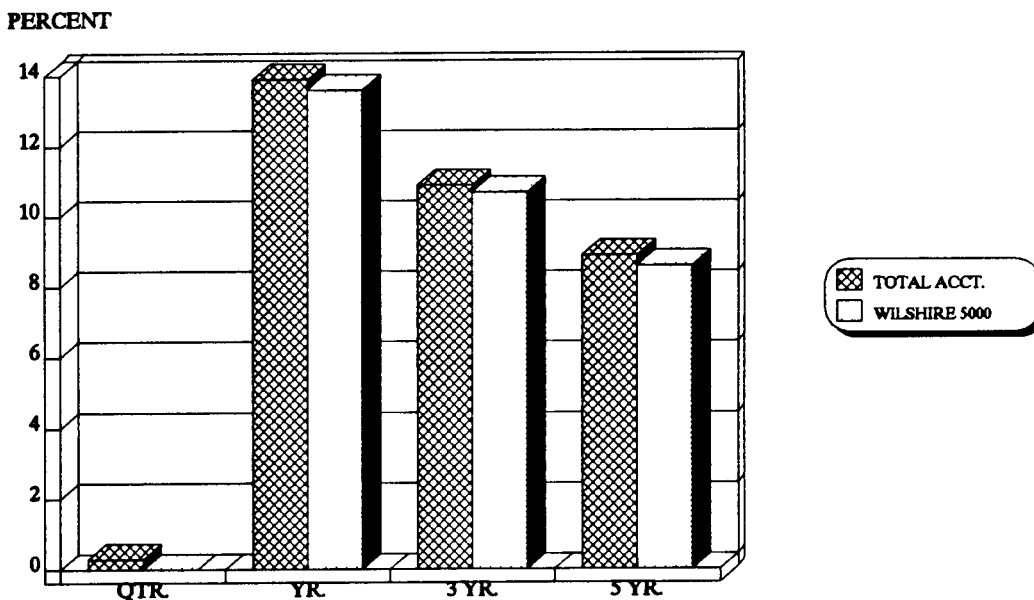
The Account is invested 100% in common stocks.

Investment Management

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

Market Value

On June 30, 1992 the market value of the Common Stock Index Account was \$24 million.



	Period Ending 6/30/92			
	Qtr.	Yr.	3 Yr.	5 Yr.
Total Account	0.3%	13.8%	10.9%	8.9%
Wilshire 5000*	0.0	13.6	10.7	8.6

* Adjusted for liquor and tobacco restrictions.

SUPPLEMENTAL INVESTMENT FUND

Bond Market Account

Investment Objective

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

Investment Management

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

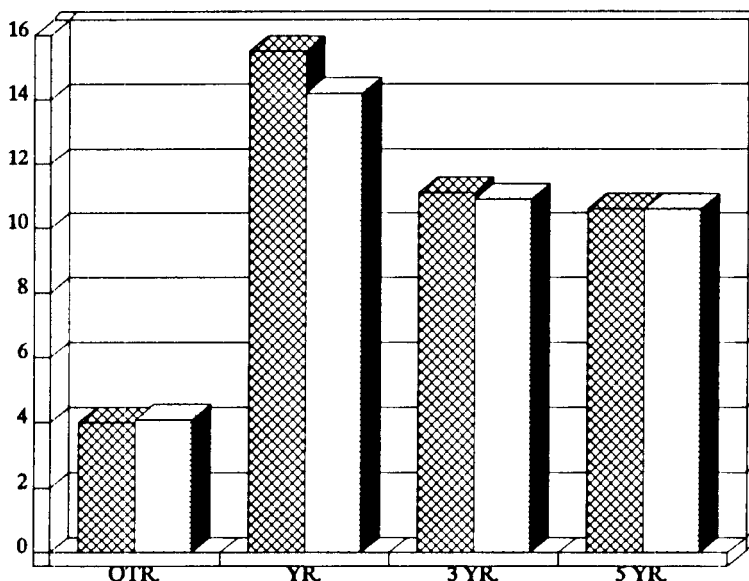
Asset Mix

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, 1992 the market value of the Bond Market Account was \$12 million.

PERCENT



TOTAL ACCOUNT
 SALOMON BROAD

Period Ending 6/30/92

	Qtr.	Yr.	Annualized	
			3 Yr.	5 Yr.
Total Account	4.0%	15.5%	11.1%	10.6%
Salomon Broad	4.1	14.2	10.9	10.6

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.

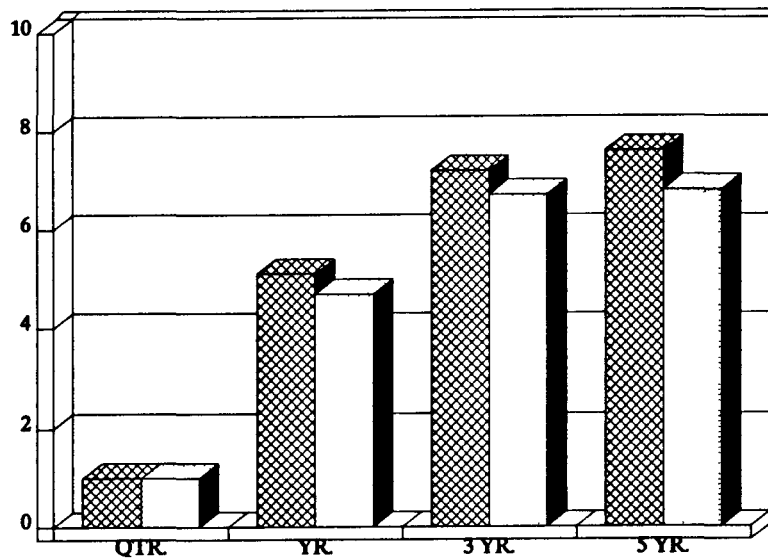
Investment Management

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, 1992 the market value of the Money Market Account was \$78 million.

PERCENT



Period Ending 6/30/92

	Qtr.	Yr.	Annualized 3 Yr.	Annualized 5 Yr.
Total Account	1.0%	5.1%	7.2%	7.6%
91 Day T-Bills	1.0	4.6	6.7	6.8

SUPPLEMENTAL INVESTMENT FUND

Fixed Interest Account

Investment Objectives

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

Asset Mix

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

Investment Management

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

Market Value

On June 30, 1992 the market value of the Fixed Interest Account was \$69 million.

Contract Period	Annual Effective Interest Rate	Manager
Nov. 1, 1989 - Oct. 31, 1992	8.400%	John Hancock
Nov. 1, 1990 - Oct. 31, 1993	8.765%	Mutual of America/ Provident National (blended rate)
Nov. 1, 1991 - Oct. 31, 1994	6.634%	Continental Assurance/ Provident National (blended rate)

PERMANENT SCHOOL FUND

Investment Objectives

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

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

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

Asset Mix

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

	Target	Actual
Bonds	95.0%	96.0%
Unallocated Cash	5.0	4.0
Total	100.0%	100.0%

Investment Management

The entire fund is managed by the SBI investment staff.

Asset Growth

The market value of the Permanent School Fund's assets increased 4.6% during the second quarter. Both contributions and positive bond performance contributed to the increase.

Asset Growth During Second Quarter 1992 (Millions)	
Beginning Value	\$400.4
Net Contributions	2.6
Investment Return	15.9
Ending Value	\$418.9

Bond Segment Performance

The composition of the Permanent School Fund's bond portfolio was essentially unchanged during the quarter. The bond portfolio is structured with a laddered distribution of maturities to minimize the Fund's exposure to re-investment rate risk. At the quarter's-end, the portfolio had a current yield of 8.24%, an average life of 6.63 years, and a AAA quality rating. The portfolio remains concentrated in Treasury and Agency issues with the remainder primarily distributed among mortgages, industrials and utilities.

**Bond Portfolio Statistics
6/30/92**

Value at Market	\$395,205,229
Value at Cost	362,373,904
Average Coupon	9.12%
Current Yield	8.24
Yield to Maturity	7.68
Current Yield at Cost	9.06
Time to Maturity	14.83 Years
Average Duration	6.63 Years
Average Quality Rating	AAA
Number of Issues	128

STATE CASH ACCOUNTS

Description

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

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

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

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

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

Investment Objectives

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

Asset Mix

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

Investment Management

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

Performance

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

Period Ending 6/30/92

	Market Value (Millions)	Qtr.	Yr.	3 Yrs. Annualized
Treasurer's Cash Pool	\$2,328	1.4%	6.7%	8.1%
Trust Fund Cash Pool	105	1.1	5.4	7.4
91-Day T-Bills		1.0	4.6	6.7

Tab B

PORTFOLIO STATISTICS

	PAGE
I. Composition of State investment portfolios 6/30/92	1
II. Cash Flow Available for Investment 4/1/92 - 6/30/92	3
III. Monthly Transactions and Asset Summary - Retirement Funds	4

STATE OF MINNESOTA
STATE BOARD OF INVESTMENT
Composition of State Investment Portfolios By Type of Investment
Market Value June 30, 1992
(in Millions)

	Cash And		Bonds		Stocks		Alternative Assets	Total
	Short Term Securities		Internal	External	Internal	External		
BASIC RETIREMENT FUNDS:								
Teachers Retirement Fund	\$2,194 0.06%	\$0	\$1,128,408 29.11%	\$0	\$0	\$2,326,658 60.00%	\$419,821 10.83%	\$3,877,081 100%
Public Employees Retirement Fund	\$12,988 0.67%	\$0	\$558,784 28.80%	\$0	\$0	\$1,160,903 59.82%	\$207,894 10.71%	\$1,940,569 100%
State Employees Retirement Fund	\$20,828 1.23%	\$0	\$487,503 28.73%	\$0	\$0	\$1,007,240 59.35%	\$181,374 10.69%	\$1,696,945 100%
Public Employees Police & Fire Fund	\$9,798 1.26%	\$0	\$223,605 28.72%	\$0	\$0	\$461,995 59.34%	\$83,191 10.68%	\$778,589 100%
Highway Patrol Retirement Fund	\$1,823 1.46%	\$0	\$35,882 28.66%	\$0	\$0	\$74,136 59.22%	\$13,350 10.66%	\$125,191 100%
Judges Retirement Fund	\$345 5.45%	\$0	\$1,740 27.49%	\$0	\$0	\$3,596 56.82%	\$648 10.24%	\$6,329 100%
Public Employees P.F. Consolidated	\$475 0.50%	\$0	\$27,949 29.39%	\$0	\$0	\$56,271 59.17%	\$10,398 10.94%	\$95,093 100%
Correctional Employees Retirement	\$756 0.86%	\$0	\$25,312 28.83%	\$0	\$0	\$52,298 59.58%	\$9,417 10.73%	\$87,783 100%
POST RETIREMENT FUND	\$769,334 10.86%	\$5,707,666 80.53%	\$0	\$0	\$610,322 8.61%	\$0	\$0	\$7,087,322 100%

	Cash And Short Term Securities		Bonds		Stocks		Alternative Assets	Total
	Internal	External	Internal	External	Internal	External		
MINNESOTA SUPPLEMENTAL FUNDS:								
Income Share Account	\$22,220 7.30%	\$0	\$93,457 30.71%	\$0	\$0	\$188,605 61.99%	\$0	\$304,282 100%
Growth Share Account	\$5,055 6.20%	\$0	\$0	\$0	\$0	\$76,504 93.80%	\$0	\$81,559 100%
Money Market Account	\$78,314 100%	\$0	\$0	\$0	\$0	\$0	\$0	\$78,314 100%
Common Stock Index Account	\$0	\$0	\$0	\$0	\$0	\$24,347 100%	\$0	\$24,347 100%
Bond Market Account	\$0	\$12,340 100%	\$0	\$0	\$0	\$0	\$0	\$12,340 100%
Fixed Interest Account	\$0	\$68,517 100%	\$0	\$0	\$0	\$0	\$0	\$68,517 100%
TOTAL RETIREMENT FUNDS	\$924,130 5.68%	\$2,570,040 15.80%	\$5,801,123 35.67%	\$2,570,040 15.80%	\$610,322 3.75%	\$5,432,553 33.40%	\$926,093 5.70%	\$16,264,261 100%
ASSIGNED RISK PLAN	\$2,866 0.82%	\$0	\$295,294 84.77%	\$0	\$50,176 14.41%	\$0	\$0	\$348,336 100%
PERMANENT SCHOOL FUND	\$16,584 3.96%	\$0	\$402,286 96.04%	\$0	\$0	\$0	\$0	\$418,870 100%
TREASURERS CASH	\$2,328,813 100%	\$0	\$0	\$0	\$0	\$0	\$0	\$2,328,813 100%
HOUSING FINANCE AGENCY	\$190,645 100%	\$0	\$0	\$0	\$0	\$0	\$0	\$190,645 100%
MINNESOTA DEBT SERVICE FUND	\$26,562 100%	\$0	\$0	\$0	\$0	\$0	\$0	\$26,562 100%
MISCELLANEOUS ACCOUNTS	\$173,649 100%	\$0	\$0	\$0	\$0	\$0	\$0	\$173,649 100%
GRAND TOTAL	\$3,663,249 18.55%	\$6,498,703 32.90%	\$2,570,040 13.01%	\$2,570,040 13.01%	\$660,498 3.34%	\$5,432,553 27.51%	\$926,093 4.69%	\$19,751,136 100%

**STATE OF MINNESOTA
STATE BOARD OF INVESTMENT**

**Net Cash Flow Available For Investment
April 1, 1992 - June 30, 1992**

Teachers Retirement Fund	(\$42,000,000.00)
Public Employees Retirement Fund	0.00
State Employees Retirement Fund	6,719,000.00
Public Employees Police & Fire	6,000,000.00
Highway Patrol Retirement Fund	726,000.00
Judges Retirement Fund	284,000.00
Public Employees P&F Consolidated	(8,100,000.00)
Correctional Employees Retirement Fund	608,000.00
Post Retirement Fund	133,657,845.32
Supplemental Retirement Fund - Income	978,478.04
Supplemental Retirement Fund - Growth	(65,337.53)
Supplemental Retirement Fund - Money Market	(956,343.10)
Supplemental Retirement Fund - Index	1,501,292.29
Supplemental Retirement Fund - Bond Market	(138,385.60)
Supplemental Retirement Fund - Fixed Interest	(319,823.10)
Total Retirement Funds Net Cash Flow	\$98,894,726.32
Assigned Risk Plan	\$6,511,732.50
Permanent School Fund	\$2,594,124.01
Total Net Cash Flow	\$108,000,582.83

**STATE OF MINNESOTA
STATE BOARD OF INVESTMENT**

**Transaction and Asset Summary
Retirement Funds**

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

Tab C

EXECUTIVE DIRECTOR'S ADMINISTRATIVE REPORT

DATE: September 1, 1992

TO: Members, State Board of Investment

FROM: Howard J. Bicker

1) Budget Reports

A final budget report for the SBI's FY92 administrative budget is **Attachment A**. A report for the period ending July 31, 1992 is **Attachment B**.

2) Travel Report

A travel report for the period from May 16, 1992 - August 15, 1992 is included as **Attachment C**.

ATTACHMENT A

**STATE BOARD OF INVESTMENT
FISCAL YEAR 1992 ADMINISTRATIVE BUDGET REPORT
GENERAL FUND APPROPRIATION
FISCAL YEAR ENDED JUNE 30,1992**

ITEM	FISCAL YEAR 1992 BUDGET	FISCAL YEAR 1992 EXPENDITURES
PERSONAL SERVICES		
CLASSIFIED EMPLOYEES	\$ 260,000	\$ 260,837
UNCLASSIFIED EMPLOYEES	1,224,000	1,144,717
SEVERENCE PAYOFF	0	26,422
WORKERS COMPENSATION INSURANCE	0	3,834
MISCELLANEOUS PAYROLL	0	-20
SUBTOTAL	\$ 1,484,000	\$ 1,435,790
EXPENSES & CONTRACTUAL SERVICES		
RENTS & LEASES	92,000	89,687
REPAIRS/ALTERATIONS/MAINTENANCE	9,000	6,872
PRINTING & BINDING	18,000	14,802
PROFESSIONAL/TECHNICAL SERVICES	5,000	14,399
DATA PROCESSING & SYSTEM SERVICES	162,000	162,000
PURCHASED SERVICES	20,000	31,188
SUBTOTAL	\$ 306,000	\$ 318,948
MISCELLANEOUS OPERATING EXPENSES		
COMMUNICATIONS	20,000	20,835
TRAVEL, IN-STATE	3,000	650
TRAVEL, OUT-STATE	40,000	38,678
FEES & OTHER FIXED CHARGES	7,000	7,135
SUBTOTAL	\$ 70,000	\$ 67,298
SUPPLIES/MATERIALS/PARTS	15,000	46,211
CAPITAL EQUIPMENT	19,000	17,078
TOTAL GENERAL FUND	\$ 1,894,000	\$ 1,885,325

ATTACHMENT B

**STATE BOARD OF INVESTMENT
FISCAL YEAR 1993 ADMINISTRATIVE BUDGET REPORT
GENERAL FUND APPROPRIATION
FISCAL YEAR TO DATE THROUGH JULY 31, 1992**

ITEM	FISCAL YEAR 1993 BUDGET	FISCAL YEAR 1993 EXPENDITURES
PERSONAL SERVICES		
CLASSIFIED EMPLOYEES	\$ 286,000	\$ 8,960
UNCLASSIFIED EMPLOYEES	1,206,000	47,851
SEVERENCE PAYOFF	3,000	300
WORKERS COMPENSATION INSURANCE	0	0
MISCELLANEOUS PAYROLL	0	0
SUBTOTAL	\$ 1,495,000	\$ 57,111
EXPENSES & CONTRACTUAL SERVICES		
RENTS & LEASES	96,000	6,554
REPAIRS/ALTERATIONS/MAINTENANCE	9,000	478
PRINTING & BINDING	20,000	62
PROFESSIONAL/TECHNICAL SERVICES	15,000	1,000
DATA PROCESSING & SYSTEM SERVICES	162,000	13,500
PURCHASED SERVICES	30,000	5,334
SUBTOTAL	\$ 332,000	\$ 26,928
MISCELLANEOUS OPERATING EXPENSES		
COMMUNICATIONS	25,000	3,603
TRAVEL, IN-STATE	3,000	175
TRAVEL, OUT-STATE	40,000	2,572
FEES & OTHER FIXED CHARGES	9,000	1,665
SUBTOTAL	\$ 77,000	\$ 8,015
SUPPLIES/MATERIALS/PARTS	29,700	4,843
CAPITAL EQUIPMENT	34,300	1,613
TOTAL GENERAL FUND	\$ 1,968,000	\$ 98,510

ATTACHMENT C

STATE BOARD OF INVESTMENT

**Travel Summary by Date
May 16, 1992 - August 15, 1992**

<u>Purpose</u>	<u>Name(s)</u>	<u>Destination and Date</u>	<u>Total Cost</u>
Manager Monitoring Venture Capital KKR Annual Investor Meeting	J. Griebenow	San Francisco 5/19-21	\$1,001.36
Board Member Travel "Public Funds Symposium" sponsored by J.P. Morgan	J. Growe	New York 6/10-12	\$645.60
Staff Conference "3rd Annual Pension Investment Conference" sponsored by P&I	H. Bicker	Washington DC 6/15-16	\$750.75
Board Member Travel Nat'l Assoc. of Public Pension Attorneys	C. Eller	Baltimore 6/24-26	\$1,855.20
Staff Conference "Raiding America's Nest Eggs" sponsored by Montana Board of Investments	H. Bicker	Big Sky MT 7/5-8	\$394.26
Board Member Travel "Investment Management Workshop" sponsored by Assoc. for Investment Mgmt. and Research (AIMR)	L. Rotenberg	Princeton NJ 7/19-24	\$2,403.00*

* Tuition Cost of \$2,000.00 paid in FY92. Transportation cost of \$403.00 paid in FY93.

Travel (con't)

<u>Purpose</u>	<u>Name(s)</u>	<u>Destination and Date</u>	<u>Total Cost</u>
Manager Monitoring Semi-Passive Bonds Lincoln New Manager Search Active Bonds Brinson Partners Consultant Meeting Richards & Tierney	J. Lukens A. Thomas	Chicago 7/20-21	\$821.50
New Manager Search Venture Capital ChiCorp Management Manager Monitoring Venture Capital, Real Estate Brinson, Zell, Heitman Consultant Meeting Richards & Tierney	M. Perry	Chicago 7/22-24	\$740.84
New Manager Search Active Stocks Kemper, Brinson Lincoln Consultant Meeting Richards & Tierney	M. Menssen J. Guckeen	Chicago 7/29-31	\$1,317.04
Consultant Meeting Richards & Tierney	H. Bicker	Chicago 8/3-4	\$556.60

Tab D

COMMITTEE REPORT

DATE: September 1, 1992

TO: Members, State Board of Investment

FROM: Proxy Voting Committee

The Proxy Voting Committee met August 18, 1992 to consider the issue of executive compensation. In its May 14, 1992 Resolution on Executive Compensation, the Proxy Voting Committee stated that it would recommend to the Board a policy position on executive compensation and will vote on executive compensation proposals based upon the Board policy position.

The Committee has reviewed extensive background materials on the issue, including proposals from the attorney general, from the chair of the Committee, and from staff.

The Committee agreed that executive compensation should be linked to a company's long-term performance and that the minimum time period for measuring a company's performance is three to five years. Members believe that the best performance measure of a company's long-term performance is return on shareholder equity and that total income, earnings per share, or some multiple of another factor are not alone adequate measures on which to base executive compensation. The Committee further agreed that acceptable forms of executive compensation are a moderate base salary, an annual bonus based upon the company's long-term performance, and stock options not subject to resets, restrictions, or reloads. The Committee identified several unacceptable forms of executive compensation: a guaranteed annual bonus, an annual bonus not based on company performance, restricted stock grants, and stock options where the strike price is reset at a lower price. In addition, the Committee believes that the total amount of executive compensation must not be excessive. Finally, the Committee agreed that the criteria for setting executive compensation should be determined by a committee of the board of directors with each committee member being an outside director.

RECOMMENDATION:

Based upon the information it has gathered and its review of the issue, the Proxy Voting Committee recommends that the Board adopt the attached resolution concerning executive compensation.

**RESOLUTION OF THE
MINNESOTA STATE BOARD OF INVESTMENT
RESOLUTION ON EXECUTIVE COMPENSATION**

WHEREAS, executive compensation is a significant financial concern of shareholders;

WHEREAS, executive bonuses or other incentives are frequently not tied to the long-term performance of a company;

WHEREAS, the State Board of Investment can, as a major institutional investor which is financed by Minnesota's taxpayers and public employees, promote policies which hold boards of directors and executives more accountable;

THEREFORE, BE IT RESOLVED THAT:

1. The State Board of Investment directs the Proxy Voting Committee to:
 - Support efforts to have boards of directors comprised of a majority of independent directors;
 - Support efforts to have compensation committees made up entirely of independent directors;
 - Support efforts to have executive compensation linked to a company's long-term performance,
 - Encourage full disclosure of compensation package for principal executives.
- 2 This resolution shall take effect immediately.

Adopted this _____ day
of September, 1992.

GOVERNOR ARNE CARLSON
Chair, Minnesota State Board
of Investment

Tab E

COMMITTEE REPORT

DATE: September 1, 1992

TO: Members, State Board of Investment

FROM: 403(b) Vendor Review Committee

Laws of Minnesota for 1992, Chapter 487, Section 4 mandates that the SBI retain actuarial consulting services to assist it in selecting up to ten (10) insurance companies to provide 403(b) tax sheltered annuities to school district employees statewide.

At its June 1992 meeting, the SBI authorized a 403(b) Vendor Review Committee to prepare and distribute a request for proposal (RFP) for consulting services and make recommendations to the SBI concerning the selection of a consultant. The Committee members are:

Peter Sausen, Chair	Governor's Designee
Christie Eller	Attorney General's Designee
Jake Manahan	Treasurer's Designee
Lisa Rotenberg	Auditor's Designee
Elaine Voss	Secretary of State's Designee
Dave Bergstrom	IAC Representative, MSRS
Elton Erdahl	IAC Representative, TRA
Laurie Fiori Hacking	IAC Representative, PERA

Review Process

The Committee developed the RFP during May-June 1992. The RFP was formally announced in the State Register on July 6, 1992 and sent to nineteen (19) firms. Six (6) firms responded by the July 24, 1992 deadline. A copy of the RFP document begins on page 5 and a summary list of the candidate firms is on page 17.

The Committee selected four (4) firms for interviews based on its evaluation of the written responses:

A. Foster Higgins
Deloitte and Touche
Milliman and Robertson
The Wyatt Company

Interviews were conducted on August 27, 1992. As part of the interview, each firm was asked to respond to questions developed by the Review Committee. The questions presented to each firm prior to the interview are on page 19.

Conclusion

The Committee found that each finalist firm has resources that could be of assistance to the SBI in accomplishing the tasks set forth in the RFP. However, after reviewing the strengths of each firm, the Committee recommends that the SBI retain The Wyatt Company.

The Wyatt Company was founded in 1943 and is wholly owned by its professionals. The firm has offices in 70 cities worldwide and serves thousands of clients around the world, including corporations, partnerships, sole proprietorships, nonprofit institutions, associations and governments. Wyatt Asset Services, Inc., a subsidiary of the Wyatt Companies, is a registered investment advisor with offices in nine major U.S. cities. It provides a variety of consulting services including investment manager search and performance measurement services. The Portland, Oregon office specializes in consulting on investments such as guaranteed investment contracts and tax sheltered annuity products. The project team that would be assigned to the SBI's 403(b) vendor review project are:

- Victoria Slomiany Project Leader
- Tim Barron Asset Consultant
- Norman Fowlkes Attorney
- Kim McCarrel Asset Consultant
- Shelley Reed Director of Credit Research

As provided in the law, the consultant's fee will be pro-rated among the insurance companies ultimately selected by the SBI. Wyatt's estimated fee is \$33,000-\$37,000. There is no direct charge to the SBI budget for the consulting relationship.

Next Steps

Laws 1992, Chapter 487 requires the SBI to select up to ten (10) insurance companies as 403(b) annuity vendors by January 1, 1993. The Review Committee intends to make its selection recommendations at the December 1992 meeting of the SBI. During September-November 1992, the consultant will assist the Committee in soliciting and evaluating product offerings from insurance companies.

The Committee recognizes that its recommendations on insurance companies must be made within a very tight time frame. The Committee will meet with the consultant in mid

September to establish evaluation criteria and set a specific timetable. In order to accommodate the aggressive schedule, the Committee has directed SBI staff to resolve any implementation issues that may arise directly with the consultant. The SBI executive director will keep the Committee apprised of all actions taken and will call the Committee together, if needed, to keep the project moving forward in a timely manner. The Committee expects to receive the consultant's analysis in early November. The Committee will review the analysis and make its selection recommendations before the SBI meeting in early December 1992.

RECOMMENDATION:

The Committee recommends that the SBI authorize the executive director, with assistance from SBI's legal counsel, to negotiate and execute a contract with The Wyatt Company for 403(b) consulting services.

Attachments:

RFP issued July 6, 1992
Summary list of responses to RFP
Interview questions developed by the Committee

REQUEST FOR PROPOSAL (RFP)

REGARDING THE SELECTION OF ACTUARIAL CONSULTING SERVICES TO ASSIST THE MINNESOTA STATE BOARD OF INVESTMENT (SBI) IN CARRYING OUT ITS RESPONSIBILITIES WITH RESPECT TO 403(b) TAX SHELTER ANNUITY VENDORS.

This RFP does not obligate the SBI to complete the project and the SBI reserves the right to cancel the solicitation if the SBI considers it to be in its best interest.

I. INTRODUCTION

The Minnesota State Board of Investment (SBI) is charged with the investment of approximately \$19.1 billion for the State and related constituents. Of this amount, nearly \$16.1 billion represents retirement funds which the SBI invests on behalf of various State and local governmental employees.

The SBI is seeking consulting actuarial services to assist in the selection of insurance company vendors for investment of employee and employer match monies in 403(b) tax sheltered annuity products. Laws of Minnesota 1992, Chapter 487, section 4, mandates that the SBI retain actuarial services to assist in the selection of up to 10 insurance companies by January 1, 1993. A copy of the law is attached as **Exhibit A**.

The SBI has requested a 403(b) Vendor Review Committee to prepare and distribute a formal RFP to evaluate available consulting services. The Review Committee is comprised of a designee of each of the five Board members and members of the Board's Investment Advisory Council. The Committee will review responses and will recommend a candidate to the SBI for approval. The SBI assumes that the process for evaluating and selecting the consultant will proceed expeditiously and will be completed by September 1992.

In carrying out its responsibilities, the consultant will work closely with the Review Committee, the SBI's Executive Director and other SBI staff, and the SBI's Investment Advisory Council. The contract period will commence on or about September 15, 1992. The SBI expects completion of the contract within three or four months of that date.

II. PURPOSE

The law requires the SBI to select up to 10 qualified insurance companies as 403(b) vendors. Local school districts may provide matching funds up to \$2,000 per eligible employee to be invested in 403(b) annuities. Those districts and bargaining units that

For the employer matching funds for 403(b) annuities will be required to choose more vendors from the insurance companies selected by the SBI

The consultant will be expected to provide a variety of services related to the SBI's statutory mandate concerning 403(b) annuity vendors. These services include, but are not limited to analysis, advice and recommendations on

- o Vendor identification
- o Vendor evaluation and selection
- o Program design and related administrative issues
- o Methodology for on-going monitoring and review

More detailed requirements are set forth in Section IV of this RFP

III. BACKGROUND REGARDING THE SBI

A. Legal Authorization

The SBI was created pursuant to Article XI, Section 8, of the Minnesota Constitution for the purpose of "administering and directing the investment of all state funds." Statutory provisions relating to fiduciary responsibility, portfolio composition, and the types of securities in which the SBI may legally invest are set forth in Minnesota Statutes Chapter 11A and 356A, copies of which are attached as Exhibit B.

B. Composition

By constitutional requirement, the SBI is composed of five (5) elected officials: Governor, State Auditor, State Treasurer, Secretary of State, and State Attorney General.

The Review Committee is composed of a designee of each member of the SBI and two (2) members of the SBI's Investment Advisory Council.

C. Investments and Managers

Currently, the SBI invests in domestic stocks, bonds, real estate, venture capital, resource funds (oil and gas), guaranteed investment contracts and derivative securities. The SBI is developing an implementation plan to add international stocks to one of its funds at the present time.

The SBI has no responsibility for any 403(b) programs at present.

D. Staffing and Support Services

The SBI has a staff of twenty-five (25) persons supervised by an Executive Director. This group manages the day-to-day investment responsibilities. The Executive Director reports investment developments to the SBI at its quarterly and special meetings. In order to carry out its duties effectively, the SBI staff maintains close contact with the Board members and their staffs, the State Legislature, the state-wide and local retirement systems with assets managed by the SBI, and the many firms providing various forms of investment services.

The SBI also receives investment assistance from its 17-member Investment Advisory Council (IAC), whose duties are set forth in Minnesota Statutes 11A.08. The IAC is composed of the State Commissioner of Finance, the Executive Directors of the three statewide retirement systems whose funds are invested by the SBI, a retiree representative, two active employee representatives and ten persons knowledgeable in general investment matters. The IAC's duties are to advise the SBI on general investment policy matters and perform other advisory tasks as the SBI requests.

Charts illustrating the SBI's functional organizational structure and decision making process are included as **Exhibits C and D**.

IV. DUTIES OF THE CONSULTANT

Vendor Identification

The universe from which the selection will be made will be limited to insurance companies licensed to engage in life insurance and annuity business in Minnesota. Under the law, a qualified insurance company is a company that is determined by the Commissioner of Commerce to have a rating within the top two rating categories by a recognized national rating agency or organization that regularly rates insurance companies. However, the consultant may identify other insurance companies that should be considered for approval.

Vendor Selection

The tasks for the actuarial services provider include constructing and disseminating a request for proposal to potential insurance company vendors and evaluating responses. The evaluation of responses will include reviewing the financial strength of responders, the market presence of responders in the 403(b) annuity market, and the quality and competitiveness of the specific 403(b) annuity products offered by responders. The consultant will narrow the list of potential insurance company vendors to no more than 25 companies. In addition, the consultant will rank the companies overall and within the categories of financial strength, market presence and quality and competitiveness

of product. The Review Committee will recommend 10 firms to the SBI from the group presented by the consultant.

Model Contract

In addition, the consultant will be expected to assist in the design of a model contract between the SBI and the selected insurance companies which addresses specific SBI concerns. These concerns include:

- o appropriate restrictions which ensure that employer and employee-match contributions remain invested with one or more of the selected insurance companies. The restrictions should prevent employees from transferring employee and employer-match monies to a non-approved company. Also approved companies should be prevented from selling or transferring the individual 403(b) contracts to a non-approved company.
- o procedures to withdraw monies from companies that no longer meet the quality standards necessary for inclusion on the list of approved companies and place it with another approved company.
- o setting comparable and explicit marketing and communication efforts and formats. In particular, fees, expenses and transfer restrictions should be concisely and simply communicated from all approved companies to the employees contributing to the annuities.
- o procedures that assure compliance oversight with IRS guidelines and rules which govern employee contributions/distributions and plan non-discrimination.

On-Going

Also, the consultant should propose a process for periodic review of the qualified or approved insurance companies. In addition, the consultant should recommend a policy to replace companies that no longer meet the quality standards necessary for inclusion on the list of approved companies.

Availability

The consultant must be available to meet at SBI offices with the Board, the Review Committee, the SBI's Executive Director and staff, and other State agencies or the IAC, as needed, to assure timely completion of the tasks set forth in this section. This includes on-site availability for any potential reviews of insurance companies conducted by the Review Committee.

Timetable

The consultant's proposed RFP for insurance companies is due by September 30, 1992. The SBI expects that the consultant will provide the model contract and evaluation rankings by November 2, 1992. The vendor selections are expected to be approved by the Board at its scheduled December 2, 1992 meeting.

V. PREPARATION OF PROPOSAL

The consultant's response to this RFP shall be organized in the following manner. **Please observe the page limits shown for each section.** Please note that consultants will be evaluated, in part, on their ability to communicate clearly and succinctly. **Brevity will be appreciated.**

Section 1: Work Plan

Page Limit: No more than 8

- o A statement of the services the consultant is prepared to provide the SBI in order to respond to the duties delineated in Section IV of this RFP. If necessary, provide a statement of any other tasks the consultant believes must be performed to completely meet the SBI's needs.
- o The consultant's operational plan and detailed timetable for fulfilling the above.
- o A statement of any expected tasks or contributions by the State of Minnesota (including the members of the Board, the Consultant Review Committee, the SBI staff, any other State agencies or the IAC) necessary to provide documents or other data needed by the consultant to accomplish the work plan.
- o Designation of a project manager and project team for the consulting relationship.

Section 2: Organization and Personnel

Page Limit: No more than 3

- o A description of the organization which includes the following information:
 - Date business commenced.
 - Ownership structure.
 - Affiliation with other firms (i.e. parent companies, insurance companies, brokerage firms, mutual funds, investment banking firms or other entities).

- Description of the firm's financial position and sources of revenue
 - Description of any litigation pending against the firm.
 - Brief description of the firm's capacity to undertake this consulting relationship
- o The consultant should name counsel they propose to employ in connection with legal issues that may arise with fulfillment of the duties under the contract

Please disclose business relationships of counsel with prospective applicant insurance companies

- o A brief resume or biography of each professional staff person to be assigned to this consulting relationship, outlining their qualifications, previous experience in similar tasks or engagements and the relative contribution of each

Section 3: Potential Conflicts of Interest

Page Limit: No more than 2

Each consultant must disclose in its response to this RFP whether and to what extent it has affiliations with providers of 403(b) annuity products that may be eligible for selection

Section 4: Analytical Services and Selection Criteria

Page Limit: No more than 3

- o A list of outside analytical services used such as Moody's, A M Best, etc
- o A list of relevant publications and research reports produced by the consultant within the last 2 years
- o Criteria used to rank insurance companies

Section 5: Experience and References

Page Limit: No more than 7

- o A presentation of the previous experience of the consultant with similar tasks or engagements and the current capacity of the consultants to provide appropriate experienced staff to this engagement.
- o A list of all 403(b) and other tax deferred clients under contract within the last three years

- o A list of at least three references from the above list. The references shall include the name, title, organization, address and phone number of the consultant's primary contact at the client organization.

Section 6: Fee Proposal

Page Limit: No more than 2

- o An estimate of the total fee necessary to complete the consultant's proposed work plan. The fee estimate must include a breakdown of the costs attributable to each of the services included in the consultant's proposal as well as the estimate of time necessary to satisfactorily complete each step of the project.
- o A statement that the fee estimate is valid for a minimum of ninety (90) days. This period may be extended by mutual agreement between a consultant and the 403(b) Vendor Review Committee.

Section 7: Certificate of Compliance

Page Limit: No more than 1

- o A copy of the consultant's Certificate of Compliance from the State of Minnesota Department of Human Rights pursuant to Minnesota Statutes Section 363.073, or certification in writing that the consultant has not had more than twenty (20) full time employees at any time during the twelve (12) months preceding the date of this RFP. A copy of the applicable statute is in **Exhibit E**.

Section 8 Insurance Company RFP Outline and Model Contract Outline

Page Limit: None Specified

- o A topical outline of the RFP which would be used in the selection process of 403(b) insurance company vendors.
- o A model contract outline for use between the SBI and the approved insurance companies that, among other things, addresses the SBI's specific concerns as outlined in Section V. This contract will be used by the consultant in the search process for the approved insurance companies.

VI. SUBMISSION OF RESPONSE

The consultant shall submit twenty (20) copies of its RFP response to the SBI at the following address:

John Griebenow
Manager, Alternative Investments
Minnesota State Board of Investment
Room 105, ME Building
55 Sherburne Avenue
St. Paul, MN 55155

(612) 296-3328

- o No proposal received after 3:00 P.M. Central Time on July 24, 1992 will be considered.
- o One (1) copy of the response must be unbound and signed in ink by an authorized officer of the responding firm.
- o Each copy of the response must be sealed in a mailing envelope or package with the consultant's name and address clearly written on the outside. Please identify the unbound copy on the outside of its envelope as well.

VII. RFP TIMETABLE AND RELATED REQUIREMENTS

RFP Issued. 7/6/92

Consultants' proposals due. 7/24/92

**NO PROPOSALS RECEIVED AFTER 3:00 P.M.
CENTRAL TIME ON July 24, 1992 WILL BE
CONSIDERED.**

Proposals evaluated by the Consultant
Review Committee. July-August 1992*

The Review Committee may require that a consultant submitting a proposal make an oral presentation to the Committee during the evaluation process. In such event, the committee shall notify the consultant of the time and location of same

Consultant selected by the SBI. September 1992*

Contract completed and executed.

September 1992*

* Projected dates, subject to change.

VIII. INFORMATION CONTACTS

The SBI's exclusive agents for purposes of responding to consultants' inquiries on RFP requirements is:

John Griebenow
Manager, Alternative Investments

Minnesota State Board of Investment
Room 105, MEA Building
55 Sherburne Avenue
Saint Paul, Minnesota 55155
Telephone: (612) 296-3328

Other persons are not authorized to discuss RFP requirements with consultants before the proposal submission deadline.

The SBI shall not be bound by and consultants may not rely on information regarding RFP requirements obtained from non-authorized persons.

IX. PROPOSAL SELECTION

A. Nature of Procurement.

This procurement is undertaken by the SBI pursuant to the provisions of Minnesota Statutes 16B.17, a copy of which is attached as **Exhibit F**. As such, it is not governed by strict competitive bidding requirements frequently associated with the purchase of supplies and materials by the State and selection will not be based exclusively on the concept of lowest responsible bidder. The SBI reserves the right to waive minor informalities.

Accordingly, the SBI shall select the Consultant whose proposal and oral presentation, if requested, demonstrate, in SBI's sole opinion, clear capability to best fulfill the purposes of the RFP in a cost effective manner. The SBI reserves the right to accept or reject proposals, in whole or in part, and to negotiate separately as necessary to serve the best interest of the State of Minnesota.

B. Selection Criteria.

The evaluation of proposals will be based on:

1. **The quality and completeness of the consultant's work plan as it relates to the prescribed duties.** The approach, methodology and techniques should be appropriately specific, logical and organized. The consultant must demonstrate the capability to gather the necessary information, develop fully supportable conclusions, and communicate findings and recommendations clearly and succinctly
2. **The consultant's demonstrated knowledge and experience in the areas related to the project.** It is imperative that the consultant has been frequently and recently engaged in the field of investment consulting for evaluation of potential 403(b) vendors and products
3. **The quality of staff to be assigned to the project and available support.** The consultant must assign to this contract, in terms of numbers and quality, sufficient staff with experience in the evaluation of 403(b) products and vendors. The consultant should explain to the best of its ability to what extent back-up professional personnel are available to substitute for loss of professional personnel identified as necessary in the proposal
4. **The consultant's demonstrated ability to communicate effectively.** The consultant's ability to communicate with both technical and non-technical audiences will be evaluated.
5. **The consultant's demonstrated ability to manage the work plan effectively and assure the successful fulfillment of its duties.** The plan for performing and managing the contract, including the framework within which the project team will function relative to the State, will be evaluated. The consultant should demonstrate its ability to manage and control its duties, including specification of the reporting mechanisms and inter-relationships between the contracting parties.

X. COST AND METHOD OF PAYMENT

- o All costs relating to the proposal shall be explained in detail
- o The SBI reserves the right to reject a consultant's bid on the basis of cost.
- o The law mandates that the SBI "establish a budget for its costs in the determination process" and "charge a proportional share of that budget to each insurance company selected." Payment of services will be made only upon satisfactory completion of the consultant's duties, execution of contracts with the

selected insurance company vendors, and receipt of payment to the SBI from the selected insurance company vendors.

XI. PERIOD OF CONTRACT

The initial contract shall be for the period commencing on or about September 15, 1992 and ending in January 1993.

By Minnesota law, the contract may be canceled by the State or the contractor at any time, with or without cause, upon thirty (30) day written notice to the other party.

XII. PUBLIC STATUS OF PROPOSALS SUBMITTED

Pursuant to Minnesota law, all proposals submitted in response to this RFP shall become the property of the State of Minnesota. Such proposals shall also constitute public records and shall be available for viewing and reproduction by any person.

DATE: June 23, 1992

403(b) CONSULTANT CANDIDATES

Submitted proposal in response to RFP

A Foster Higgins
Alexander and Alexander
Deloitte & Touche
William M. Mercer
Milliman & Robertson
The Wyatt Company

Declined by phone or letter or did not respond

Bordewick & Company
W.F. Corroon Corporation
Developmental Resources, Inc.
Employee Benefit Specialists, Inc.
Ernst & Young
Foremost Benefit Consultants
Gabriel Roeder Smith & Company
Hewitt Associates
Larson, Allen, Wisher and Company
Messerli and Kramer
Pension Consultants, Inc.
Tax Sheltered Compensation, Inc.
Towers Perrin

403(b) Consultant Interview Questions
August 27, 1992

1. Our RFP delineated several issues. Please give us your suggestions or problems pertaining to each of the following:
 - proposed timetable
 - vendor selection process--vendor criteria
 - vendor ranking
 - model contract
2. How will insurance companies react to what the SBI is trying to accomplish?
3. Are there 25, or even 10, insurance companies that are worthy of selection as a 403(b) vendor?
4. How many and what type of 403(b) products will be made available from insurance companies? How do you evaluate product offerings?
5. How will the diversity/range and competitiveness of product offerings from the selected insurance companies differ from what they are currently offering?
6. Respond to our position requiring a model contract.
7. Describe your policy for ongoing periodic review of the selected insurance companies. What do we do if companies no longer meet quality criteria?
8. What is the best example of your most relevant experience regarding a 403(b) work project of this nature?
9. Do you understand how you will be paid? Payment of services will be made only upon satisfactory completion of the consultant's duties, execution of contracts within the selected insurance company vendors, and receipt of payment to the SBI from the selected insurance company vendors.

Tab F

COMMITTEE REPORT

DATE: September 1, 1992

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

FROM: **Stock and Bond Manager Committee**

The Stock and Bond Manager Committee met on August 17, 1992 to consider the following agenda items:

- Review of manager performance.
- In-depth review of Franklin Portfolio Associates.
- In-depth review of Lehman Ark Management.
- Review of active stock managers to be included in the Manager Monitoring Program.

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

INFORMATION ITEMS:

1) Review of Manager Performance

- **Stock Managers**

For the quarter ended June 30, 1992, the Basic Funds' domestic equity program underperformed its aggregate benchmark and the Wilshire 5000 Adjusted (Equity Program -0.6%; Aggregate Benchmark -0.1%; vs. Wilshire 5000 Adjusted 0.0%). The current equity managers in the Basic Funds outperformed their aggregate benchmark and the Wilshire 5000 Adjusted for the latest year (Equity Program 14.9%; Aggregate Benchmark 13.8%; vs. Wilshire 5000 Adjusted 13.6%). For the latest five year period, the current equity managers also outperformed their aggregate benchmark and the Wilshire 5000 Adjusted.

- **Bond Managers**

For the quarter ending June 30, 1992, the Basic Funds' domestic bond program underperformed the Salomon BIG 3.9% vs. 4.06 %. Primarily, returns were less

than the market because the managers in aggregate had a barbelled portfolio, anticipating that the yield curve would flatten. Instead it steepened and caused performance to suffer. The bond program outperformed the Salomon BIG over the last year (Bond Program 14.7%; Salomon BIG 14.2%) and matched the BIG over the last five years.

The stock manager value of active management (VAM) evaluation reports and investment commentaries start on page 109. The bond manager reports and commentaries start on page 129.

2) In-depth Review of Franklin Portfolio Associates

The SBI's Manager Continuation Policy requires that an in-depth review be conducted every three years for each active manager. This quarter, staff prepared an in-depth review of Franklin Portfolio Associates. A copy of the staff's full report is attached starting on page 5. A summary of staff's findings follows

- **Quantitative**

Since the inception of the account in April 1989, Franklin has provided negative value added versus an appropriate benchmark at an annualized rate of -0.43%. Franklin maintains a valid and investable customized benchmark.

- **Qualitative**

Franklin has an experienced and stable investment staff as well as low turnover among its investment personnel. Their investment approach has been consistently applied since the inception of the account.

Franklin has provided negative value added from stock selection of -0.47% annualized since inception. This is a concern to staff since stock selection is the area of Franklin's expertise and value added is expected to be positive. At this point, this is only a minor concern since the analysis was done on the limited amount of data available since the inception of the account. It is an issue which staff will continue to monitor and address in the future as necessary.

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

3) In-depth Review of Lehman Ark Management

An in-depth review of Lehman Ark was requested by Auditor Dayton at the June 1992 Board meeting. Staff conducted the review as a follow-up to the document that was

part of the December 1990 quarterly report. The new review showed that Lehman has more actively managed their portfolio but still underperformed due to poor duration decisions. A copy of the staff's full report is attached starting on page 25. Highlights from the review are:

Qualitative

- Lehman continues to avoid risk by investing in high quality intermediate maturity bonds. Lehman uses its prediction of interest rate and economic trends to position the portfolio in terms of duration, quality and sectors. Lehman avoids large short-run portfolio shifts and changes portfolio composition gradually over the economic cycle. Lehman also tries to add value through security selection. Lehman has generally followed this investment philosophy.

Quantitative

- Lehman has underperformed their benchmark since inception (12.3% actual vs. 12.5% benchmark annualized) and continued to underperform their benchmark since the last review. Lehman underperformed due to poor sector and duration decisions. According to analysis provided by Lehman, these poor decisions were partially offset by added value through trading activities and security selection.

Staff concluded that the SBI should continue to retain Lehman at the present time. Staff also recommended that the SBI should consider replacing Lehman if higher value-added managers can be identified through a manager search process which is scheduled during the first half of calendar 1993. Upon review, the Committee concurs.

4) Review Equity Manager Monitoring Program Candidates

The Committee discussed potential candidates for the Equity Manager Monitoring Program. The purpose of this program is to monitor closely those managers which are likely to be included in future active domestic equity manager searches.

Existing candidates in the program are shown below. These firms were identified through the recent manager search conducted in late calendar 1991:

Brandywine Asset Management
Fayez Sarofim
Fisher Investments

Investment Advisers
Mitchell Hutchins

Last quarter staff conducted its first annual solicitation of new candidates for the Equity Manager Monitoring Program from the Board, IAC and consultant. The staff received the following suggestions:

Aronson + Fogler	Lincoln Capital Management
Brinson Partners	Martingale Asset Management
Equitable Capital Management	Oppenheimer Capital Management
Jennison Associates	United Capital Management
Jundt Associates	Weiss Peck & Greer
Kemper Asset Management	

Descriptions and return history of both groups of managers are found starting on page 45.

The Committee reviewed the qualitative and quantitative data on all of the candidates and evaluated their suitability for future equity manager searches. The Committee selected the following ten (10) firms for the Equity Manager Monitoring Program:

Firm	General Style Orientation
Brandywine Asset Management	Medium Capitalization/Value
Brinson Partners	Medium Capitalization/Value
Equitable Capital Management	Large Capitalization/Growth
Investment Advisers-Regional Fund	Small Capitalization/Growth
Jundt Associates	Large Capitalization/Growth
Kemper Asset Management	Medium Capitalization/Growth
Lincoln Capital Management	Large Capitalization/Growth
Mitchell Hutchins-Uncommon Value	Small Capitalization/Value
Oppenheimer Capital	Medium Capitalization/Value
Weiss Peck & Greer	Small Capitalization/Growth

The diversity of styles included in the group will provide a good base for future domestic active stock manager searches. Staff expects that a search committee will be convened in the first half of calendar 1993.

**Detailed Review of
Franklin Portfolio Associates
August 1992**

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I. Organizational Detail

A. Ownership

Franklin Portfolio Associates was founded in 1982 by John Nagorniak. It is an independently managed subsidiary of Mellon Bank Corporation.

B. Professional Staff

John Nagorniak is the portfolio manager for the SBI account. He has managed the account since its inception in April 1989.

C. Assets Under Management

As seen in Table I, Franklin had approximately \$4.9 billion in assets under management as of the end of the first quarter of 1992. There was \$1.2 billion in the active management discipline, with the SBI's account comprising \$166 million of these assets.

Table I

**Franklin Portfolio Associates
Historical Assets
(\$ in millions)**

<u>Year End</u>	<u># Accts</u>	<u>Total Assets</u>	<u>Total Core</u>	<u>Total Active</u>
1982	2	\$ 125.0	\$ 76.6	\$ 48.4
1983	6	328.0	191.2	136.8
1984	11	482.9	189.5	293.4
1985	25	1,443.1	435.2	1,007.9
1986	36	2,173.0	704.0	1,469.0
1987	40	2,177.1	876.0	1,301.1
1988	40	2,802.9	1,324.4	1,478.5
1989	43	3,442.8	2,056.5	1,386.3
1990	42	4,031.3	2,652.5	1,378.8
1991	39	4,949.9	3,315.3	1,634.6
Q1 1992	39	4,890.0	3,649.9	1,240.1

D. Personnel Turnover

Franklin maintains extremely low turnover among professional staff. No investment professionals have left the firm since its inception in 1982.

II. Investment Approach

A. Investment Philosophy

Franklin's investment process is driven by the firm's belief that consistent application of an integrated multiple valuation approach will provide investment results superior to an approach which relies on a limited number of valuation criteria.

Franklin's emphasis is on stock selection. Using a quantitative process, the firm attempts to select relatively more attractive issues consistently, rather than finding "hot stocks". Franklin neutralizes a substantial portion of market and sector exposures.

Franklin does not market time and remains fully invested at all times.

B. Investment Process

Stock Selection

Stock selection is the core of Franklin's investment process. The firm uses a quantitative approach to make investment decisions. The selection process begins with a universe of over 3800 stocks. Illiquid issues are eliminated, leaving approximately 3500 securities. This universe is then screened by a quantitative model which uses over 30 valuation measures to rank relative attractiveness. Each valuation measure falls into one of the following major input groups:

- **Fundamental Momentum** -- These valuation measures track fundamental variables such as earnings and earnings estimates. Changes in these variables are analyzed to identify companies where recent and forecasted events are relatively favorable or unfavorable. The fundamental momentum factors determine approximately 40% of the relative attractiveness of a particular security.
- **Relative Value** -- Valuation measures in this group include pricing variables such as present and forecast P/E ratios and yields. These variables are examined relative to both the past history of the security and Franklin's broad universe. The model gives a weight of approximately 25% to this area when determining relative attractiveness.
- **Future Cash Flow** -- Valuation measures in this group include forecasts of returns on capital, earnings and dividends made by both computer and analyst generated forecasts. These forecasts are related to future stock prices, using various financial discounting models. They

determine values that are then compared across Franklin's universe. The model gives a weight of approximately 25% to valuation measures from this group when determining relative attractiveness.

- **Supplementary** -- Some valuation measures are variables that complement other input groups, such as an analysis of insider trading. The model gives a weight of approximately 10% to this area when determining relative attractiveness.

The valuation model then ranks securities by their relative attractiveness. Stocks are ranked in ten deciles, first is most "undervalued" and tenth is "most overvalued." The top decile is then screened qualitatively for financial distress, pending litigation, and other fundamental problems. Issues that pass this screen are eligible for purchase. If there are an insufficient number of names in the first decile to provide adequate diversification opportunities, Franklin will look at securities in the second decile for buy candidates.

Franklin uses a computer program to determine which buy candidates will be purchased. When the portfolio is rebalanced, the program starts with the existing portfolio and removes those securities which are on the sell list. It then uses the list of buy candidates to determine which securities need to be added to the remaining portfolio in order to create an actual portfolio which most closely matches the risk profile of the benchmark. The securities selected in this process are then purchased for the SBI account.

All securities are reviewed by the investment group before they are purchased to ensure that the valuation ranking for a security accurately reflects its attractiveness. The group rarely overrides the recommendations generated by the investment process.

Franklin performs this process twice a month.

Sell Criteria

After initial construction of the portfolio, all transactions are sell driven. Buys are effected only after unattractive issues are sold. Most securities are held until they fall into decile six or lower, at which time they are automatically sold and replaced by a first decile security. Securities that experience major fundamental deterioration are sold regardless of decile rank. A substantial decline in the stock's price or major news event will precipitate review of the security.

Research

Franklin does not perform internal security research in the traditional sense. Instead, Franklin's research process concentrates on improving the firm's

investment methodology. Franklin uses external research as input into its valuation model and devotes its internal resources to analyzing and refining its proprietary valuation models.

C. Prominent Characteristics

Since the inception of the account, Franklin has held an average of 64 securities in the SBI portfolio. Currently there are 45 securities in the portfolio.

Consistent with Franklin's investment philosophy, the portfolio generally has been fully invested, with an average cash level of 2.37%. Exhibit 1 provides more detail regarding historical cash levels in the portfolio.

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

Risk Exposure Highlights

As seen in Exhibit 2, Franklin's historical portfolios tend to have a higher exposure to the Earnings/Price, Book/Price and Earnings Variability risk factor exposures relative to the BARRA Hicap Universe, with the E/P factor being the strongest. The portfolios tend to have a negative exposure to the size and foreign income risk, with size being the greatest negative exposure.

Sector Exposure Highlights

Exhibit 3 illustrates that Franklin has an overweighting in the financial sector which is twice that of the S&P 500. It also has an overweighting in the utility sector. Franklin maintains underweightings in the energy and consumer non-durable sector relative to the S&P 500.

III. Benchmark Analysis

A. Benchmark Construction Process

Since the inception of the account, Franklin has used the following benchmark construction methodology. The process begins with the Russell 1000 less the SBI restricted issues as the initial universe. Franklin takes the top 500 from this universe and equally weights the bottom 450 and equally weights the top 50, with each stock in the top 50 getting twice the weight of the lower 450. Franklin adjusts this benchmark quarterly.

Franklin made a minor adjustment to its benchmark construction process effective July 1, 1992. Staff was concerned because a few industry groups

comprised a large portion of the Franklin benchmark. Franklin concurred and has adjusted its benchmark construction process so that no industry will comprise more than 5% of the benchmark. The industry exposure profile of the revised benchmark is now more consistent with the profile of the actual portfolio.

The revised process still uses the Russell 1000 as its beginning universe. From this, the restricted issues are removed. Franklin ranks the remaining issues in descending order according to market capitalization. The firm then starts from the top of the list and selects 500 issues. Securities in the benchmark are weighted as before. The top 50 stocks according to market capitalization are equal weighted and the bottom 450 are equal weighted as well, with the top 50 receiving twice the weight of the bottom 450. These weights are applied so that the constraint regarding the 5% industry concentration is not violated. If the weighting of a security would violate the industry constraint, that security is excluded from the benchmark, and another is added. Franklin repeats this process on an annual basis. Quarterly, the firm revises the benchmark to adjust for price changes in the individual issues and for changes in the restricted securities.

Franklin allows for a cash component in its benchmark. From April 1989 to December 1990, cash comprised 5% of the benchmark. Since January 1991, the benchmark contained 2.5% cash.

The benchmark analysis that follows is based on data from the historical benchmark used prior to July 1992.

B. Benchmark Explanatory Power

Franklin's benchmark provides a good base from which to measure the firm's performance. It is a valid benchmark because it exhibits the same characteristics found in a good benchmark. These characteristics are described in greater detail below.

Benchmark Risk Factor and Sector Exposure Profile

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

Exhibit 2 shows that the means of the risk factors from the actual portfolio are similar to those of the benchmark average for all the risk factors. This indicates that the risk factor exposures for the benchmark are essentially the same as those of the actual historical portfolios. Exhibit 3 shows that the same is true for the sector exposures. The actual portfolio weight less the benchmark weight should be minimal. As expected, this is true for Franklin's benchmark.

Benchmark Coverage, Active Positions and Turnover

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

	<i>Benchmark Coverage</i>	<i>Positive Active Positions</i>	<i>Quarterly Benchmark Turnover</i>
Average	88.0%	99.9%	9.6%
Minimum	67.6	99.4	1.0
Maximum	100.0	100.0	61.9
Std. Deviation	11.2	0.2	17.3

Benchmark coverage measures the percentage of securities held in the actual portfolio which also are contained in the benchmark portfolio. If a benchmark truly captures the securities on which the manager has an opinion, it will have a high coverage ratio. Coverage ratios vary according to the level of discipline exhibited in a manager's definition and implementation of its investment process. A valid benchmark should produce a coverage ratio of 80-90%. As seen in Table II, Franklin's average benchmark coverage ratio is 88%, which is well within that range.

An *active position* is the difference between the actual portfolio weight of a security less the corresponding benchmark weight of the same security. A good benchmark will generate positive active positions with very rare exceptions. The weighting of each holding in the active portfolio should exceed the corresponding weights assigned to the same securities in the benchmark because if a manager finds a particular stock attractive, he will hold more than the benchmark position. Conversely, if a manager feels a security is unattractive, he will not hold the security at all, rather than underweighting it relative to the benchmark. As seen in the above table,

the percentage of positions in Franklin's portfolio which are positive is nearly 100%.

Benchmark turnover measures the proportion of the benchmark's market value allocated to purchases and reinvestment of income during a periodic rebalancing. A valid and investable benchmark should experience reasonable levels of turnover. Quarterly turnover in the 15%-20% range is consistent with a passive investment in the benchmark. The Franklin benchmark experiences average quarterly turnover of 9.6%, which is fairly low.

The turnover, coverage and active positions data on Franklin are well within the acceptable guidelines for benchmarks, indicating that from this standpoint, the Franklin benchmark represents a valid and investable benchmark.

Benchmark Explanatory Power

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

Table III

***Franklin Portfolio Associates
Active Risk Analysis
4/1/89 to 3/31/92***

	Actual vs. <u>Benchmark</u>	Actual vs. <u>W5000</u>
Cumulative Annualized VAM	- 0.41	-2.77
Annualized Standard Deviation of VAM (Active Risk)	3.33	4.87
Information Ratio	-0.12	-0.57
Information Ratio T-statistic	-0.22	-1.00
Percentage of months VAM > 0	61.10	47.20

The Franklin customized benchmark exhibits lower active risk than does using the Wilshire 5000 as a benchmark (3.33 versus 4.87). Although the active risk is lower, the analysis still does not produce a statistically significant t-statistic for the IR (-0.22). This indicates that the analysis cannot confirm at a reasonable confidence level whether or not the manager can add value relative to its benchmark. More observations, achieved through the passage of time, will be necessary to provide this confirmation. However, the lower active risk relative to the Wilshire 5000 does indicate that Franklin's benchmark is a valid one.

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

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

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

Table IV

**Franklin Portfolio Associates
Residual Correlation Matrix
4/1/89 to 3/31/92**

	<u>EXM</u>	<u>MFT</u>	<u>VAM</u>
Portfolio vs. Market (EXM)	1.00		
Benchmark vs Market (MFT)	0.73	1.00	
Portfolio vs Benchmark (VAM)	0.58	-0.13	1.00

As one would expect from a good benchmark, the Franklin customized benchmark exhibits a high degree of correlation between the EXM and MFT residual data series (0.73) as well as an essentially zero correlation between MFT and VAM (-0.13).

The above characteristics of the historical Franklin benchmark indicate that it is a valid and investable benchmark.

IV. Performance Analysis

The following conclusions can be made regarding Franklin's performance:

1. Franklin's benchmark provides a better basis from which to evaluate Franklin's performance than does a broad market average. Therefore, conclusions drawn from analysis using the benchmark as a base are more reliable than those drawn from a broad market average.
2. As seen in Exhibit 4, Franklin has provided cumulative returns of 39.09% since inception, versus 40.80% for its benchmark. The actual portfolio has

outperformed the benchmark in five out of 13 quarters. The VAM graph in Exhibit 5 shows that Franklin has provided negative value added at an annualized rate of 0.43% (actual return of 10.69% versus benchmark return of 11.12%) since the inception of the account.

3. Performance attribution completed on the period May 1989 through June 1992, indicates that sector allocation provided positive value added of 1.21% annualized, stock selection provided -0.47% annualized and other provided -1.55% annualized. See Exhibit 6 for further detail.

Franklin calculates performance attribution on a monthly basis. The attribution is broken down into two areas: sector bets and stock selection.

Sector allocation measures the contribution to performance of the allocation of portfolio assets among various sectors and industries relative to the benchmark. In the time period May 1989 through June 1992, sector allocation added value of 3.78%, or 1.21% annualized. Exhibit 7 shows that the majority of the value added came from Franklin's exposure to the BARRA Risk Factors, with the success and E/P factors providing the most value added. Exposure to the consumer non-durables sector detracted the most from the total value added.

Stock selection measures the contribution to performance of the specific securities held in the portfolio. Stock selection has provided value added of -1.45% in the time period of May 1989 through June 1992. This is an annualized value of -0.47%. Franklin does not calculate performance attribution for the stock selection portion by sectors.

The Other section of the portfolio attribution measures the effects of management fees, intra-month trading, trading costs and cash on the portfolio returns. These items provided value added of -1.55% annualized since May 1989.

V. Summary of Board/IAC Actions to Date

In March 1989, the Board approved the hiring of Franklin Portfolio Associates and in April 1989, the firm received initial funding of \$100 million.

In December 1990, Franklin received \$20 million in additional funds.

VI. Conclusion

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

Qualitative

- Franklin has an experienced and stable investment staff. Their firm has experienced no turnover among its investment professionals and John Nagorniak has managed the SBI account since its inception.
- The firm's investment approach has been consistently applied since the inception of the account.
- Franklin has maintained a consistent number of accounts during the past five years and a manageable number of assets.
- Franklin has created and continues to maintain an appropriate benchmark portfolio.

Quantitative

- Franklin has provided annualized value added of 10.69% versus 11.12% for its benchmark since the inception of the account. Although this value added is negative, Franklin's performance falls well within the confidence intervals found on the VAM graph (Exhibit 5).
- Staff has a slight concern regarding the performance attribution results. Since stock selection is the core of the firm's investment process, one would expect that Franklin would experience positive value added from this area. This has not been the case, as stock selection has provided an annualized -0.47% to Franklin's performance. Due to the relatively short time frame, this is not a major concern to staff, but it is one that should continue to be monitored in the future.

At this time, Staff recommends that Franklin continue to be retained as an active equity manager.

Exhibit 1
Franklin Portfolio Associates
Actual Portfolio
Historical Cash Levels

<i>Year</i>	<i>Qtr</i>	<i>Percent In Cash</i>
1989	Q2	1.24
	Q3	1.50
	Q4	2.22
1990	Q1	5.15
	Q2	0.91
	Q3	2.03
	Q4	1.43
1991	Q1	3.63
	Q2	3.08
	Q3	2.49
	Q4	2.12
1992	Q1	2.62
Average		2.37
Minimum		0.91
Maximum		5.15
Standard Deviation		1.17
Benchmark Average		3.85

Exhibit 2
Risk Analysis Summary
Franklin Actual Portfolio

		<i>Var. Mkts</i>	<i>Success</i>	<i>Size</i>	<i>Trading</i>	<i>Growth</i>	<i>E/P</i>	<i>BP</i>	<i>Earn. Var.</i>	<i>Fin. Lev.</i>	<i>For. Inc.</i>	<i>Labor Int.</i>	<i>Yield</i>
1989	Q2	0.26	0.05	-0.78	0.13	0.19	0.16	0.11	0.21	-0.03	-0.55	0.04	-0.16
	Q3	0.27	0.13	-0.79	0.09	0.20	0.20	0.10	0.25	-0.03	-0.52	0.11	-0.18
	Q4	0.30	-0.07	-0.84	0.17	0.30	0.25	0.14	0.32	0.06	-0.52	0.08	-0.26
1990	Q1	0.26	-0.02	-0.90	0.06	0.22	0.40	0.22	0.38	-0.08	-0.60	-0.05	-0.13
	Q2	0.14	-0.12	-0.75	0.05	0.14	0.39	0.26	0.25	-0.13	-0.58	-0.10	-0.08
	Q3	0.19	-0.24	-0.64	0.21	0.07	0.44	0.24	0.31	-0.11	-0.48	-0.16	0.00
	Q4	0.22	-0.14	-0.52	0.15	0.06	0.39	0.20	0.28	0.07	-0.38	-0.11	-0.04
1991	Q1	0.08	-0.05	-0.31	0.17	0.10	0.28	0.11	0.17	-0.04	-0.43	-0.14	-0.10
	Q2	0.22	0.04	-0.33	0.13	0.07	0.05	0.19	0.10	-0.15	-0.40	-0.08	-0.07
	Q3	0.26	0.27	-0.41	0.07	0.08	0.31	0.16	0.02	-0.14	-0.49	-0.04	-0.09
	Q4	0.23	0.07	-0.37	0.10	-0.02	0.35	0.24	0.16	-0.18	-0.49	-0.11	-0.02
1992	Q1	0.12	0.06	-0.50	0.10	-0.12	-0.12	0.28	0.09	-0.13	-0.37	0.00	0.12
Mean		0.22	0.00	-0.60	0.12	0.11	0.28	0.19	0.21	-0.07	-0.48	-0.05	-0.08
	Maximum	0.30	0.27	-0.31	0.21	0.30	0.44	0.28	0.38	0.07	-0.37	0.11	0.12
	Minimum	0.12	-0.24	-0.90	0.05	-0.12	-0.12	0.10	0.02	-0.18	-0.60	-0.16	-0.26
	Std. Deviation	0.05	0.14	0.21	0.05	0.11	0.15	0.06	0.11	0.08	0.08	0.09	0.10
Benchmark Mean		0.20	-0.11	-0.59	0.11	0.05	0.03	0.12	0.13	-0.07	-0.40	-0.03	-0.04

Exhibit 3

Franklin Portfolio Associates

Sector Weights

April 1984 to March 1992

Actual Portfolio Weight Less Benchmark

	<i>Cons Non-Dur</i>	<i>Cons. Dur.</i>	<i>Basic Materials</i>	<i>Capital Goods</i>	<i>Energy</i>	<i>Tech</i>	<i>Trans.</i>	<i>Util.</i>	<i>Financial</i>
<i>Minimum Portfolio</i>	-6.52	-2.82	-6.39	-2.69	-4.57	-2.21	-2.68	-6.43	-2.46
<i>Portfolio Average</i>	1.52	-0.78	-0.75	-0.66	0.65	0.74	-1.20	-0.23	0.71
<i>Maximum Portfolio</i>	6.57	1.13	2.31	1.63	3.92	2.96	0.49	4.81	5.07
<i>Benchmark Average</i>	30.37	3.97	10.99	5.89	5.69	5.46	2.65	16.64	18.35

Actual Portfolio Weight Less S&P 500

<i>Minimum Portfolio</i>	-12.36	-3.01	-5.66	-3.39	-10.34	-4.59	-1.67	-5.65	6.64
<i>Portfolio Average</i>	-3.51	-0.97	0.60	-1.55	-5.53	-0.74	-0.33	2.47	9.57
<i>Maximum Portfolio</i>	1.74	1.11	3.46	0.24	-2.25	2.56	1.86	7.02	13.60
<i>Market Average (S&P 500)</i>	35.31	4.16	9.64	6.84	11.86	6.90	1.80	13.94	9.54

Exhibit 4

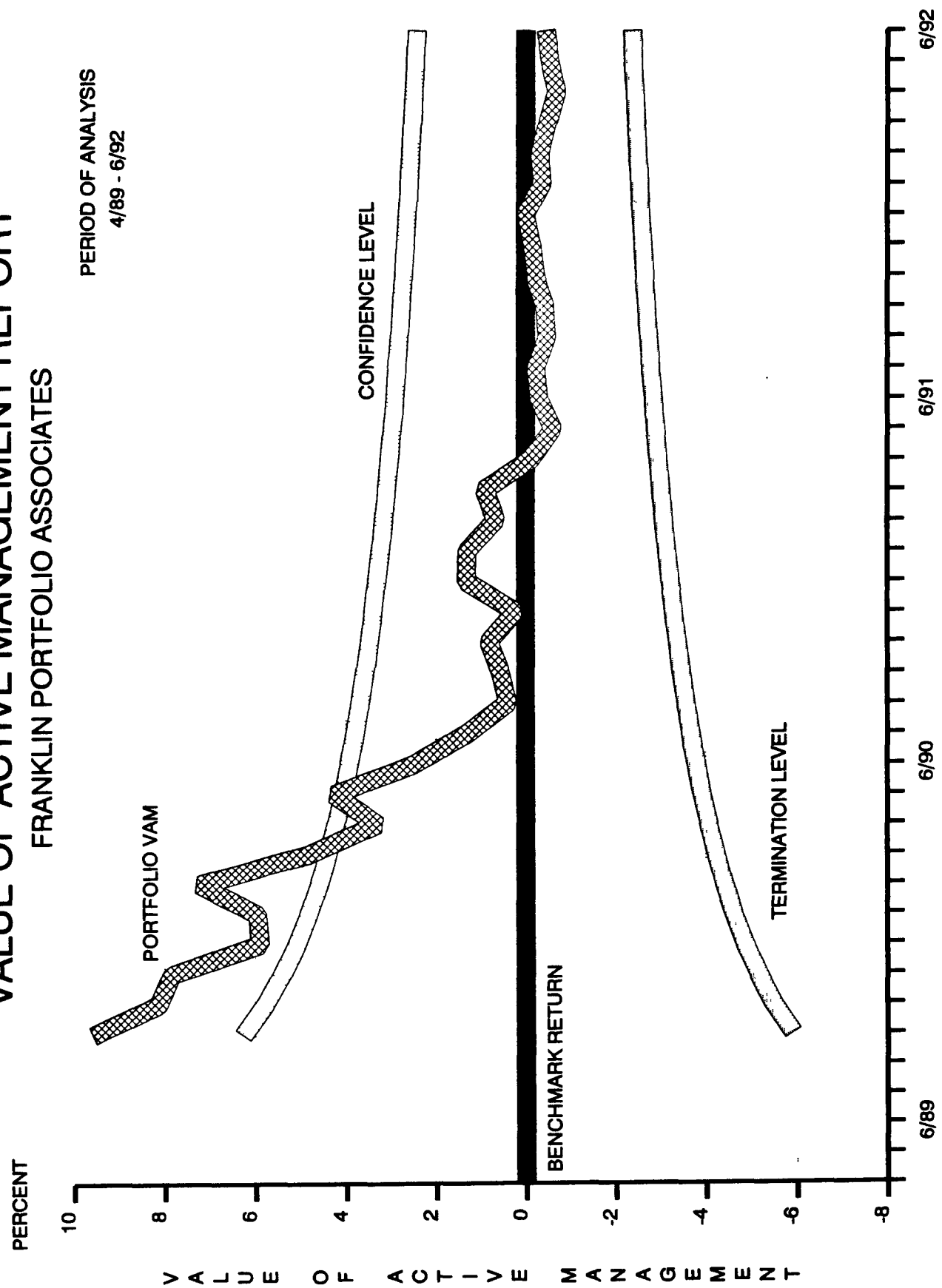
*Franklin Portfolio Associates
Comparison of Actual Portfolio Performance with
Customized Benchmark and Wilshire 5000*

		<i>Actual</i>	<i>Benchmark</i>	<i>Wilshire 5000</i>
1989	Q2	9.68	8.41	8.55
	Q3	11.08	7.35	10.14
	Q4	<u>-2.45</u>	<u>-2.18</u>	<u>0.59</u>
		18.85	13.84	20.26
1990	Q1	-3.17	-3.56	-3.52
	Q2	2.41	4.11	5.48
	Q3	-18.80	-16.98	-15.21
	Q4	<u>11.68</u>	<u>9.84</u>	<u>8.73</u>
		-10.08	-8.44	-6.18
1991	Q1	17.34	17.89	16.46
	Q2	-2.35	0.11	-0.32
	Q3	5.65	6.07	6.35
	Q4	<u>9.03</u>	<u>7.88</u>	<u>8.70</u>
		31.98	35.04	34.20
1992	Q1	-1.71	-0.28	-1.50
	Q2	0.33	0.37	0.12
Cumulative		39.09	40.88	49.32
Annualized		10.69	11.12	13.13

VALUE OF ACTIVE MANAGEMENT REPORT

FRANKLIN PORTFOLIO ASSOCIATES

PERIOD OF ANALYSIS
4/89 - 6/92



V A L U E O F A C T I V E M A N A G E M E N T

Exhibit 6

*Franklin Portfolio Associates
Performance Attribution Analysis
May 1989 through June 1992*

	Sector Differences	Stock Selection	Other*	Total
1989 (May-Dec)	2.00%	2.11%	-0.27%	3.84%
1990	1.04	-0.72	-1.96	-1.64
1991	1.46	-2.03	-2.50	-3.07
1992 (Jan - June)	<u>-0.75</u>	<u>-0.77</u>	<u>-0.05</u>	<u>-1.47</u>
Annualized	1.21	-0.47	-1.55	-0.80

* Other includes items such as fees, cash allocation, trading costs, and inter-month trading effects

Exhibit 7

*Franklin Portfolio Associates
Performance Attribution Analysis
Sector Allocation
May 1989 through June 1992*

	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>Total</u>
Consumer Non-Durables	0.29	0.09	-1.40	-0.57	-1.59
Consumer Durables	-0.06	0.15	-0.24	0.48	0.32
Basic Materials	-0.17	0.08	-0.35	0.00	-0.43
Capital Goods	-0.13	0.29	-0.11	0.00	0.04
Energy	0.14	0.21	0.42	-0.11	0.65
Technology	-0.05	0.35	0.51	0.00	0.81
Transportation	-0.14	0.18	-0.57	-0.13	-0.65
Utilities	-0.60	0.50	0.34	0.38	0.62
Finance	0.18	-0.30	0.18	-0.31	-0.26
Barra Factors	2.41	-0.56	2.85	-0.47	4.23
Total	1.87	0.99	1.63	-0.74	3.75

**DETAILED REVIEW OF
LEHMAN ARK MANAGEMENT**

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LEHMAN REVIEW

INTRODUCTION

Staff performed an in-depth review of Lehman Ark Management Co , Inc. in late 1990. The review was part of the December 1990 quarterly report. The review recommended that the board retain Lehman as a manager until an adequate replacement could be found. This conclusion was based on two major findings:

- o Lehman has used an index-like management approach with the portfolio
- o Lehman has underperformed its benchmark but has not performed poorly enough to be terminated under the Board's Manager Continuation Policy. However, staff concluded that if Lehman continued to manage the fund in an index-like manner, future returns would not compensate for past underperformance

The review also showed that

- o Lehman avoids risk by investing in high quality intermediate maturity bonds. Lehman uses its prediction of interest rate and economic trends to position the portfolio in terms of duration, quality and sectors. Lehman avoids large short-run portfolio shifts and changes portfolio composition gradually over the economic cycle. Lehman also tries to add value through security selection. Lehman has generally followed this investment philosophy.
- o Lehman's customized benchmark was overweighted in governments, cash and intermediate securities. Lehman is underweighted in corporates and mortgages with a duration shorter than the market. (Note. In October, 1991, Lehman and all other active bond managers began using the Salomon BIG as their benchmark.)
- o Lehman underperformed (up to 1990) their benchmark and the market (Lehman 12.2%, benchmark 12.3%, Salomon BIG 13.2% annualized since inception). Lehman underperformed due to poor sector and duration decisions. According to analysis provided by Lehman, these poor decisions were partially offset by added value through trading activities and security selection.

At the June 1992 meeting of the SBI, State Auditor Mark Dayton requested that staff perform another review of Lehman Ark. Since Lehman's organization has changed little since the previous review, the following discussion includes references to the original review along with updates on Lehman's organization and portfolio since 9/30/90.

I. Organization

A. Ownership

Lehman Ark Management Co., Inc. is an employee owned investment management firm. Lehman Ark was formed in 1989 when employees purchased, using an LBO, Lehman Management Co., Inc., then a subsidiary of Shearson Lehman Hutton. Lehman Management provided investment management services since 1929. Lehman Ark manages approximately \$14 billion of fixed income, equity, and balanced accounts.

B. Professional Staff

Lehman fixed income team consists of five portfolio managers and one credit analyst. The team determines portfolio strategy and compliance for all fixed income portfolios.

The SBI portfolio was originally assigned to Paul Hutter who resigned in late 1989. Kevin Hurley is the current SBI portfolio manager. Prior to becoming a managing director at Lehman Ark in 1989, he was the Director of Fixed Income Investments at Mitchell Hutchins Institutional Investors.

C. Fixed Income Assets Under Management

<u>Date</u>	<u># of Accounts</u>	<u>Market Value (Billions)</u>
12/84	39	\$3.283
12/85	40	4.538
12/86	36	4.282
12/87	41	4.815
12/88	40	4.667
12/89	31	3.084
12/90	42	2.678
12/91	42	2.881
6/92	45	2.996

During 1989, Lehman lost nine accounts and their assets under management decreased. In August of 1989, Kevin Hurley replaced Paul Hutter as the manager for the SBI and other accounts. Mr. Hutter did not get the opportunity to own as large of portion of the company as he desired and left on his own accord. The large loss in assets probably occurred because of the change in ownership and the abrupt change in portfolio managers. However, account loss stabilized during 1990.

D. Personnel Turnover

The replacement of Paul Hutter with Kevin Hurley was the only turnover that had a direct affect on management of the SBI portfolio. Due to the personnel change, there was potential for change in management style. For this reason, Lehman was placed on probation in September of 1989. However, Lehman was removed from probation after a six month review showed the change had little affect on portfolio management.

In addition to Mr. Hutter and Mr. Hurley, five people have left the firm and two have joined since Lehman was hired. This turnover had no affect on the SBI portfolio. Lehman Ark believes that the change to employee ownership provides better monetary incentives, increasing performance and reducing staff turnover.

E. Changes Since 1990 Review

Since the last review, there has been no change in ownership or professional staff. There was no turnover at Lehman affecting the SBI portfolio management. The only organizational change occurred in account growth. Lehman has increased the number of fixed income accounts to 45 with assets worth approximately \$3 billion.

II. INVESTMENT PHILOSOPHY

A. Stated Philosophy

Lehman has a conservative investment approach. They avoid risk by investing in high quality intermediate maturity bonds.

Lehman uses its prediction of interest rate and economic trends to position the portfolio in terms of duration, quality and sectors. However, in line with its conservative investment philosophy, Lehman avoids large short-run portfolio shifts. Lehman instead changes portfolio composition gradually over the cycle and does not take extreme portfolio positions.

Lehman also believes value can be added to the portfolio through security selection. Lehman attempts to buy undervalued securities and sell overvalued securities. Lehman derives its estimate of security mispricing from internal valuation models.

B. Investment Process

To implement their stated philosophy, Lehman employs a group strategy to forecast the general direction of interest rates and the economy. Using this forecast, the portfolio manager sets the portfolio duration, maturity structure, quality and sector targets.

Lehman's portfolio managers form the Fixed Income Policy Committee (FIPC). The FIPC tries to identify the current point of the economy in the business and interest rate cycles and projects trends over the next twelve to eighteen months. This includes projecting trends in GDP, inflation, money and credit,

U.S. fiscal policy and the international environment. These projections are based on their own and consensus opinions. The FIPC presents this forecast to the Investment Policy Committee (IPC) which has senior Lehman Management personnel and representatives of the equity and fixed income management groups. The IPC discusses and approves the forecast, with or without modifications.

Using this analysis, Mr. Hurley tries to forecast the position and shape of the yield curve over a twelve to eighteen month period to determine returns for various maturities and selects a maturity/duration target for the portfolio. For instance, if this analysis shows the best returns will occur in maturities of five to ten years, Lehman's portfolio will be overweighted in this maturity sector.

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

Lehman uses a valuation model to search for under and overvalued securities. Lehman uses the model to find securities with price deviations from like securities on the risk-free yield curve (e.g. misvalued issues created by mergers). Lehman conducts credit analysis on the identified securities using their fixed income data base and research supplied by other major brokerage firms. Based on output from the valuation model and the credit research, the portfolio managers make specific security selections within the targeted maturities, qualities and sectors.

C. Implementation of Philosophy

Lehman has generally followed their stated investment philosophy of avoiding risk by investing in high quality intermediate bonds.

o Previous Review (Prior to 9/90)

Exhibit 1 shows they invested primarily in government/agency or AAA rated bonds. Exhibit 2 shows that the majority of their investments were in intermediate bonds with maturities less than ten years.

o Update (Since 9/90)

Lehman has not changed their conservative investment philosophy of investing in high quality intermediate securities. However, Lehman now is investing in securities with longer maturities. This is partly because they are now using the Salomon BIG as their benchmark and it has a longer duration than their previous benchmark. The Salomon BIG is an appropriate benchmark for Lehman since it consists primarily of high quality intermediate securities.

Lehman also follows their low-risk philosophy of making gradual shifts in

sector and duration.

o Previous Review (Prior to 9/90)

Exhibit 3 shows that Lehman's government holdings, for example, ranged from 48.2% to 78.4%. However, the largest quarter to quarter shift occurred in the fourth quarter of 1987 when the holdings increased from 53.4% to 65.5%. Exhibit 4 shows that Lehman has taken little duration risk. The duration has ranged between 3.34 years and 4.09 years with little deviation from benchmark duration. Lehman has deviated from their benchmark duration by half a year or more only twice -- the fourth quarters of 1984 and 1985

o Update (Since 9/90)

Lehman has continued to follow their low-risk philosophy of making gradual shifts in the portfolio. Exhibit 3 shows that Lehman has gradually shifted their portfolio by investing more in mortgages and corporates and less in government securities. Since the last review, Lehman has deviated more from their benchmark duration than in the past. Exhibit 4 shows that Lehman's duration has deviated from the benchmark by half a year three times since the last review. This happened only twice in the previous six years. However, the duration deviations are still conservative when compared to the SBI's other active managers. For example, both Miller and IAI have been up to 2.5 years longer than the market duration during this same period

III. PORTFOLIO BENCHMARK

Since the last review, Lehman's benchmark was changed from a specialized benchmark to the Salomon BIG. The following table compares Lehman's previous benchmark to the Salomon BIG

Sector	Previous Benchmark	Salomon BIG as of 6/92
Governments	62.5%	52.4
Mortgages	15.0	29.3
Corporates	13.5	18.3
Cash	9.0	0.0

Lehman claims Kevin Hurley can manage around any benchmark. Additionally, most of Lehman's other portfolios had market benchmarks like the Salomon BIG. This precipitated the change to the Salomon BIG which is the SBI's overall benchmark for active bond managers. Over time, the benchmark change should increase total returns from Lehman since the BIG has higher mortgage and

corporate exposures and lower cash and government exposures. Since mortgage and corporate sectors will probably outperform the government and cash sectors, Lehman's returns should increase as it increases its mortgage and corporate holdings to reflect the new benchmark. Additionally, the BIG still consists primarily of high quality intermediate securities, consistent with Lehman's investment philosophy. However, the longer duration will increase the portfolio's volatility.

IV. PERFORMANCE ANALYSIS

A. Portfolio Performance Relative to the Benchmark

On a cumulative basis, Lehman's returns have lagged both its benchmark and the Salomon BIG index (see exhibit 5). Exhibit 6 shows the VAM chart comparing Lehman's performance to its benchmark. Since 9/90, Lehman continued to underperform with cumulative returns of 23.24% vs. 23.71% for its benchmark.

B. Portfolio Performance Attribution

Precise fixed income performance attribution is difficult due to pricing problems inherent in bond portfolios and lack of historical data in current attribution software. However, examining past portfolios gives a qualitative indication of where a manager has added value.

Generally, Lehman has attempted to add value by:

- o adjusting portfolio duration in anticipation of interest rate moves.
- o over/under weighting various sectors to make gains from yield spreads.
- o using activities such as correct security selection and swapping.

Duration Analysis

- o Previous Review (Prior to 9/30/90)

Exhibit 7 is a graph showing Lehman's duration and ten year spot rates since they were hired by the SBI. Assuming the spot rates represent general interest rate levels, Exhibit 7 shows that Lehman has generally had a shorter duration than the benchmark while interest rates declined from 1984 through 1990. This contributed to their underperformance. However, from the third quarter of 1986 through the first quarter of 1989, interest rates increased and this short duration helped their performance. According to Lehman, this shorter duration has caused them to underperform the market by 0.51% in total from January 1988 through June 1990.

Although Lehman adjusted their duration, the changes were small. The difference between Lehman's portfolio and benchmark durations more closely resembled an index manager than an active manager. Kevin Hurley had not changed this style and continued to manage the portfolio in this manner.

Exhibit 8 illustrates this by showing the quarterly duration distribution around the benchmark for Lehman, Western, IAI, Morgan Stanley and Miller Anderson along with Lehman's monthly distribution since Kevin Hurley began managing the portfolio.

An example of Lehman's limited duration activity is shown by the frequency with which Lehman is within 0.3 years of their benchmark duration. As of 9/30/90, Lehman had been within 0.3 years 75% of the time and this increased to 85% after Mr. Hurley started. The other active managers had been within 0.3 years from 4% to 25% of the time. At the time, staff stated that the duration management of the portfolio since Mr. Hurley was hired may not be indicative of future style since he only had been managing the portfolio a year.

- o Update (Since 9/30/90)

Staff's observation in the last statement, above, appears to be true since Mr. Hurley has changed the duration by larger amounts since the last review. Exhibit 8 shows that Lehman's duration deviated from the benchmark by larger margins than prior to 9/30/90. However, Lehman's duration activity was still less than the other active managers.

Lehman's more active duration approach has not increased returns to this point. The duration decisions particularly hurt their performance during the fourth quarter of 1991 and the first quarter of 1992. Lehman's portfolio duration was shorter than the market during the fourth quarter as interest rates fell. Lehman shifted their duration to a longer duration during the first quarter as interest rates rose. According to Lehman's own calculations, the duration decisions during these quarter caused them to underperform the benchmark by 53 basis points. However, this longer duration helped them during the second quarter of 1992 as interest rates fell. Again, Exhibit 7 illustrates the duration decisions by graphing how Lehman's duration changed with interest rates.

Sector Analysis, Portfolio Weightings Relative to the Benchmark

- o Previous Review (Prior to 9/90)

Exhibit 9 shows the sector returns from 1984 to 9/90. Mortgages had the highest returns, corporates second, and treasuries third. Lehman's performance was hurt during this time period because they were overweighted relative to their benchmark on average in treasuries and corporates at the expense of mortgages, the highest performing sector (see exhibit 3). According to Lehman, this incorrect sector decision caused them to underperform their benchmark by 0.26% from 1/88 through 6/90.

Lehman did not over/under weight sectors more than the other active managers. Exhibit 10 illustrates this showing the sector distributions around each manager's benchmark. Lehman had been within 5% (portfolio contains, for instance, between 10% and 20% in mortgages when the benchmark portfolio had 15% mortgages in it) of their benchmark in both corporates and mortgages more often than any other active manager.

- o Update (Since 9/90)

Since the review, Lehman's portfolio was on average overweighted in corporates and mortgages. This enhanced returns since governments returned 24.27% since the review while mortgages and corporates returned 25.67% and 28.03% respectively.

Individual Security Selection and Swap Activity

The SBI has no way to determine how well a manager adds value through individual security selection. However, Lehman's own performance attribution shows the residual returns have added 28 basis points to the portfolio after fees since January 1988. This area includes individual security selection, intra-month trading and swap activity and market timing trades.

Performance Attribution Summary

Lehman has underperformed their benchmark due to poor sector and duration decisions. According to Lehman's analysis, these poor decisions have been partially offset through trading activities and security selection.

Prior to 9/90, it appears that Lehman managed the portfolio like an enhanced index manager. They tried to add value through correct security selection and trading activities. Lehman did not make significant deviations from their benchmark in either duration or sector.

Since 9/90, Lehman more actively managed the portfolio. However, this increased activity did not enhance returns.

V. HISTORY OF SBI ACTION

- o In July 1984, Lehman received \$150,000,000.
- o In July 1988, \$147,915,000 was taken from Lehman and given to the newly hired semi-passive managers (Lincoln and Fidelity).
- o In September 1989, Lehman was placed on probation due to a change in ownership and portfolio manager.
- o In December 1990, \$25 million was taken from Lehman as part of portfolio rebalancing.

VI. CONCLUSION

In the previous review, staff concluded that the SBI's relationship with Lehman should be continued until an adequate replacement was found. This conclusion was based on two findings highlighted in the review:

- o Lehman used an index-like management approach with the portfolio. They did not make significant deviations from their benchmark in either sector or duration bets. In effect, the SBI was paying active management fees for a

passive or semi-passive approach.

- o Lehman underperformed its benchmark since the inception of the account. The underperformance was not sufficient to warrant termination under the Board's Manager Continuation Policy. However, staff does not have a high level of confidence in Lehman's ability to add value in the future. Staff concluded that the firm's index-like approach would make it difficult for Lehman to provide future returns that compensated for the past underperformance relative to their benchmark.

In the 1990 review, staff recommended that Lehman be retained until the SBI completed its review of the focus and structure of the active bond manager program. At that time, staff anticipated that the restructuring would occur by the end of FY 1991. However, staff's restructuring proposals were not recommended by the IAC.

Since the last review, Lehman has more actively managed their portfolio but still underperformed due to poor duration decisions. Lehman's underperformance still does not warrant termination under the Board's Manager Continuation Policy but staff believes that the SBI should consider replacing Lehman if higher value-added manager can be identified through a manager search process which is scheduled during FY93. Staff does not recommend terminating Lehman before identifying the replacement.

EXHIBIT 1

QUALITY DISTRIBUTION

		<u>GOVERNMENT/ AGENCY</u>	<u>AAA</u>	<u>AA</u>	<u>A</u>	<u>BAA & BELOW</u>
1992	Q2	71.2	11.6	1.0	16.2	0.0
	Q1	72.0	10.8	1.8	15.4	0.0
1991	Q4	73.5	7.4	4.5	14.6	0.0
	Q3	80.7	3.9	4.1	11.3	0.0
	Q2	74.1	9.2	4.2	12.4	0.0
	Q1	74.3	6.8	6.2	12.7	0.0
1990	Q4	78.4	4.7	6.3	10.7	0.0
	Q3	85.1	0.7	5.3	8.9	0.0
	Q2	88.2	1.0	4.3	6.5	0.0
	Q1	89.8	1.4	3.7	5.1	0.0
1989	Q4	84.2	1.6	3.7	10.5	0.0
	Q3	73.3	4.8	6.4	15.5	0.0
	Q2	62.1	14.0	8.6	15.3	0.0
	Q1	65.6	4.1	13.2	17.1	0.0
1988	Q4	66.8	2.6	13.2	17.2	0.0
	Q3	58.4	10.0	12.9	18.7	0.0
	Q2	65.4	12.6	8.7	13.3	0.0
	Q1	68.7	17.8	5.8	6.6	1.1
1987	Q4	71.5	20.2	0.8	6.6	0.9
	Q3	64.4	25.2	0.0	9.4	1.0
	Q2	76.3	14.1	1.3	7.3	1.0
	Q1	74.8	10.3	5.3	8.1	2.3
1986	Q4	72.0	10.3	9.2	6.3	2.2
	Q3	69.1	10.6	5.7	12.3	2.3
	Q2	77.7	11.2	4.3	4.5	2.3
	Q1	82.0	6.9	4.7	4.0	2.4
1985	Q4	73.0	15.7	4.8	4.1	2.4
	Q3	76.9	9.7	6.4	7.0	0.0
	Q2	80.8	10.0	2.4	6.8	0.0
	Q1	80.5	12.6	2.3	4.6	0.0
1984	Q4	82.5	15.2	0.0	2.3	0.0
	Q3	78.3	17.8	1.3	2.6	0.0

EXHIBIT 2

MATURITY SCHEDULE

		<u>0 - 1</u>	<u>1 - 5</u>	<u>5 - 10</u>	<u>10 - 20</u>	<u>20 +</u>	<u>AVERAGE</u>
1992	Q2	7.70	26.50	36.30	9.90	19.70	9.35
	Q1	2.00	35.50	32.30	9.10	21.20	9.84
1991	Q4	3.20	54.20	26.60	4.90	11.20	6.95
	Q3	1.90	47.60	23.50	17.10	9.90	7.91
	Q2	2.30	57.40	29.90	6.20	4.10	5.68
	Q1	4.80	50.50	34.60	4.60	5.40	5.95
1990	Q4	5.80	48.30	34.80	4.70	6.40	6.40
	Q3	11.50	50.30	32.50	10.60	3.10	5.60
	Q2	4.31	49.10	27.95	11.93	6.70	6.90
	Q1	0.63	55.27	20.64	11.75	11.70	7.30
1989	Q4	2.61	59.44	18.70	8.39	10.87	7.20
	Q3	10.69	54.86	18.18	5.34	10.93	6.80
	Q2	22.11	42.82	15.35	7.29	12.44	7.00
	Q1	28.40	35.21	20.95	2.26	13.17	7.00
1988	Q4	12.80	31.80	45.50	2.30	7.60	
	Q3	18.60	34.60	34.40	5.10	7.30	6.30
	Q2	18.20	35.80	35.20	7.70	3.10	6.20
	Q1	22.60	22.60	38.00	7.10	9.70	7.20
1987	Q4	10.80	38.70	45.50	5.00	0.00	5.20
	Q3	16.60	36.00	31.70	12.10	2.60	5.90
	Q2	8.60	52.60	35.20	0.00	3.60	4.90
	Q1	13.20	43.30	39.50	4.00	0.00	5.00
1986	Q4	12.00	45.50	35.70	6.80	0.00	5.20
	Q3	8.80	48.10	33.70	9.50	0.00	5.50
	Q2	13.70	47.70	28.90	9.60	0.00	5.40
	Q1	6.90	38.60	38.70	15.80	0.00	5.80
1985	Q4	15.60	35.20	44.00	5.30	0.00	4.70
	Q3	7.10	39.90	46.50	6.50	0.00	5.40
	Q2	7.90	39.60	44.40	8.10	0.00	5.50
	Q1	12.60	36.50	46.90	4.00	0.00	5.40
1984	Q4	15.10	38.50	32.80	13.60	0.00	5.20
	Q3	14.20	32.50	29.00	24.20	0.00	6.50

EXHIBIT 3

SECTOR DISTRIBUTION

		<u>GOVT</u>	<u>MORT</u>	<u>UTIL</u>	<u>IND</u>	<u>FIN</u>	<u>ABS*</u>	<u>CASH EQ</u>
1992	Q2	37.1	29.5	1.0	5.2	10.0	12.6	4.6
	Q1	38.4	31.6	1.5	6.8	8.9	10.8	2.0
1991	Q4	43.5	28.5	3.8	7.8	8.0	6.9	1.5
	Q3	58.3	20.6	3.4	5.9	6.1	3.9	1.9
	Q2	56.7	15.1	4.0	7.4	6.1	8.4	2.3
	Q1	53.6	15.9	4.0	9.8	11.8		4.8
1990	Q4	52.4	23.9	3.1	5.0	13.5		2.1
	Q3	69.6	19.0	2.6	4.7	7.6		4.8
	Q2	69.5	18.7	1.6	4.9	5.1		0.3
	Q1	71.3	18.6	1.7	2.2	5.6		0.6
1989	Q4	64.9	19.4	1.7	2.5	10.7		0.8
	Q3	68.3	4.9	0.9	3.4	19.7		2.8
	Q2	57.0	5.0	0.9	2.6	22.6		11.9
	Q1	57.5	0.0	0.9	2.7	24.6		14.2
1988	Q4	59.9	6.9	5.1	2.8	24.9		0.5
	Q3	48.2	10.2	4.3	2.8	26.5		8.0
	Q2	55.4	10.0	3.7	4.1	18.4		8.4
	Q1	57.4	11.3	2.1	4.2	12.5		12.5
1987	Q4	65.5	6.8	1.2	7.0	8.7		10.8
	Q3	53.4	11.1	1.3	8.9	7.7		17.6
	Q2	61.7	14.6	1.3	9.0	5.8		7.6
	Q1	61.1	12.0	1.3	11.4	7.0		7.2
1986	Q4	56.9	15.1	3.0	12.4	6.4		6.2
	Q3	53.0	16.1	7.8	12.1	8.4		2.6
	Q2	60.1	17.6	1.8	8.9	8.7		2.9
	Q1	68.4	15.0	0.0	6.6	8.1		2.9
1985	Q4	60.8	12.1	2.0	5.3	8.5		11.3
	Q3	65.8	11.1	2.2	6.9	9.0		5.0
	Q2	72.0	8.8	2.2	2.4	6.7		7.9
	Q1	77.6	2.9	2.3	0.0	4.6		12.6
1984	Q4	77.9	4.7	0.0	0.0	2.3		15.1
	Q3	78.4	0.0	0.0	3.8	0.0		17.8

* Asset Backed Securities

EXHIBIT 4

**LEHMAN
DURATION VS. SPOT RATE**

		<u>10 YEAR SPOT RATE</u>	<u>LEHMAN PORTFOLIO DURATION</u>	<u>BENCHMARK DURATION</u>
1992	Q2	7.29%	5.48 Years	4.96 Years
	Q1	7.63	5.51	4.94
1991	Q4	6.85	4.31	4.74
	Q3	7.51	5.01	5.03 *
	Q2	8.23	3.66	4.02
	Q1	8.00	3.72	3.92
1990	Q4	8.04	3.78	3.98
	Q3	8.74	3.52	4.02
	Q2	8.27	4.07	4.02
	Q1	8.46	4.09	4.04
1989	Q4	7.81	4.08	3.99
	Q3	8.12	3.82	3.94
	Q2	7.91	3.81	3.99
	Q1	9.00	3.68	3.99
1988	Q4	8.92	4.11	4.01
	Q3	8.75	3.81	3.95
	Q2	8.73	4.01	3.97
	Q1	8.55	4.03	4.06
1987	Q4	8.82	3.90	4.03
	Q3	9.51	3.81	4.00
	Q2	8.31	3.71	4.12
	Q1	7.17	3.88	4.24
1986	Q4	7.14	3.90	4.14
	Q3	6.94	4.00	4.00
	Q2	7.25	3.77	3.97
	Q1	7.31	4.01	4.22
1985	Q4	8.98	3.34	4.03
	Q3	10.29	3.65	3.86
	Q2	10.28	3.66	3.96
	Q1	11.50	3.62	3.94
1984	Q4	11.48	3.38	3.93
	Q3	12.11	3.78	3.82

* Switched to Salomon BIG as benchmark

EXHIBIT 5

PERFORMANCE COMPARISONS
Comparison of Portfolio and Benchmark Performance
With Salomon BIG Index

		<u>PORTFOLIO</u>	<u>BENCHMARK</u>	<u>SALOMON BIG</u>
1984	3Q	8.5%	7.5%	8.6%
	4Q	<u>6.8</u>	<u>7.1</u>	<u>7.5</u>
		15.9%	15.1%	16.8%
1985	1Q	2.0%	2.3%	2.2%
	2Q	7.6	7.6	8.9
	3Q	2.1	2.2	2.0
	4Q	<u>6.5</u>	<u>6.8</u>	<u>7.7</u>
	19.3%	20.1%	22.3%	
1986	1Q	6.5%	6.9%	7.9%
	2Q	1.1	1.4	1.1
	3Q	2.9	2.3	2.5
	4Q	<u>2.8</u>	<u>2.9</u>	<u>3.3</u>
	13.9%	14.1%	15.5%	
1987	1Q	1.1%	1.5%	1.3%
	2Q	-1.6	-1.3	-1.6
	3Q	-2.1	-2.1	-2.8
	4Q	<u>5.3</u>	<u>5.2</u>	<u>5.8</u>
	2.6%	3.2%	2.6%	
1988	1Q	3.2%	3.4%	3.8%
	2Q	0.7	1.1	1.2
	3Q	3.3	1.8	2.0
	4Q	<u>0.8</u>	<u>0.9</u>	<u>0.8</u>
	8.1%	7.4%	8.0%	
1989	1Q	1.3%	1.2%	1.2%
	2Q	7.0	7.2	7.9
	3Q	1.1	1.2	1.0
	4Q	<u>3.2</u>	<u>3.6</u>	<u>3.7</u>
	13.0%	13.6%	14.4%	
1990	1Q	-0.5%	-0.5%	-0.8%
	2Q	3.2	3.4	3.6
	3Q	1.1	1.2	1.0
	4Q	<u>4.6</u>	<u>4.6</u>	<u>5.1</u>
	8.7%	9.0%	9.1%	
1991	1Q	2.5%	2.5%	2.6%
	2Q	1.7	1.6	1.8
	3Q	5.4	5.1	5.7
	4Q	<u>4.7</u>	<u>5.0</u>	<u>5.0</u>
	14.9%	15.0%	16.0%	
1992	1Q	-1.7%	-1.2%	-1.2%
	2Q	<u>4.3</u>	<u>4.1</u>	<u>4.1</u>
	153.1%	155.9%	172.0%	

VALUE OF ACTIVE MANAGEMENT REPORT

LEHMAN ARK

PERIOD OF ANALYSIS
6/84 - 6/92

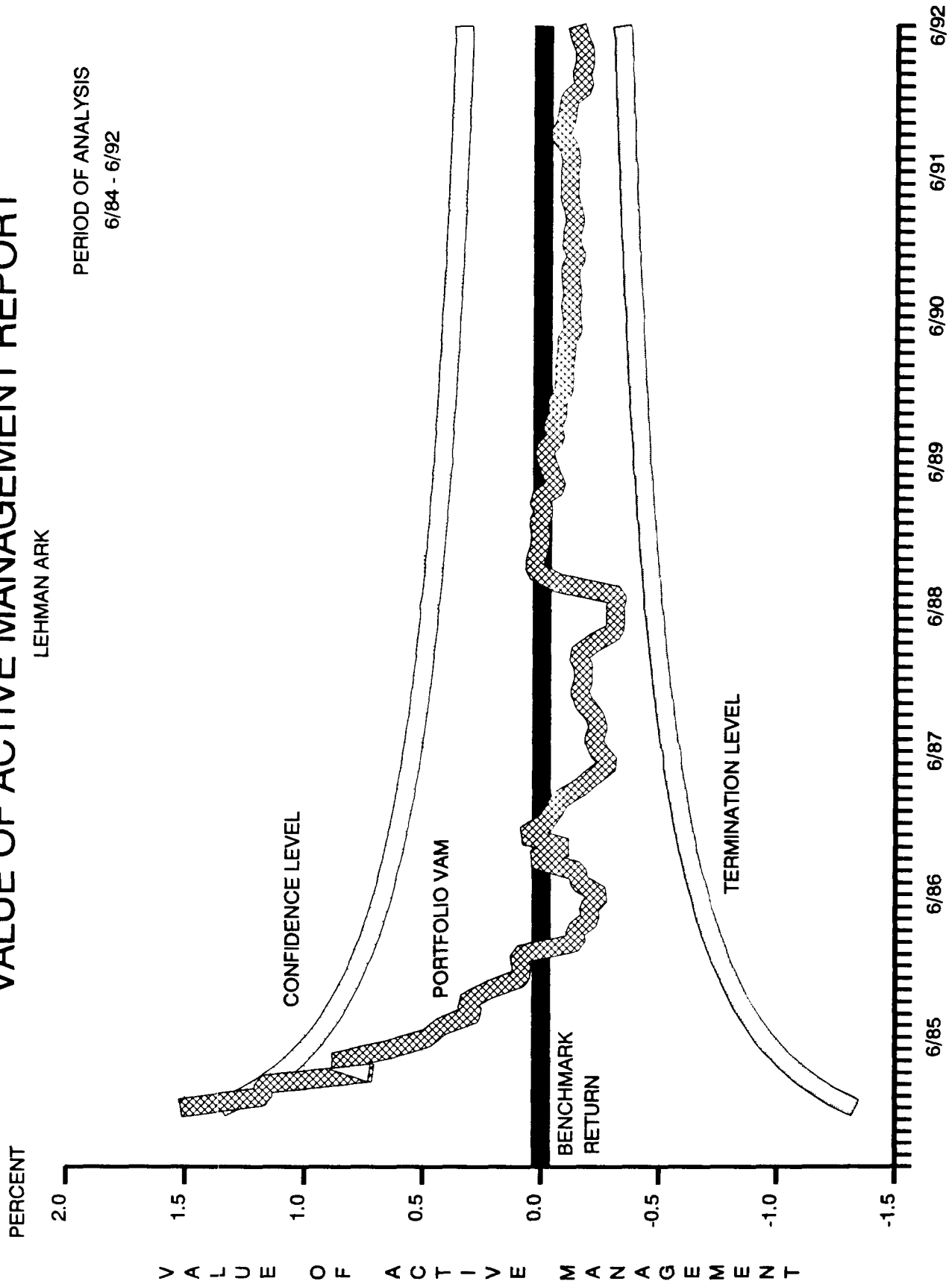


Exhibit 7

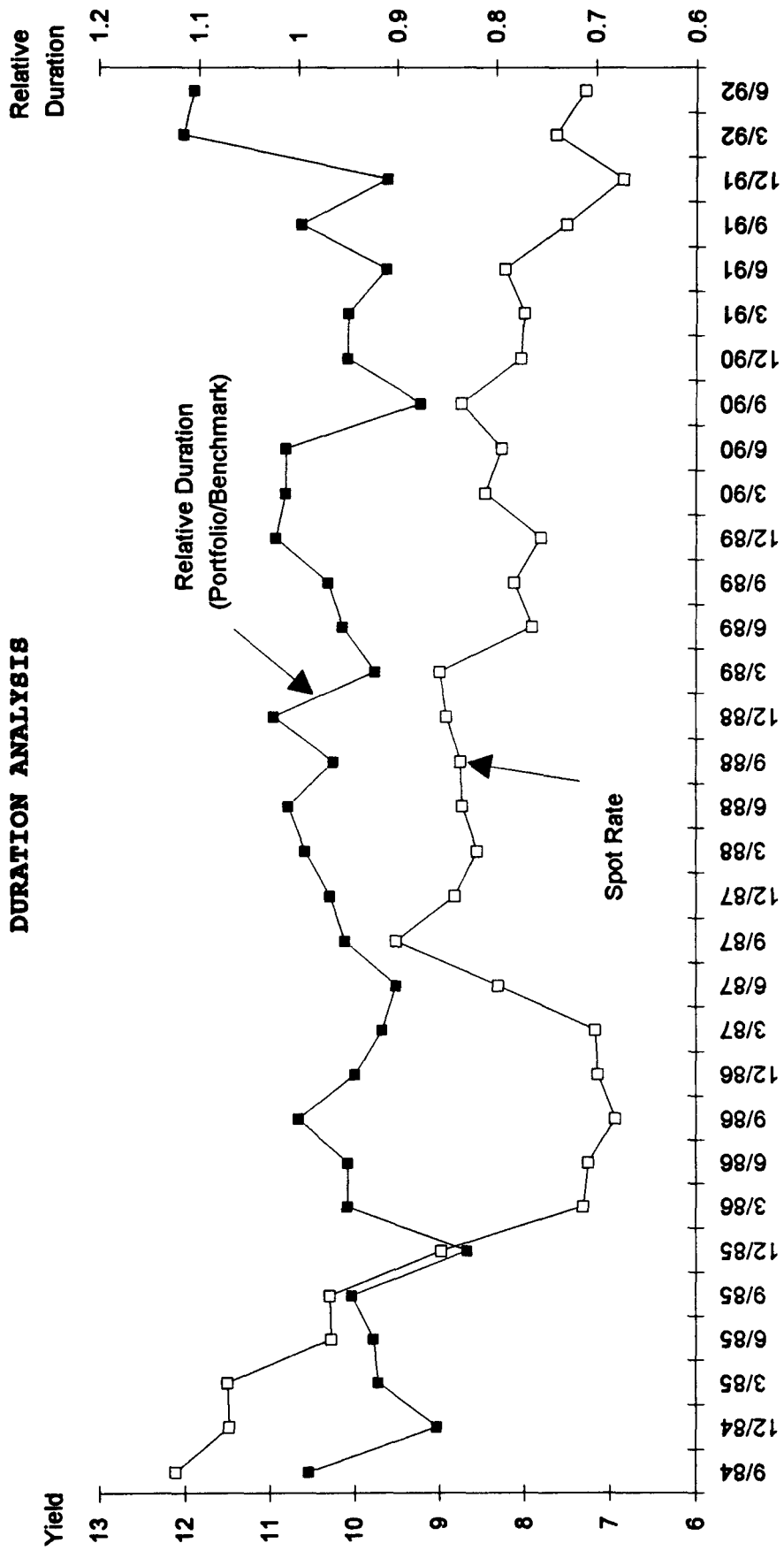


EXHIBIT 8

**CUMULATIVE DURATION DISTRIBUTION
RELATIVE TO BENCHMARK**

Prior to 9/30/90

<u>YEARS</u>	<u>LEHMAN</u>	<u>LEHMAN (1)</u>	<u>WESTERN</u>	<u>IAI</u>	<u>MILLER</u>
+ 0 1	37.5%	54%	0.0%	8.3%	8.3%
+ 0 2	62.5	70	0.0	8.3	12.5
+ 0 3	75.0	85	4.2	8.3	16.7
+ 0 4	87.5	85	4.2	8.3	20.8
+ 0 5	91.0	100	25.0	8.3	25.0
+ 0 6	95.0	100	29.2	8.3	29.2
+ 0 7	100.0	100	54.2	8.3	41.7
+ 1 0	100.0	100	71.0	16.7	50.0
+ 1 5	100.0	100	96.0	58.0	83.3
+ 2 0	100.0	100	100.0	92.0	100.0
+ 3 0	100.0	100	100.0	95.8	100.0

(1) Since Kevin Hurley began managing the SBI Portfolio

SINCE 9/30/90

<u>YEARS</u>	<u>LEHMAN</u>	<u>WESTERN</u>	<u>IAI</u>	<u>MILLER</u>
+ 0 1	12.5%	0%	0%	0%
+ 0 2	37.5	0	0	0
+ 0 3	37.5	0	0	0
+ 0 4	50.0	0	0	0
+ 0 5	75.0	0	0	0
+ 0 6	100.0	25	0	0
+ 0 7	100.0	25	0	0
+ 1 0	100.0	100	0	0
+ 1 5	100.0	100	0	0
+ 2 0	100.0	100	50	0
+ 3 0	100.0	100	100	100

EXHIBIT 9

YEARLY SECTOR RETURNS

	<u>ANNUALIZED THROUGH</u>	<u>9/30/90</u>	<u>1989</u>	<u>1988</u>	<u>1987</u>	<u>1986</u>	<u>1985</u>	<u>1984</u>
	<u>RETURN</u>							<u>2ND HALF</u>
TREASURY/AGENCY	12.39% +	3.13% +	14.22% -	7.90% -	2.13% -	15.48% -	20.46% +	14.97% +
MORTGAGES	14.71 -	5.61 +	15.16 -	8.81 -	4.06 -	13.44 +	25.68 -	20.08 -
CORPORATES	14.17 +	3.17 -	13.97 +	9.45 +	2.06 +	17.03 +	24.93 -	19.22 -

Lehman's portfolio was, on average, overweighted in this sector during this time period.

Lehman's portfolio was, on average, underweighted in this sector during this time period.

EXHIBIT 10

**CUMULATIVE SECTOR DISTRIBUTION
RELATIVE TO BENCHMARK**

Prior to 9/30/90

		<u>LEHMAN</u>	<u>LEHMAN*</u>	<u>WESTERN</u>	<u>IAI</u>
<u>GOVERNMENTS</u>	+ 5	33.3%	45%	54.0%	46%
	+ 10	83.3	100	73.2	79
	+ 15	87.5	100	77.4	100
	+ 20	100.0	100	89.9	100
<u>MORTGAGES</u>	+ 5	62.5%	91%	16.7%	25%
	+ 10	79.2	100	75.0	63
	+ 15	100.0	100	100.0	39
	+ 20	100.0	100	100.0	52
<u>CORPORATES</u>	+ 5	42.0%	91%	29.2%	33.0%
	+ 10	67.0	100	71.0	71.0
	+ 15	92.0	100	87.5	71.0
	+ 20	100.0	100	100.0	83.0

* Since Kevin Hurley began Managing the SBI portfolio

SINCE 9/30/90

		<u>LEHMAN</u>	<u>WESTERN</u>	<u>IAI</u>	<u>MILLER</u>
<u>GOVERNMENTS</u>	+ 5	0.0%	14.3%	28.6%	0.0%
	+ 10	42.8	57.1	57.1	42.8
	+ 15	85.7	71.4	57.1	57.1
	+ 20	100.0	100.0	85.7	100.0
<u>MORTGAGES</u>	+ 5	71.4%	0.0%	28.6%	0.0%
	+ 10	85.7	14.3	85.7	14.3
	+ 15	100.0	100.0	100.0	71.4
	+ 20	100.0	100.0	100.0	100.0
<u>CORPORATES</u>	+ 5	14.3%	42.9%	14.3%	100.0%
	+ 10	57.1	57.1	57.1	100.0
	+ 15	100.0	57.1	85.7	100.0
	+ 20	100.0	57.1	100.0	100.0

MANAGER FACT SHEET

Manager: **Aronson + Fogler**
 Large Cap Value

Investment Philosophy

Aronson + Fogler focuses on asset-rich companies, selling at relatively low market valuations, with above-average growth prospects. The firm believes excess returns above the market can be achieved with a thoughtful combination of modern investment techniques, keen attention to transaction costs and state-of-the-art academic research.

Research

The firm has a separate office in Gainesville, Florida dedicated exclusively to research and development and is headed by Russ Fogler.

Portfolio Management

The portfolio management process starts with a universe of S&P 500 stocks. The firm screens for liquidity, financial strength and positive earnings to obtain a universe of 350 stocks. Next they employ a multifactor valuation model that emphasizes equally three key variables: assets (P/B), price-to-earnings ratio, and what they refer to as the management factor (a composite measure that consists of ROA, the percent change in the debt level and the growth in book value per share). The securities in their universe are ranked according to these variables. Stock selection is done by choosing the highest ranked securities in each of nine economic sectors. The firm then completes the portfolio by reranking the top 2 deciles of their remaining universe according to momentum characteristics. From this, the firm selects the best of the momentum stocks in order to add a high growth exposure to the portfolio. Generally, this comprises 10% of the portfolio.

Position sizes range from 0.5% to 4%. The firm uses price momentum, valuation ranks and liquidity to determine position sizes. Sector weights are held to within 5% of the S&P 500. In general, sector weights are close to being "neutral" to the broad market. The exception occurs when the smaller sectors provide inadequate opportunities, at which time the firm may be totally out of these sectors. Portfolios range from 40-60 stocks.

Ownership

The firm is 100% owned by its employees.

Total equity assets managed. \$500 million

Total number of accounts 15

Total equity assets managed for this discipline. \$15 million

Total number of accounts for this discipline. 1

Three largest tax-exempt accounts:	Bell Atlantic	\$83 million
	MacArthur Foundation	80 million
	The Common Fund	59 million

QUANTITATIVE EVALUATION

Manager: Aronson + Fogler

Performance Series Description

Period Range: January 1980 - June 1992
Observations: 150
Benchmark: Russell Price Driven
Market: Wilshire 5000 Index

	<u>Annual ROR</u>	<u>Annual Std. Dev</u>	<u>Info Ratio (IR)</u>	<u>IR T-Stat</u>
Actual minus market (EXM)	4.04610	4.42427	.91452	3.16963
Bnmk minus market (MFT)	.69209	4.06491	.17026	.59289
Actual minus bnmk (VAM)	3.33095	4.65690	.71527	2.48766

Residual Correlation Matrix

	EXM	MFT	VAM	
EXM	1.00	---	---	EXM: Market
MFT	.40065	1.00	---	MFT: Style/Benchmark
VAM	.60032	-.49224	1.00	VAM: Value added to benchmark

Staff Comments

The manager has outperformed the submitted benchmark at a statistically significant level (99%). However, except for the last two months, the returns for this investment style were derived from backtested studies. In addition, the benchmark provides a marginally better measure by which to evaluate the manager than a market index..

Investment Manager:

ARONSON + FOGLER (SIMULATED)

Benchmark:

FRANK RUSSELL PRICE DRIVEN

	--PORTFOLIO--		--BENCHMARK--		--WILSHIRE 5000--		--VAM (PT/BK)--		--STYLE (BK/W5)--		--TOTAL (PT/W5)--		
	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	
80	Q1	-4.41%	-6.02%		-5.63%		1.71%		-0.41%		1.29%		
	Q2	12.79%	15.47%		15.02%		-2.32%		0.39%		-1.94%		
	Q3	14.45%			7.80%		12.83%		6.17%		1.44%		
	Q4	10.13%	35.90%	6.35%	24.41%	9.15%	33.67%	3.55%	9.23%	-2.56%	-6.92%	0.90%	1.67%
81	Q1	4.89%		4.99%		1.82%		-0.10%		3.12%		3.02%	
	Q2	0.98%		1.11%		-0.19%		-0.13%		1.30%		1.17%	
	Q3	-10.25%		-10.12%		-12.13%		-0.14%		2.29%		2.15%	
	Q4	6.52%	1.26%	6.12%	1.26%	7.79%	-3.75%	0.38%	0.01%	-1.55%	5.20%	-1.18%	5.21%
82	Q1	-3.86%		-5.88%		-9.19%		2.15%		3.64%		5.87%	
	Q2	-1.22%		-1.22%		-1.13%		0.00%		-0.09%		-0.10%	
	Q3	8.31%		11.16%		11.33%		-2.57%		-0.15%		-2.71%	
	Q4	15.27%	18.57%	16.15%	20.04%	18.76%	18.71%	-0.76%	-1.23%	-2.20%	1.12%	-2.94%	-0.12%
83	Q1	7.79%		10.72%		11.43%		-2.64%		-0.63%		-3.26%	
	Q2	10.81%		11.18%		13.03%		-0.33%		-1.64%		-1.96%	
	Q3	4.93%		2.58%		-0.94%		2.30%		3.55%		5.93%	
	Q4	1.55%	27.28%	1.60%	28.28%	-1.04%	23.47%	-0.05%	-0.78%	2.67%	3.90%	2.62%	3.09%
84	Q1	1.31%		-0.38%		-4.20%		1.70%		3.98%		5.75%	
	Q2	1.53%		-3.66%		-2.77%		5.38%		-0.91%		4.42%	
	Q3	10.83%		11.78%		9.19%		-0.85%		2.37%		1.50%	
	Q4	1.07%	15.22%	2.62%	10.10%	1.32%	3.05%	-1.51%	4.65%	1.29%	6.84%	-0.24%	11.81%
85	Q1	14.20%		9.39%		10.35%		4.40%		-0.87%		3.49%	
	Q2	9.74%		9.21%		7.47%		0.48%		1.62%		2.11%	
	Q3	-3.99%		-4.21%		-4.27%		0.23%		0.06%		0.29%	
	Q4	16.79%	40.53%	14.92%	31.51%	16.77%	32.56%	1.63%	6.85%	-1.58%	-0.79%	0.02%	6.01%
86	Q1	16.10%		13.92%		14.38%		1.92%		-0.40%		1.51%	
	Q2	4.49%		3.78%		5.80%		0.69%		-1.91%		-1.24%	
	Q3	-3.75%		-2.21%		-7.73%		-1.57%		5.98%		4.31%	
	Q4	6.70%	24.58%	3.79%	19.98%	3.97%	16.09%	2.80%	3.84%	-0.18%	3.35%	2.62%	7.31%
87	Q1	22.36%		16.41%		21.17%		5.11%		-3.93%		0.98%	
	Q2	4.32%		3.84%		3.28%		0.46%		0.55%		1.01%	
	Q3	5.15%		5.84%		6.22%		-0.65%		-0.35%		-1.00%	
	Q4	-24.76%	0.98%	-21.41%	0.50%	-23.05%	2.27%	-4.21%	0.48%	2.09%	-1.74%	-2.22%	-1.26%
88	Q1	12.25%		10.37%		8.01%		1.71%		2.18%		3.93%	
	Q2	5.55%		7.79%		6.55%		-2.08%		1.16%		-0.94%	
	Q3	1.65%		1.25%		0.16%		0.39%		1.09%		1.49%	
	Q4	3.61%	24.78%	2.25%	23.16%	2.31%	17.94%	1.33%	1.32%	-0.07%	4.42%	1.26%	5.80%
89	Q1	10.65%		7.48%		7.42%		2.95%		0.06%		3.01%	
	Q2	6.29%		7.83%		8.55%		-1.43%		-0.66%		-2.08%	
	Q3	12.80%		8.34%		10.14%		4.11%		-1.63%		2.42%	
	Q4	1.74%	34.96%	-0.30%	25.19%	0.59%	29.17%	2.04%	7.81%	-0.89%	-3.08%	1.14%	4.48%
90	Q1	-2.56%		-2.88%		-3.52%		0.32%		0.66%		0.99%	
	Q2	6.65%		1.72%		5.48%		4.85%		-3.56%		1.11%	
	Q3	-13.29%		-13.96%		-15.21%		0.78%		1.48%		2.27%	
	Q4	10.89%	-0.08%	8.14%	-8.08%	8.73%	-6.18%	2.54%	8.70%	-0.54%	-2.02%	1.99%	6.50%
91	Q1	15.95%		13.10%		16.46%		2.52%		-2.89%		-0.43%	
	Q2	1.38%		0.10%		-0.32%		1.28%		0.42%		1.70%	
	Q3	4.15%		5.31%		6.35%		-1.10%		-0.98%		-2.07%	
	Q4	6.32%	30.17%	4.53%	24.62%	8.70%	34.20%	1.72%	4.46%	-3.84%	-7.14%	-2.19%	-3.00%
92	Q1	1.65%		1.13%		-1.33%		0.52%		2.49%		3.02%	
	Q2	0.78%		4.18%		-0.12%		-3.27%		4.31%		0.90%	
Latest:													
	1 yr		13.44%		15.97%		13.93%		-2.18%		1.80%		-0.43%
	3 yrs		15.19%		9.23%		11.18%		5.46%		-1.75%		3.61%
	5 yrs		12.16%		9.13%		9.09%		2.79%		0.03%		2.82%
	Cum 801Q-922Q		19.73%		15.87%		15.07%		3.33%		0.69%		4.05%
	Std Dev		16.98%		15.27%		16.88%		4.66%		4.06%		4.42%

MANAGER FACT SHEET

Manager: Brandywine Asset Management

Investment Philosophy

By investing in extremely low P/E stocks, Brandywine attempts to add significant value to market returns without increasing volatility. By applying quantitative and qualitative research to this universe, Brandywine can provide returns which exceed those of the low P/E Universe while controlling volatility. They remain fully invested, with no more than 10% in cash at any time.

Research

Brandywine's portfolio managers are responsible for research, which is generated from external sources. The managers use quantitative research obtained from external databases. The managers also use qualitative research from sources on the Street.

Portfolio Management

Brandywine's universe is the lowest 25% of the P/E spectrum of companies with capitalization of \$250 million and above (approximately 300 stocks). In their stock selection process, Brandywine focuses quantitatively on stocks that have statistically and expectationally lower than normal characteristics. They screen for low absolute/relative price for past 10 years, low price/book, low price/cash flow, low price/sales and depressed price. Next they look at the company and industry fundamentals by applying the following qualitative screens: company financials, management and competitive position, the company's relative position in its earnings cycle and the industry's cyclical and secular trends. They then identify approximately 60 stocks which have statistically lower than normal characteristics and where expectations are low but where Brandywine believes the fundamentals have stabilized.

There are three situations when Brandywine makes a decision regarding the sale of a security: 1) when the P/E of the company rises above the 40th percentile it is sold automatically; 2) when a security reaches its upside range (set when the stock is initially purchased), other buy candidates are examined to determine where the most value lies. Generally, the appreciated stock is sold, and 3) when a stock reaches its downside range, it is determined whether to buy more of the security, hold it, or sell it and replace it with a stock with better upside potential.

Ownership

Key employees own 91% of Brandywine Asset Management, with the 9% being owned by outside investors.

Total equity assets managed: \$1,356 million

Total number of accounts: 43

Total equity assets managed for this discipline: \$1,356 million

Total number of accounts for this discipline: 43

Three largest tax-exempt accounts:	State of Illinois	\$207.9 million
	Westinghouse	\$191.0 million
	Common Fund	\$92.50 million

QUANTITATIVE EVALUATION

Manager: Brandywine Asset Management

Performance Series Description

Period Range: Q1 1980 - Q2 1992
 Observations: 50
 Benchmark: S&P 500 with 5% cash
 Market: Wilshire 5000 Index

	<u>Annual ROR</u>	<u>Annual Std. Dev</u>	<u>Info Ratio (IR)</u>	<u>IR T-Stat</u>
Actual minus market (EXM)	2.82063	5.82013	.48463	1.68972
Bnmk minus market (MFT)	.42618	2.69237	.15829	0.55846
Actual minus bnmk (VAM)	2.38428	6.35012	.37547	1.31191

Residual Correlation Matrix

	EXM	MFT	VAM	
EXM	1.00	---	---	EXM: Market
MFT	.02549	1.00	---	MFT: Style/Benchmark
VAM	.90573	-.40063	1.00	VAM: Value added to benchmark

Staff Comments

The manager has added value to the submitted benchmark at a 90% confidence level. However, the benchmark submitted by the manager is a poor benchmark by which to judge the manager. Recently Brandywine has hired an outside consultant to build a benchmark that will reflect their particular investment style.

Investment Manager:

Benchmark:

BRANDYWINE ASSET MANAGEMENT

S&P 500 + 5% CASH

	PORTFOLIO		BENCHMARK		WILSHIRE 5000		VAM (PT/BK)		STYLE (BK/W5)		TOTAL (PT/W5)		
	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	
80	Q1	-6.25%	-3.67%		-5.63%		-2.67%		2.07%		-0.66%		
	Q2	14.46%	12.83%		15.02%		1.44%		-1.90%		-0.49%		
	Q3	15.18%	10.77%		12.83%		3.98%		-1.83%		2.08%		
	Q4	11.92%	38.33%	9.18%	31.44%	9.15%	33.67%	2.51%	5.24%	0.03%	-1.67%	2.54%	3.48%
81	Q1	6.77%	1.51%		1.82%		5.18%		-0.30%		4.87%		
	Q2	1.64%	-2.00%		-0.19%		3.71%		-1.82%		1.83%		
	Q3	-13.28%	-9.55%		-12.13%		-4.12%		2.94%		-1.30%		
	Q4	7.34%	1.02%	6.82%	-3.88%	7.79%	-3.75%	0.49%	50.90%	-0.90%	-0.13%	-0.42%	4.95%
82	Q1	-5.39%	-6.71%		-9.19%		1.42%		2.73%		4.18%		
	Q2	-1.64%	-0.37%		-1.13%		-1.27%		0.76%		-0.52%		
	Q3	12.72%	11.02%		11.33%		1.53%		-0.28%		1.25%		
	Q4	18.10%	23.88%	17.50%	21.23%	18.76%	18.71%	0.51%	21.80%	-1.06%	2.13%	-0.55%	4.36%
83	Q1	12.13%	9.63%		11.43%		2.28%		-1.61%		0.63%		
	Q2	13.27%	10.57%		13.03%		2.44%		-2.18%		0.21%		
	Q3	4.71%	0.03%		-0.94%		4.67%		0.98%		5.70%		
	Q4	1.69%	35.24%	0.35%	21.69%	-1.04%	23.47%	1.33%	11.13%	1.41%	-1.43%	2.76%	9.54%
84	Q1	-1.81%	-2.15%		-4.20%		0.35%		2.14%		2.50%		
	Q2	-3.36%	-2.28%		-2.77%		-1.11%		0.50%		-0.61%		
	Q3	11.15%	9.36%		9.19%		1.64%		0.15%		1.79%		
	Q4	4.15%	9.85%	1.80%	6.45%	1.32%	3.05%	2.31%	3.19%	0.48%	3.31%	2.80%	6.60%
85	Q1	9.91%	8.85%		10.35%		0.97%		-1.36%		-0.40%		
	Q2	8.34%	7.02%		7.47%		1.23%		-0.42%		0.81%		
	Q3	-5.91%	-3.81%		-4.27%		-2.18%		0.48%		-1.71%		
	Q4	14.84%	28.67%	16.44%	30.48%	16.77%	32.56%	-1.38%	-1.39%	-0.28%	-1.57%	-1.65%	-2.94%
86	Q1	15.04%	13.41%		14.38%		1.43%		-0.84%		0.58%		
	Q2	3.56%	5.68%		5.80%		-2.01%		-0.11%		-2.12%		
	Q3	-0.70%	-6.52%		-7.73%		6.23%		1.31%		7.62%		
	Q4	6.00%	25.40%	5.17%	17.83%	3.97%	16.09%	0.79%	6.42%	1.15%	1.50%	1.95%	8.01%
87	Q1	17.11%	20.29%		21.17%		-2.64%		-0.73%		-3.35%		
	Q2	6.36%	4.94%		3.28%		1.35%		1.61%		2.98%		
	Q3	3.71%	6.37%		6.22%		-2.50%		0.14%		-2.36%		
	Q4	-21.62%	1.25%	-21.42%	5.51%	-23.05%	2.27%	-0.26%	-4.04%	2.13%	3.16%	1.86%	-1.00%
88	Q1	13.37%	5.61%		8.01%		7.35%		-2.22%		4.96%		
	Q2	6.20%	6.27%		6.55%		-0.06%		-0.26%		-0.33%		
	Q3	0.11%	0.47%		0.16%		-0.36%		0.30%		-0.05%		
	Q4	2.01%	22.95%	3.05%	16.19%	2.31%	17.94%	-1.01%	5.82%	0.72%	-1.48%	-0.30%	4.25%
89	Q1	9.60%	6.76%		7.42%		2.66%		-0.61%		2.03%		
	Q2	6.36%	8.45%		8.55%		-1.92%		-0.09%		-2.01%		
	Q3	8.28%	10.17%		10.14%		-1.72%		0.03%		-1.69%		
	Q4	-4.03%	21.14%	1.99%	30.09%	0.59%	29.17%	-5.90%	-6.89%	1.39%	0.71%	-4.59%	-6.22%
90	Q1	-3.12%	-2.75%		-3.52%		-0.38%		0.79%		0.41%		
	Q2	2.19%	6.08%		5.48%		-3.67%		0.57%		-3.12%		
	Q3	-17.29%	-13.02%		-15.21%		-4.91%		2.59%		-2.45%		
	Q4	12.72%	-7.70%	8.60%	-2.56%	8.73%	-6.18%	3.80%	-5.28%	-0.12%	3.86%	3.67%	-1.62%
91	Q1	19.16%	13.88%		16.46%		4.64%		-2.22%		2.32%		
	Q2	2.98%	-0.13%		-0.32%		3.11%		0.19%		3.31%		
	Q3	4.07%	5.18%		6.35%		-1.05%		-1.10%		-2.15%		
	Q4	1.15%	29.17%	8.03%	29.22%	8.70%	34.20%	-6.37%	-0.04%	-0.62%	-3.71%	-6.95%	-3.75%
92	Q1	6.55%	-2.36%		-1.33%		9.12%		-1.04%		7.99%		
	Q2	2.98%	1.92%		-0.12%		1.04%		2.05%		3.11%		
Latest:													
	1 YR	15.50%	13.07%		13.93%		2.15%		-0.74%		1.38%		
	3 yrs	10.77%	12.07%		11.18%		-1.16%		0.80%		-0.37%		
	5 yrs	9.63%	9.62%		9.09%		0.00%		0.49%		0.50%		
	Cum 801Q-922Q	18.32%	15.56%		15.07%		2.38%		0.43%		2.82%		
	Std Dev	17.36%	15.63%		17.58%		6.35%		2.69%		5.82%		

MANAGER FACT SHEET

Manager: Brinson Partners

Investment Philosophy

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

Research

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

Portfolio Management

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

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

All individual accounts have the same holdings except for client imposed investment restrictions.

Ownership

Approximately 63% of the firm is owned by the employees of which about half the employees have some ownership in the firm. The rest of the ownership is held by several outside investors with the greatest percentage of ownership being no greater than 11%. Total equity assets managed: \$4.0 billion

Total number of accounts: 278

Total equity assets managed for this discipline: \$2.5 billion

Total number of accounts for this discipline: 66

Three largest tax-exempt accounts

Corporate plan	\$579 million
Corporate plan	\$381 million
Public plan	\$202 million

QUANTITATIVE EVALUATION

Manager: Brinson Partners

Performance Series Description

Period Range: January 1987 - June 1992
 Observations: 66
 Benchmark: Brinson Partners Benchmark with 10% cash
 Market: Wilshire 5000 Index

	<u>Annual ROR</u>	<u>Annual Std. Dev</u>	<u>Info Ratio (IR)</u>	<u>IR T-Stat</u>
Actual minus market (EXM)	2.60434	9.71247	0.26814	0.62080
Bnmk minus market (MFT)	-0.37292	1.84799	-0.20180	-0.47415
Actual minus bnmk (VAM)	2.98841	8.32602	0.35892	0.82942

Residual Correlation Matrix

	EXM	MFT	VAM	
EXM	1.00	---	---	EXM: Market
MFT	.79183	1.00	---	MFT: Style/Benchmark
VAM	.99077	.70714	1.00	VAM: Value added to benchmark

Staff Comments

The manager has outperformed the submitted benchmark but at a statistically insignificant level. The benchmark submitted by the manager provides a marginally better measure by which to evaluate the manager than a market index.

Investment Manager:

BRINSON PARTNERS (NET OF FEES)

Benchmark:

R&T CUSTOM

	--PORTFOLIO--		--BENCHMARK--		--WILSHIRE 5000--		--VAM (PT/BK)--		--STYLE (BK/W5)--		--TOTAL (PT/W5)--		
	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	
80	Q1												
	Q2												
	Q3												
	Q4												
81	Q1												
	Q2												
	Q3												
	Q4												
82	Q1												
	Q2												
	Q3												
	Q4												
83	Q1												
	Q2												
	Q3												
	Q4												
84	Q1												
	Q2												
	Q3												
	Q4												
85	Q1												
	Q2												
	Q3												
	Q4												
86	Q1												
	Q2												
	Q3												
	Q4												
87	Q1	12.22%		19.08%	21.17%		-5.77%		-1.72%		-7.39%		
	Q2	4.55%		3.75%	3.28%		0.77%		0.45%		1.23%		
	Q3	3.56%		5.32%	6.22%		-1.68%		-0.84%		-2.50%		
	Q4	-6.95%	13.04%	-20.57%	3.36%	-23.05%	2.27%	17.14%	9.37%	3.23%	1.06%	20.93%	10.53%
88	Q1	9.05%		8.29%	8.01%		0.70%		0.26%		0.96%		
	Q2	6.17%		5.98%	6.55%		0.18%		-0.54%		-0.36%		
	Q3	0.95%		0.51%	0.16%		0.43%		0.35%		0.78%		
	Q4	3.80%	21.32%	2.22%	17.91%	2.31%	17.94%	1.55%	2.89%	-0.10%	-0.03%	1.45%	2.86%
89	Q1	8.05%		6.68%	7.42%		1.28%		-0.68%		0.58%		
	Q2	7.38%		8.42%	8.55%		-0.96%		-0.11%		-1.08%		
	Q3	9.01%		9.00%	10.14%		0.01%		-1.03%		-1.02%		
	Q4	1.28%	28.08%	0.10%	26.20%	0.59%	29.17%	1.18%	1.49%	-0.49%	-2.30%	0.68%	-0.84%
90	Q1	-1.05%		-2.55%	-3.52%		1.54%		1.00%		2.55%		
	Q2	4.73%		4.59%	5.48%		0.13%		-0.84%		-0.71%		
	Q3	-14.64%		-14.24%	-15.21%		-0.46%		1.15%		0.68%		
	Q4	8.44%	-4.07%	9.01%	-4.71%	8.73%	-6.18%	-0.52%	0.67%	0.26%	1.56%	-0.27%	2.25%
91	Q1	16.67%		15.21%	16.46%		1.27%		-1.07%		0.18%		
	Q2	0.19%		-0.67%	-0.32%		0.87%		-0.35%		0.51%		
	Q3	3.78%		5.60%	6.35%		-1.72%		-0.71%		-2.42%		
	Q4	3.84%	25.96%	7.22%	29.57%	8.70%	34.20%	-3.16%	-2.79%	-1.36%	-3.45%	-4.48%	-6.14%
92	Q1	3.29%		-0.72%	-1.33%		4.03%		0.62%		4.68%		
	Q2	1.59%		0.47%	-0.12%		1.11%		0.60%		1.71%		
Latest:													
	1 yr		13.08%		12.94%		13.93%		0.11%		-0.87%		-0.75%
	3 yrs		11.85%		10.34%		11.18%		1.37%		-0.76%		0.61%
	5 yrs		13.68%		8.92%		9.09%		4.36%		-0.15%		4.21%
	Cum 871Q-922Q		15.67%		12.31%		12.73%		2.99%		-0.37%		2.60%
	Std Dev		12.14%		17.12%		18.48%		8.33%		1.85%		9.71%

MANAGER FACT SHEET

Manager: **Equitable Capital Management**
 Growth Equities Management

Investment Philosophy

Equitable believes the key to long term price appreciation is superior earnings growth. The firm invests in: 1) companies which are growing faster than the market average and 2) companies where the ratio of reinvestment rate (a proxy for sustainable earnings growth) to P/E is higher than that of the market. Equitable's strategy is applied across all capitalization sectors of the market.

Portfolio Management

Equitable uses a bottom-up fundamental approach to securities analysis. The stock selection process favors companies that have the potential for strong earnings growth, strong and stable corporate management, high return on equity and a solid balance sheet.

Portfolios are structured around clearly articulated themes. Key companies within these themes will often represent a major portion of the portfolio. Stocks are purchased with a one to three year time horizon in mind. Stocks are sold when valuation expectations have been realized, when changes in company or industry fundamentals occur, or when research uncovers better investment opportunities.

Growth equity portfolios contain 80 to 110 issues. An individual issue generally does not exceed 5% of a portfolio, but may reach 10% in unusual circumstances. Sector allocation is a by-product of the investment theme and stock selection process, but is monitored so that industry weightings do not exceed 25% of a portfolio. A typical growth equity portfolio may contain a small percentage of convertible securities. Cash positions will range between 0% and 10%.

Ownership

Equitable Capital is a wholly-owned subsidiary of Equitable Life Assurance Society.

Total equity assets managed: \$7,560 million

Total number of accounts: 31

Total equity assets managed for this discipline: \$5,419 million

Total number of accounts for this discipline: 13

Three largest tax-exempt accounts:	Commingled	\$1,737 million
	Taft-Hartley	538 million
	Public	181 million

QUANTITATIVE EVALUATION

Manager: Equitable Capital Management

Performance Series Description

Period Range: January 1980 - June 1992
Observations: 150
Benchmark: S&P 500 Index
Market: Wilshire 5000 Index

	<u>Annual ROR</u>	<u>Annual Std. Dev</u>	<u>Info Ratio (IR)</u>	<u>IR T-Stat</u>
Actual minus market (EXM)	2.19093	6.73031	.32553	1.13850
Bnmk minus market (MFT)	.66430	2.20563	.30118	1.06133
Actual minus bnmk (VAM)	1.51656	7.33414	.20678	0.72559

Residual Correlation Matrix

	EXM	MFT	VAM	
EXM	1.00	---	---	EXM: Market
MFT	-.12219	1.00	---	MFT: Style/Benchmark
VAM	.95442	-.41286	1.00	VAM: Value added to benchmark

Staff Comments

The manager has added value to the submitted benchmark but not at a statistically significant level. The benchmark submitted is a poor benchmark by which to judge the manager.

	--PORTFOLIO--		--BENCHMARK--		--WILSHIRE 5000--		--VAM (PT/BK)--		--STYLE (BK/W5)--		--TOTAL (PT/W5)--		
	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	
80	Q1	-4.63%	-4.08%		-5.63%		-0.58%		1.65%		1.06%		
	Q2	14.45%	13.41%		15.02%		0.92%		-1.40%		-0.50%		
	Q3	20.77%	11.20%		12.83%		8.60%		-1.44%		7.03%		
	Q4	13.96%	50.23%	9.44%	32.40%	9.15%	33.67%	4.13%	13.47%	0.27%	-0.95%	4.41%	12.39%
81	Q1	1.39%		1.38%		1.82%		0.01%		-0.43%		-0.42%	
	Q2	-0.19%		-2.32%		-0.19%		2.17%		-2.13%		-0.01%	
	Q3	-11.30%		-10.24%		-12.13%		-1.18%		2.15%		0.94%	
	Q4	7.85%	-3.19%	7.01%	-4.88%	7.79%	-3.75%	0.79%	1.78%	-0.73%	-1.18%	0.06%	0.58%
82	Q1	-6.71%		-7.23%		-0.92%		0.56%		2.15%		2.73%	
	Q2	-3.39%		-0.57%		-1.13%		-2.83%		0.56%		-2.29%	
	Q3	11.48%		11.46%		11.33%		0.02%		0.12%		0.14%	
	Q4	26.17%	26.77%	18.33%	21.65%	18.76%	18.71%	6.62%	4.21%	-0.36%	2.48%	6.24%	6.79%
83	Q1	9.01%		10.03%		11.43%		-0.93%		-1.25%		-2.17%	
	Q2	11.07%		11.01%		13.03%		0.05%		-1.79%		-1.73%	
	Q3	-2.01%		-0.10%		-0.94%		-1.92%		0.85%		-1.08%	
	Q4	1.54%	20.47%	0.24%	22.33%	-1.04%	23.47%	1.29%	-1.52%	1.30%	-0.92%	2.61%	-2.42%
84	Q1	-6.14%		-2.40%		-4.20%		-3.84%		1.88%		-2.03%	
	Q2	-2.66%		-2.54%		-2.77%		-0.13%		0.23%		0.11%	
	Q3	8.20%		9.68%		9.19%		-1.35%		0.45%		-0.91%	
	Q4	-0.64%	-1.79%	1.78%	6.19%	1.32%	3.05%	-2.38%	-7.51%	0.46%	3.05%	-1.93%	-4.69%
85	Q1	12.31%		9.20%		10.35%		2.85%		-1.04%		1.77%	
	Q2	6.60%		7.29%		7.47%		-0.64%		-0.17%		-0.81%	
	Q3	-5.62%		-4.11%		-4.27%		-1.58%		0.17%		-1.41%	
	Q4	17.46%	32.72%	17.24%	31.72%	16.77%	32.56%	0.19%	0.76%	0.41%	-0.64%	0.60%	0.12%
86	Q1	19.44%		14.04%		14.38%		4.74%		-0.29%		4.43%	
	Q2	3.85%		5.89%		5.80%		-1.93%		0.09%		-1.84%	
	Q3	-12.33%		-6.96%		-7.73%		-5.77%		0.83%		-4.99%	
	Q4	5.18%	14.38%	5.36%	18.38%	3.97%	16.09%	-0.17%	-3.38%	1.33%	1.97%	1.16%	-1.48%
87	Q1	23.51%		21.32%		21.17%		1.80%		0.12%		1.93%	
	Q2	1.86%		5.12%		3.28%		-3.10%		1.79%		-1.37%	
	Q3	11.97%		6.61%		6.22%		5.03%		0.37%		5.42%	
	Q4	-24.60%	6.21%	-22.62%	5.21%	-23.05%	2.27%	-2.57%	0.94%	0.57%	2.87%	-2.01%	3.85%
88	Q1	7.35%		5.82%		8.01%		1.44%		-2.03%		-0.61%	
	Q2	5.11%		6.51%		6.55%		-1.32%		-0.03%		-1.35%	
	Q3	2.55%		0.39%		0.16%		2.15%		0.22%		2.38%	
	Q4	1.57%	17.53%	3.10%	16.66%	2.31%	17.94%	-1.48%	0.74%	0.77%	-1.09%	-0.73%	-0.35%
89	Q1	10.14%		7.00%		7.42%		2.94%		-0.39%		2.53%	
	Q2	13.53%		8.77%		8.55%		4.38%		0.21%		4.60%	
	Q3	11.62%		10.60%		10.14%		0.92%		0.42%		1.34%	
	Q4	4.17%	45.39%	1.99%	31.28%	0.59%	29.17%	2.14%	10.75%	1.39%	1.63%	3.56%	12.55%
90	Q1	-6.18%		-3.01%		-3.52%		-3.27%		0.52%		-2.77%	
	Q2	1.56%		6.28%		5.48%		-4.44%		0.76%		-3.72%	
	Q3	-17.35%		-13.77%		-15.21%		-4.15%		1.70%		-2.52%	
	Q4	13.15%	-10.90%	8.95%	-3.17%	8.73%	-6.18%	3.85%	-7.99%	0.20%	3.21%	4.06%	-5.03%
91	Q1	22.84%		14.55%		16.46%		7.24%		-1.64%		5.48%	
	Q2	-4.43%		-0.22%		-0.32%		-4.21%		0.10%		-4.12%	
	Q3	16.35%		5.37%		6.35%		10.41%		-0.92%		9.40%	
	Q4	11.86%	52.80%	8.36%	30.51%	8.70%	34.20%	3.23%	17.08%	-0.31%	-2.75%	2.91%	13.86%
92	Q1	-4.72%		-2.53%		-1.33%		-2.25%		-1.22%		-3.43%	
	Q2	-2.76%		1.97%		-0.12%		-4.63%		2.09%		-2.64%	
Latest:													
	1 YR		20.59%		13.48%		13.93%		6.26%		-0.39%		5.85%
	3 yrs		13.60%		12.30%		11.18%		1.16%		1.01%		2.18%
	5 yrs		12.72%		9.68%		9.09%		2.77%		0.54%		3.33%
	Cum 801Q-922Q		17.59%		15.84%		15.07%		1.52%		0.66%		2.19%
	Std Dev		20.74%		16.36%		16.88%		7.33%		2.21%		6.73%

MANAGER FACT SHEET

Manager: Fayez Sarofim & Co.

Investment Philosophy

Fayez Sarofim focuses primarily on large capitalization, high quality companies with predictable earnings growth selling at a market multiple or slight premium. Fundamental economic, industry and company analysis are the foundation of their investment process.

The foundation of their equity strategy is to identify the right sectors of the economy and market to emphasize and concurrently, which areas to avoid.

Research

Approximately 80% of their fundamental research is generated internally. Fayez selectively utilizes numerous outside sources of information, such as government agencies, outside consultants, their clients and Wall Street sources.

Portfolio Management

The portfolio management process begins with determining the attractive sectors of the economy. Fayez then concentrates on issue selection. Investments are concentrated in the large capitalization high quality companies with predictable earnings growth available at a market multiple. Their equity holdings are balanced over a range of price/earnings multiples. They base individual, as well as structural, decisions on factors such as degree of marketability, price volatility, earnings quality and predictability, and concentration of holdings. Additionally, they correlate the equity portfolio structure with sources of corporate profits by economic sector, industry sector, and on an individual company basis.

Ownership

Fayez Sarofim & Co. is a privately-held corporation. There are fourteen active principals in the firm. The firm is owned and controlled by ten of these professionals, and each is a significant stockholder.

Total equity assets managed: \$16,790.7 million

Total number of accounts: 295

Total equity assets managed for this discipline: \$15,060.4 million

Total number of accounts for this discipline: 154

Three largest tax-exempt accounts:	Corporate Retirement	\$1,679.0 million
	Corporate Retirement	698.4 million
	Corporate Retirement	585.8 million

QUANTITATIVE EVALUATION

Manager: Fayez Sarofim

Performance Series Description

Period Range: Q1 1981 - Q2 1992

Observations: 46

Benchmark: S&P 500 Index

Market: Wilshire 5000 Index

	Annual <u>ROR</u>	Annual <u>Std. Dev</u>	Info <u>Ratio (IR)</u>	IR <u>T-Stat</u>
Actual minus market (EXM)	1.42942	4.83345	.29573	.99579
Bnmk minus market (MFT)	.80596	2.14942	.37497	1.26648
Actual minus bnmk (VAM)	.61847	4.45739	.13875	.46908

Residual Correlation Matrix

	EXM	MFT	VAM	
EXM	1.00	---	---	EXM: Market
MFT	.3905	1.00	---	MFT: Style/Benchmark
VAM	.89606	-.05877	1.00	VAM: Value added to benchmark

Staff Comments

The manager has added value to the submitted benchmark but at a statistically insignificant level. The benchmark submitted by the manager represents a reasonable benchmark by which to judge the manager.

Investment Manager:

FAYEZ SAROFIM

Benchmark:

S&P 500

	PORTFOLIO		BENCHMARK		WILSHIRE 5000		VAM (PT/BK)		STYLE (BK/W5)		TOTAL (PT/W5)	
	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return
80 Q1												
80 Q2												
80 Q3												
80 Q4												
81 Q1	-3.61%		1.38%		1.82%		-4.92%		-0.43%		-5.33%	
81 Q2	-4.82%		-2.32%		-0.19%		-2.56%		-2.13%		-4.64%	
81 Q3	-10.54%		-10.24%		-12.13%		-0.33%		2.15%		1.81%	
81 Q4	10.41%	-9.38%	7.01%	-4.88%	7.79%	-3.75%	3.18%	-4.73%	-0.73%	-1.18%	2.43%	-5.85%
82 Q1	-11.28%		-7.23%		-9.19%		-4.36%		2.15%		-2.30%	
82 Q2	-2.66%		-0.57%		-1.13%		-2.10%		0.56%		-1.55%	
82 Q3	6.52%		11.46%		11.33%		-4.43%		0.12%		-4.32%	
82 Q4	15.29%	6.06%	18.33%	21.65%	18.76%	18.71%	-2.57%	-12.82%	-0.36%	2.48%	-2.92%	-10.66%
83 Q1	9.43%		10.03%		11.43%		-0.55%		-1.25%		-1.79%	
83 Q2	9.80%		11.01%		13.03%		-1.09%		-1.79%		-2.86%	
83 Q3	-1.51%		-0.10%		-0.94%		-1.42%		0.85%		-0.58%	
83 Q4	0.06%	18.41%	0.24%	22.33%	-1.04%	23.47%	-0.18%	-3.21%	1.30%	-0.92%	1.11%	-4.09%
84 Q1	1.69%		-2.40%		-4.20%		4.19%		1.88%		6.15%	
84 Q2	-0.70%		-2.54%		-2.77%		1.89%		0.23%		2.13%	
84 Q3	9.56%		9.68%		9.19%		-0.11%		0.45%		0.34%	
84 Q4	0.70%	11.41%	1.78%	6.19%	1.32%	3.05%	-1.06%	4.91%	0.46%	3.05%	-0.61%	8.11%
85 Q1	10.64%		9.20%		10.35%		1.32%		-1.04%		0.26%	
85 Q2	6.64%		7.29%		7.47%		-0.61%		-0.17%		-0.78%	
85 Q3	-2.69%		-4.11%		-4.27%		1.48%		0.17%		1.65%	
85 Q4	17.56%	34.97%	17.24%	31.72%	16.77%	32.56%	0.27%	2.47%	0.41%	-0.64%	0.68%	1.82%
86 Q1	15.22%		14.04%		14.38%		1.03%		-0.29%		0.74%	
86 Q2	8.81%		5.89%		5.80%		2.76%		0.09%		2.84%	
86 Q3	-9.16%		-6.96%		-7.73%		-2.36%		0.83%		-1.55%	
86 Q4	6.51%	21.30%	5.36%	18.38%	3.97%	16.09%	1.09%	2.47%	1.33%	1.97%	2.44%	4.48%
87 Q1	21.50%		21.32%		21.17%		0.15%		0.12%		0.27%	
87 Q2	4.78%		5.12%		3.28%		-0.33%		1.79%		1.45%	
87 Q3	6.52%		6.61%		6.22%		-0.09%		0.37%		0.29%	
87 Q4	-23.15%	4.21%	-22.62%	5.21%	-23.05%	2.27%	-0.69%	-0.95%	0.57%	2.87%	-0.12%	1.90%
88 Q1	8.15%		5.82%		8.01%		2.20%		-2.03%		0.13%	
88 Q2	2.99%		6.51%		6.55%		-3.31%		-0.03%		-3.34%	
88 Q3	4.37%		0.39%		0.16%		3.97%		0.22%		4.20%	
88 Q4	5.38%	22.51%	3.10%	16.66%	2.31%	17.94%	2.21%	5.01%	0.77%	-1.09%	3.00%	3.87%
89 Q1	10.62%		7.00%		7.42%		3.39%		-0.39%		2.98%	
89 Q2	8.32%		8.77%		8.55%		-0.42%		0.21%		-0.21%	
89 Q3	12.57%		10.60%		10.14%		1.78%		0.42%		2.21%	
89 Q4	2.07%	37.68%	1.99%	31.28%	0.59%	29.17%	0.08%	4.87%	1.39%	1.63%	1.47%	6.58%
90 Q1	-3.25%		-3.01%		-3.52%		-0.24%		0.52%		0.28%	
90 Q2	10.56%		6.28%		5.48%		4.03%		0.76%		4.82%	
90 Q3	-13.66%		-13.77%		-15.21%		0.13%		1.70%		1.83%	
90 Q4	10.30%	1.87%	8.95%	-3.17%	8.73%	-6.18%	1.24%	5.20%	0.20%	3.21%	1.44%	8.58%
91 Q1	17.55%		14.55%		16.46%		2.62%		-1.64%		0.94%	
91 Q2	-0.57%		-0.22%		-0.32%		-0.35%		0.10%		-0.25%	
91 Q3	6.78%		5.37%		6.35%		1.34%		-0.92%		0.40%	
91 Q4	11.62%	39.31%	8.36%	30.51%	8.70%	34.20%	3.01%	6.74%	-0.31%	-2.75%	2.68%	3.80%
92 Q1	-3.10%		-2.53%		-1.33%		-0.58%		-1.22%		-1.79%	
92 Q2	1.50%		1.97%		-0.12%		-0.46%		2.09%		1.62%	
Latest:												
1 yr		17.23%		13.48%		13.93%		3.31%		-0.39%		2.89%
3 yrs		17.03%		12.30%		11.18%		4.21%		1.01%		5.26%
5 yrs		14.02%		9.68%		9.09%		3.96%		0.54%		4.52%
Cum 811Q-922Q		15.20%		14.50%		13.58%		0.62%		0.81%		1.43%
Std Dev		17.82%		16.63%		17.60%		4.46%		2.15%		4.83%

MANAGER FACT SHEET

Manager: Fisher Investments

Investment Philosophy

Fisher Investments' philosophy is that superior long-term results are derived from taking advantage of the pricing mechanism of the market (the relationship between investor expectations and eventual reality) by identifying and purchasing companies whose future reality is likely to be better than what is expected. This interplay of expectations vs. reality is more compelling in the small cap world because there are more inefficiencies to exploit. Thus, they invest in small cap stocks with low expectations, as measured by the Price/Sales Ratio (PSR).

Research

All research is done internally; no Wall Street research is used. External computer systems assist them in their internal research. Companies passing the initial quantitative screens are subject to qualitative research which includes interviews of twelve competitors, customers and suppliers of each individual company. Eight researchers, located throughout the country, conduct this qualitative research in addition to the other research done by their seven Investment Policy Committee (IPC) members.

Portfolio Management

Fisher's investment strategy is implemented by a disciplined investment process that centers on stock selection. The IPC is the center of their decision-making process. The IPC oversees research, stock selection, buy/sell decisions and implementation of portfolio strategy. They work in a team manner rather than using portfolio managers.

Ideas are added to their "buy list" as follows: 1) a universe of 7500 stocks is screened for market capitalizations. The top 500 are thrown out and the next 1500 comprise their eligible universe. 2) Within this universe, they screen for the low three deciles of Price/Sales ratios. 3) Their proprietary DAF (Debt Adjustment Factor) screens out companies with excessive debt.

Stocks passing these screens are assigned to IPC members for additional research. Each IPC member presents their best prospects to the committee for possible inclusion in the portfolio.

Ownership

Fisher Investments is 100% employee-owned.

Total equity assets managed: \$621 million

Total number of accounts: 66

Total equity assets managed for this discipline: \$621 million

Total number of accounts for this discipline: 66

Three largest tax-exempt accounts:	Major Airline Carrier	\$61 million
	People's Energy	\$48 million
	McConnell Foundation	\$45 million

QUANTITATIVE EVALUATION

Manager: Fisher Investments

Performance Series Description

Period Range: Q1 1981 - Q2 1992
Observations: 46
Benchmark: Fisher Investments Benchmark with 20% cash
Market: Wilshire 5000 Index

	<u>Annual ROR</u>	<u>Annual Std. Dev</u>	<u>Info Ratio (IR)</u>	<u>IR T-Stat</u>
Actual minus market (EXM)	2.83111	11.27552	0.25108	0.83964
Bnmk minus market (MFT)	-1.15523	4.75529	-0.24294	-0.82863
Actual minus bnmk (VAM)	4.03293	8.68576	0.46432	1.54365

Residual Correlation Matrix

	EXM	MFT	VAM	
EXM	1.00	---	---	EXM: Market
MFT	.69293	1.00	---	MFT: Style/Benchmark
VAM	.91879	.35206	1.00	VAM: Value added to benchmark

Staff Comments

The manager has outperformed the submitted benchmark at a statistically significant level (90%). The benchmark does provide a reasonable measure by which to evaluate the manager.

Investment Manager:
Benchmark:

FISHER INVESTMENTS
FISHER 1500 (ELIMINATE TOP 500) + 20% CASH

	--PORTFOLIO--		--BENCHMARK--		--WILSHIRE 5000--		--VAM (PT/BK)--		--STYLE (BK/W5)--		--TOTAL (PT/W5)--	
	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return
80 Q1												
80 Q2												
80 Q3												
80 Q4												
81 Q1	3.72%		5.28%		1.82%		-1.48%		3.40%		1.87%	
81 Q2	0.25%		2.59%		-0.19%		-2.28%		2.78%		0.44%	
81 Q3	-15.04%		-12.05%		-12.13%		-3.40%		0.09%		-3.31%	
81 Q4	10.80%	-2.12%	8.11%	2.70%	7.79%	-3.75%	2.49%	-4.69%	0.30%	6.70%	2.79%	1.69%
82 Q1	-12.51%		-7.48%		-9.19%		-5.44%		1.88%		-3.66%	
82 Q2	0.21%		0.25%		-1.13%		-0.04%		1.40%		1.35%	
82 Q3	11.09%		10.01%		11.33%		0.98%		-1.18%		-0.21%	
82 Q4	44.57%	40.81%	21.29%	23.77%	18.76%	18.71%	19.19%	13.76%	2.13%	4.26%	21.73%	18.61%
83 Q1	22.14%		13.77%		11.43%		7.36%		2.10%		9.61%	
83 Q2	15.87%		14.75%		13.03%		0.97%		1.52%		2.51%	
83 Q3	-4.81%		-2.45%		-0.94%		-2.42%		-1.52%		-3.91%	
83 Q4	-2.57%	31.25%	-2.65%	23.98%	-1.04%	23.47%	0.09%	5.87%	-1.63%	0.42%	-1.54%	6.31%
84 Q1	-5.36%		-6.01%		-4.20%		0.69%		-1.89%		-1.21%	
84 Q2	-2.07%		-0.34%		-2.77%		-1.74%		2.50%		0.72%	
84 Q3	14.42%		6.30%		9.19%		7.64%		-2.65%		4.79%	
84 Q4	4.45%	10.76%	0.82%	0.39%	1.32%	3.05%	3.60%	10.34%	-0.49%	-2.58%	3.09%	7.49%
85 Q1	12.70%		10.35%		10.35%		2.13%		0.00%		2.13%	
85 Q2	2.64%		5.85%		7.47%		-3.03%		-1.51%		-4.50%	
85 Q3	4.57%		-3.10%		-4.27%		7.91%		1.22%		9.23%	
85 Q4	13.06%	36.76%	13.40%	28.35%	16.77%	32.56%	-0.30%	6.55%	-2.89%	-3.18%	-3.17%	3.16%
86 Q1	14.89%		12.33%		14.38%		2.28%		-1.79%		0.45%	
86 Q2	6.18%		6.68%		5.80%		-0.47%		0.84%		0.36%	
86 Q3	-6.28%		-8.95%		-7.73%		2.93%		-1.32%		1.57%	
86 Q4	6.31%	21.54%	1.52%	10.77%	3.97%	16.09%	4.72%	9.73%	-2.36%	-4.59%	2.25%	4.69%
87 Q1	18.92%		17.31%		21.17%		1.37%		-3.19%		-1.86%	
87 Q2	0.26%		-0.39%		3.28%		0.65%		-3.55%		-2.92%	
87 Q3	6.40%		3.65%		6.22%		2.66%		-2.42%		0.17%	
87 Q4	-12.32%	11.23%	-20.46%	-3.67%	-23.05%	2.27%	10.23%	15.46%	3.37%	-5.81%	13.95%	8.76%
88 Q1	16.72%		12.37%		8.01%		3.87%		4.03%		8.06%	
88 Q2	4.29%		5.96%		6.55%		-1.58%		-0.55%		-2.12%	
88 Q3	0.41%		-0.50%		0.16%		0.92%		-0.67%		0.25%	
88 Q4	1.18%	23.67%	0.60%	19.18%	2.31%	17.94%	0.58%	3.77%	-1.68%	1.05%	-1.11%	4.86%
89 Q1	4.80%		6.64%		7.42%		-1.73%		-0.72%		-2.44%	
89 Q2	2.27%		6.48%		8.55%		-3.95%		-1.91%		-5.78%	
89 Q3	2.13%		6.85%		10.14%		-4.42%		-2.98%		-7.27%	
89 Q4	-3.92%	5.17%	-2.14%	18.73%	0.59%	29.17%	-1.82%	-11.42%	-2.72%	-8.09%	-4.48%	-18.58%
90 Q1	0.45%		-1.08%		-3.52%		1.55%		2.52%		4.11%	
90 Q2	3.20%		4.35%		5.48%		-1.10%		-1.07%		-2.16%	
90 Q3	-15.99%		-16.63%		-15.21%		0.76%		-1.67%		-0.92%	
90 Q4	9.43%	-4.70%	6.72%	-8.16%	8.73%	-6.18%	2.54%	3.77%	-1.85%	-2.11%	0.64%	1.58%
91 Q1	26.90%		20.43%		16.46%		5.38%		3.41%		8.97%	
91 Q2	-0.94%		-0.04%		-0.32%		-0.90%		0.28%		-0.62%	
91 Q3	3.03%		6.65%		6.35%		-3.39%		0.28%		-3.12%	
91 Q4	1.88%	31.95%	4.89%	34.66%	8.70%	34.20%	-2.87%	-2.01%	-3.51%	0.34%	-6.28%	-1.68%
92 Q1	10.19%		4.70%		-1.33%		5.24%		6.12%		11.68%	
92 Q2	-10.69%		-4.66%		-0.12%		-6.32%		-4.55%		-10.58%	
Latest:												
1 yr		3.30%		11.66%		13.93%		-7.49%		-1.99%		-9.33%
3 yrs		6.68%		8.87%		11.18%		-2.01%		-2.07%		-4.04%
5 yrs		8.47%		7.57%		9.09%		0.84%		-1.40%		-0.57%
Cum 811Q-912Q		16.80%		12.27%		13.58%		4.03%		-1.16%		2.83%
Std Dev		20.80%		17.24%		17.60%		8.69%		4.76%		11.28%

MANAGER FACT SHEET

Manager: Investment Advisers, Inc.
Small Cap Equity

Investment Philosophy

IAI's small capitalization equity strategy is to identify companies with superior fundamental strength and profitability, above average earnings momentum and strong management. IAI's process focuses primarily on bottom up stock selection although the firm's credit cycle work will assist in identifying attractive economic sectors.

Research

All of IAI's 12 portfolio managers do their own research and are assisted by two equity analysts who perform additional research. Managers have individual responsibilities and will visit companies to make direct research contacts. IAI utilizes its Venture Capital management team for direct research in specialized areas such as technology, telecommunications, and medically-related industries

Portfolio Management

IAI has 12 portfolio managers with decision-making responsibilities. All major investment decisions are formulated through the group decision-making process. Three committees, each discussing separate investment areas (asset allocation, equity strategy and fixed-income strategy) report their findings to the entire Investment Committee.

IAI's research process identifies companies with superior fundamental strength and profitability, which generate earnings growth faster than the growth of the economy and with strong company management. Themes which play an important role domestically and globally are also identified.

IAI's universe starts with approximately 5,000 issues for its small cap product. These companies are screened for strong fundamental balance sheet characteristics, strong and demonstrated earnings, and company management that is working in the best interest of its shareholders. Once the universe of companies is screened down to a more manageable number of companies, IAI completes due diligence on the specific companies. An investable universe of 200 companies is identified for the small cap portfolios.

Ownership

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

Total equity assets managed \$4,574 million

Total number of accounts 217

Total equity assets managed for this discipline. \$416 million

Total number of accounts for this discipline 16

Three largest tax-exempt accounts	IAI Regional Fund	\$324.0 million
	Anne Arundel Cty, MD	\$31 million
	Imcera	\$23 million

QUANTITATIVE EVALUATION

Manager: Investment Advisers Small Cap

Performance Series Description

Period Range: Q1 1981 - Q2 1992

Observations: 46

Benchmark: Frank Russell 2000

Market: Wilshire 5000 Index

	<u>Annual ROR</u>	<u>Annual Std. Dev</u>	<u>Info Ratio (IR)</u>	<u>IR T-Stat</u>
Actual minus market (EXM)	4.85645	8.39981	0.57816	1.91452
Bnmk minus market (MFT)	-2.32169	9.23652	-0.25136	-0.86245
Actual minus bnmk (VAM)	7.34875	11.40878	0.64413	2.10782

Residual Correlation Matrix

	EXM	MFT	VAM	
EXM	1.00	---	---	EXM: Market
MFT	.16569	1.00	---	MFT: Style/Benchmark
VAM	.60212	-.68761	1.00	VAM: Value added to benchmark

Staff Comments

The manager has outperformed the benchmark at a statistically significant level (97.5%). However, the benchmark represents a poor measure by which to evaluate the manager.

Investment Manager:
Benchmark:

INVESTMENT ADVISERS
FRANK RUSSELL 2000

	PORTFOLIO		BENCHMARK		WILSHIRE 5000		VAM (PT/BK)		STYLE (BK/W5)		TOTAL (PT/W5)	
	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return
80 Q1												
80 Q2												
80 Q3												
80 Q4												
81 Q1	-2.10%		8.29%		1.82%		-9.59%		6.36%		-3.85%	
81 Q2	2.60%		3.71%		-0.19%		-1.07%		3.91%		2.79%	
81 Q3	-9.90%		-17.53%		-12.13%		9.25%		-6.14%		2.54%	
81 Q4	8.10%	-2.17%	10.16%	2.03%	7.79%	-3.75%	-1.87%	-4.11%	2.20%	6.00%	0.29%	1.64%
82 Q1	-4.00%		-9.32%		-9.19%		5.87%		-0.15%		5.71%	
82 Q2	3.80%		-1.44%		-1.13%		5.31%		-0.31%		4.98%	
82 Q3	9.80%		10.54%		11.33%		-0.67%		-0.71%		-1.37%	
82 Q4	31.20%	43.55%	26.47%	24.95%	18.76%	18.71%	3.74%	14.89%	6.50%	5.25%	10.48%	20.93%
83 Q1	8.20%		17.45%		11.43%		-7.87%		5.40%		-2.90%	
83 Q2	9.00%		20.29%		13.03%		-9.39%		6.42%		-3.57%	
83 Q3	-3.50%		-4.90%		-0.94%		1.47%		-4.00%		-2.59%	
83 Q4	0.40%	14.27%	-3.89%	29.13%	-1.04%	23.47%	4.46%	-11.51%	-2.88%	4.59%	1.46%	-7.45%
84 Q1	-5.40%		-6.71%		-4.20%		1.40%		-2.62%		1.25%	
84 Q2	-3.80%		-3.01%		-2.77%		-0.82%		-0.25%		-1.06%	
84 Q3	5.90%		5.50%		9.19%		0.38%		-3.38%		-3.01%	
84 Q4	2.30%	-1.41%	-2.90%	-7.30%	1.32%	3.05%	5.35%	6.36%	-4.16%	-10.04%	0.97%	-4.32%
85 Q1	11.70%		13.91%		10.35%		-1.94%		3.23%		1.22%	
85 Q2	9.80%		3.54%		7.47%		6.04%		-3.66%		2.16%	
85 Q3	-2.00%		-4.36%		-4.27%		2.46%		-0.09%		2.37%	
85 Q4	16.50%	40.03%	16.17%	31.05%	16.77%	32.56%	0.29%	6.85%	-0.51%	-1.14%	-0.23%	5.63%
86 Q1	14.30%		14.16%		14.38%		0.12%		-0.19%		-0.07%	
86 Q2	17.20%		4.85%		5.80%		11.78%		-0.90%		10.77%	
86 Q3	-10.50%		-12.24%		-7.73%		1.99%		-4.90%		-3.00%	
86 Q4	4.70%	25.53%	0.62%	5.68%	3.97%	16.09%	4.06%	18.78%	-3.23%	-8.97%	0.70%	8.13%
87 Q1	19.20%		24.31%		21.17%		-4.11%		2.60%		-1.62%	
87 Q2	4.80%		-0.71%		3.28%		5.55%		-3.86%		1.47%	
87 Q3	2.90%		4.19%		6.22%		-1.24%		-1.91%		-3.12%	
87 Q4	-15.30%	8.88%	-29.06%	-8.77%	-23.05%	2.27%	19.40%	19.34%	-7.80%	-10.80%	10.08%	6.46%
88 Q1	10.40%		19.07%		8.01%		-7.28%		10.24%		2.21%	
88 Q2	6.90%		6.59%		6.55%		0.29%		0.04%		0.33%	
88 Q3	-1.80%		-0.94%		0.16%		-0.87%		-1.10%		-1.96%	
88 Q4	2.90%	19.25%	-0.66%	24.89%	2.31%	17.94%	3.59%	-4.52%	-2.91%	5.89%	0.57%	1.11%
89 Q1	6.70%		7.70%		7.42%		-0.93%		0.27%		-0.67%	
89 Q2	4.40%		6.37%		8.55%		-1.85%		-2.01%		-3.82%	
89 Q3	13.10%		6.75%		10.14%		5.95%		-3.07%		2.69%	
89 Q4	1.70%	28.13%	-4.95%	16.24%	0.59%	29.17%	7.00%	10.22%	-5.51%	-10.01%	1.10%	-0.81%
90 Q1	-0.40%		-2.21%		-3.52%		1.85%		1.35%		3.23%	
90 Q2	11.60%		3.85%		5.48%		7.46%		-1.54%		5.81%	
90 Q3	-18.10%		-24.54%		-15.21%		8.53%		-11.00%		-3.40%	
90 Q4	12.30%	2.23%	5.03%	-19.52%	8.73%	-6.18%	6.93%	27.02%	-3.41%	-14.21%	3.28%	8.97%
91 Q1	28.60%		29.74%		16.46%		-0.88%		11.40%		10.43%	
91 Q2	1.70%		-1.55%		-0.32%		3.30%		-1.24%		2.03%	
91 Q3	17.60%		8.16%		6.35%		8.73%		1.70%		10.58%	
91 Q4	14.80%	76.57%	5.72%	46.04%	8.70%	34.20%	8.59%	20.90%	-2.75%	8.82%	5.61%	31.57%
92 Q1	-3.20%		7.68%		-1.33%		-10.11%		9.14%		-1.89%	
92 Q2	-7.69%		-6.82%		-0.12%		-0.93%		-6.71%		-7.58%	
Latest:												
1 yr		20.63%		14.73%		13.93%		5.15%		0.70%		5.89%
3 yrs		22.85%		6.16%		11.18%		15.72%		-4.51%		10.50%
5 yrs		16.52%		4.82%		9.09%		11.16%		-3.91%		6.81%
Cum 811Q-922Q		19.10%		10.94%		13.58%		7.35%		-2.32%		4.85%
Std Dev		19.35%		23.86%		17.60%		11.41%		9.24%		8.40%

MANAGER FACT SHEET

Manager: Jennison Associates

Investment Philosophy

Jennison Associates invests in medium-to-large capitalization companies with strong historical and expected futures earnings growth. These companies generally exhibit superior sales and unit growth, high returns on assets and equity, and positive earnings momentum. The firm conducts traditional fundamental analysis on a relatively small set of stocks that it believes has the best potential for near and intermediate term growth.

Research

Jennison Associates does not actively use screens to determine which stocks to follow. Rather analysts and portfolio managers determine the 300-400 stock universe list. Investment ideas for this list are generated from various sources such as the financial press, Wall Street, and company presentations.

Jennison Associates conducts traditional fundamental research on the companies in its research list. Jennison's portfolio managers and analysts are assigned specific industries and receive their research assignments quarterly when the research list is updated. The securities research focuses on making 12-18 month and 3 year earnings forecasts, which are updated quarterly. In making their earnings projections, Jennison's investment professionals examine such things as industry dynamics, company market position, and company finances.

Portfolio Management

Twice a month Jennison Associates publishes a statistical reference sheet and a change in earnings report. The statistical reference sheet highlights the various fundamental research data that Jennison incorporates into its investment process (e.g. absolute and relative price/earnings ratios, debt/capital, yield, historical earnings, and sales growth rates). The earnings report focuses on changes in earnings for the next quarter, 12-18 months and 3 years. Each morning the analysts and portfolio managers meet to discuss potential purchases and sales. Typically an analyst or portfolio manager will sponsor a company for purchase but the final decision is made by the group. Securities are generally sold as a result of disappointing earnings without an adequate explanation, a negative change in company fundamentals, or significant price appreciation beyond perceived fair value. Jennison Associates tends to sell cyclical and volatile securities quickly.

Portfolios typically hold 50-65 issues. Large companies are added to or deleted from all portfolios, while individual portfolio managers have discretion concerning smaller companies. Jennison tends to make aggressive sector bets and maintains fully invested positions, with cash averaging about 5%.

Ownership

Jennison is a wholly-owned subsidiary of Prudential Insurance Company of America

Total equity assets managed \$9.8 billion

Total number of accounts: 56

Total equity assets managed for this discipline: \$9.8 billion

Total number of accounts for this discipline 56

Three largest tax-exempt accounts

Corporate	\$688 million
Corporate	\$669 million
Corporate	\$582 million

QUANTITATIVE EVALUATION

Manager: Jennison Associates

Performance Series Description

Period Range: January 1980 - June 1992
Observations: 150
Benchmark: Jennison Associates Benchmark with 5% cash
Market: Wilshire 5000 Index

	<u>Annual ROR</u>	<u>Annual Std. Dev</u>	<u>Info Ratio (IR)</u>	<u>IR T-Stat</u>
Actual minus market (EXM)	4.15177	8.99633	0.46150	1.59867
Bnmk minus market (MFT)	-1.16312	4.28462	-0.27146	-0.96539
Actual minus bnmk (VAM)	5.37744	7.45618	0.72120	2.48365

Residual Correlation Matrix

	EXM	MFT	VAM	
EXM	1.00	---	---	EXM: Market
MFT	.56682	1.00	---	MFT: Style/Benchmark
VAM	.88084	.10926	1.00	VAM: Value added to benchmark

Staff Comments

The manager has outperformed the submitted benchmark at a statistically significant level (99%). In addition, the benchmark provides a good measure by which to evaluate the manager.

Investment Manager:

JENNISON ASSOCIATES (NET OF FEES)

Benchmark:

R&T CUSTOM

	PORTFOLIO		BENCHMARK		WILSHIRE 5000		VAM (PT/BK)		STYLE (BK/W5)		TOTAL (PT/W5)		
	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	
80	Q1	18.77%	-6.76%		-5.63%		27.38%		-1.19%		25.86%		
	Q2	12.75%	15.53%		15.02%		-2.41%		0.44%		-1.97%		
	Q3	23.90%	17.09%		12.83%		5.82%		3.77%		9.81%		
	Q4	14.46%	89.92%	10.74%	39.68%	9.15%	33.67%	3.36%	35.98%	1.46%	4.49%	4.87%	42.08%
81	Q1	2.01%	2.08%		1.82%		-0.07%		0.25%		0.19%		
	Q2	1.65%	-1.80%		-0.19%		3.51%		-1.62%		1.84%		
	Q3	-12.14%	-13.43%		-12.13%		1.49%		-1.47%		-0.01%		
	Q4	6.13%	-3.32%	7.99%	-6.29%	7.79%	-3.75%	-1.72%	3.17%	0.19%	-2.64%	-1.54%	0.45%
82	Q1	-7.14%	-10.48%		-9.19%		3.73%		-1.42%		2.25%		
	Q2	-2.15%	-1.13%		-1.13%		-1.03%		0.00%		-1.04%		
	Q3	11.67%	12.07%		11.33%		-0.36%		0.67%		0.31%		
	Q4	24.94%	26.77%	22.46%	21.47%	18.76%	18.71%	2.03%	4.37%	3.12%	2.32%	5.21%	6.79%
83	Q1	11.27%	10.96%		11.43%		0.28%		-0.42%		-0.14%		
	Q2	12.59%	14.25%		13.03%		-1.45%		1.08%		-0.39%		
	Q3	-4.87%	-3.37%		-0.94%		-1.55%		-2.46%		-3.97%		
	Q4	-1.71%	17.14%	-2.17%	19.84%	-1.04%	23.47%	0.48%	-2.25%	-1.14%	-2.94%	-0.67%	-5.12%
84	Q1	-8.53%	-7.50%		-4.20%		-1.11%		-3.45%		-4.52%		
	Q2	-2.92%	-2.53%		-2.77%		-0.41%		0.25%		-0.16%		
	Q3	7.44%	6.50%		9.19%		0.88%		-2.46%		-1.60%		
	Q4	0.54%	-4.08%	-0.26%	-4.23%	1.32%	3.05%	0.80%	0.16%	-1.55%	-7.06%	-0.76%	-6.92%
85	Q1	8.78%	9.93%		10.35%		-1.05%		-0.38%		-1.42%		
	Q2	8.94%	5.70%		7.47%		3.07%		-1.65%		1.36%		
	Q3	-5.18%	-6.20%		-4.27%		1.09%		-2.02%		-0.95%		
	Q4	21.51%	36.53%	17.57%	28.14%	16.77%	32.56%	3.35%	6.54%	0.69%	-3.34%	4.06%	2.99%
86	Q1	17.85%	13.79%		14.38%		3.57%		-0.51%		3.04%		
	Q2	6.28%	6.15%		5.80%		0.12%		0.33%		0.45%		
	Q3	-11.87%	-10.87%		-7.73%		-1.13%		-3.40%		-4.49%		
	Q4	7.43%	18.58%	4.42%	12.42%	3.97%	16.09%	2.89%	5.47%	0.43%	-3.16%	3.33%	2.14%
87	Q1	26.61%	23.18%		21.17%		2.79%		1.66%		4.49%		
	Q2	5.38%	3.91%		3.28%		1.42%		0.61%		2.04%		
	Q3	7.87%	6.91%		6.22%		0.90%		0.65%		1.56%		
	Q4	-21.88%	12.43%	-24.01%	3.98%	-23.05%	2.27%	2.80%	8.13%	-1.24%	1.67%	1.53%	9.93%
88	Q1	3.13%	6.44%		8.01%		-3.11%		-1.45%		-4.52%		
	Q2	7.15%	6.33%		6.55%		0.77%		-0.21%		0.56%		
	Q3	-3.94%	-1.03%		0.16%		-2.94%		-1.19%		-4.10%		
	Q4	0.77%	6.96%	1.48%	13.67%	2.31%	17.94%	-0.70%	-5.90%	-0.82%	-3.62%	-1.51%	-9.31%
89	Q1	8.92%	6.88%		7.42%		1.91%		-0.50%		1.40%		
	Q2	12.17%	8.00%		8.55%		3.86%		-0.50%		3.34%		
	Q3	11.64%	9.53%		10.14%		1.93%		-0.55%		1.37%		
	Q4	0.70%	37.35%	-1.10%	25.04%	0.59%	29.17%	1.82%	9.85%	-1.68%	-3.20%	0.11%	6.33%
90	Q1	-3.11%	-1.96%		-3.52%		-1.18%		1.62%		0.42%		
	Q2	12.00%	7.55%		5.48%		4.14%		1.96%		6.19%		
	Q3	-18.60%	-20.65%		-15.21%		2.58%		-6.42%		-4.00%		
	Q4	11.95%	-1.11%	11.33%	-6.86%	8.73%	-6.18%	0.56%	6.17%	2.39%	-0.72%	2.96%	5.40%
91	Q1	22.59%	22.21%		16.46%		0.31%		4.94%		5.27%		
	Q2	-3.94%	-2.75%		-0.32%		-1.23%		-2.43%		-3.64%		
	Q3	9.52%	9.56%		6.35%		-0.03%		3.01%		2.98%		
	Q4	16.47%	50.30%	12.80%	46.89%	8.70%	34.20%	3.25%	2.33%	3.77%	9.45%	7.14%	11.99%
92	Q1	-3.18%	-2.07%		-1.33%		-1.14%		-0.75%		-1.88%		
	Q2	-4.42%	-4.04%		-0.12%		-0.40%		-3.93%		-4.31%		
Latest:													
	1 yr	18.03%	16.14%		13.93%		1.63%		1.94%		3.60%		
	3 yrs	15.62%	11.66%		11.18%		3.54%		0.44%		3.99%		
	5 yrs	11.23%	8.22%		9.09%		2.78%		-0.79%		1.96%		
	Cum 801Q-922Q	19.85%	13.73%		15.07%		5.38%		-1.16%		4.15%		
	Std Dev	19.80%	19.16%		16.88%		7.46%		4.28%		9.00%		

MANAGER FACT SHEET

Manager: **Jundt Associates**
 Core Growth

Investment Philosophy

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

Research

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

Portfolio Management

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

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

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

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

Ownership

Jundt Associates is wholly-owned by its employees.

Total equity assets managed: \$2,921 million

Total number of accounts: 25

Total equity assets managed for this discipline: \$1,451

Total number of accounts for this discipline: 13

Three largest tax-exempt accounts

Southern Company (emerging growth)	\$346 million
Frank Russell (emerging growth)	247 million
Virginia Retirement System (core growth)	233 million

QUANTITATIVE EVALUATION

Manager: Jundt Associates, Inc.

Performance Series Description

Period Range: January 1983 - June 1992

Observations: 114

Benchmark: S&P 500 Index

Market: Wilshire 5000 Index

	<u>Annual ROR</u>	<u>Annual Std. Dev</u>	<u>Info Ratio (IR)</u>	<u>IR T-Stat</u>
Actual minus market (EXM)	3.14579	8.45225	.37218	1.12947
Bnmk minus market (MFT)	.84272	2.02108	.41697	1.27979
Actual minus bnmk (VAM)	2.28382	9.05312	.25227	.7688

Residual Correlation Matrix

	EXM	MFT	VAM	
EXM	1.00	---	---	EXM: Market
MFT	-.18831	1.00	---	MFT: Style/Benchmark
VAM	.97597	-.39906	1.00	VAM: Value added to benchmark

Staff Comments

The manager has added value to the submitted benchmark at a statistically insignificant level. However, the benchmark represents a poor measure by which to evaluate the manager.

Investment Manager:

JUNDT ASSOCIATES

Benchmark:

S&P 500

	--PORTFOLIO--		--BENCHMARK--		-WILSHIRE 5000-		-VAM (PT/BK)--		-STYLE (BK/W5)-		-TOTAL (PT/W5)-		
	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	
80	Q1												
	Q2												
	Q3												
	Q4												
81	Q1												
	Q2												
	Q3												
	Q4												
82	Q1												
	Q2												
	Q3												
	Q4												
83	Q1	13.77%		10.03%		11.43%		3.39%		-1.25%		2.10%	
	Q2	24.32%		11.01%		13.03%		11.99%		-1.79%		9.99%	
	Q3	-6.40%		-0.10%		-0.94%		-6.31%		0.85%		-5.51%	
	Q4	-3.85%	27.29%	0.24%	22.33%	-1.04%	23.47%	-4.09%	4.05%	1.30%	-0.92%	-2.84%	3.10%
84	Q1	-11.15%		-2.40%		-4.20%		-8.97%		1.88%		-7.26%	
	Q2	3.29%		-2.54%		-2.77%		5.99%		0.23%		6.23%	
	Q3	5.94%		9.68%		9.19%		-3.41%		0.45%		-2.97%	
	Q4	0.59%	-2.20%	1.78%	6.19%	1.32%	3.05%	-1.17%	-7.90%	0.46%	3.05%	-0.72%	-5.09%
85	Q1	8.91%		9.20%		10.35%		-0.26%		-1.04%		-1.30%	
	Q2	9.97%		7.29%		7.47%		2.50%		-0.17%		2.32%	
	Q3	-5.73%		-4.11%		-4.27%		-1.69%		0.17%		-1.53%	
	Q4	16.59%	31.64%	17.24%	31.72%	16.77%	32.56%	-0.55%	-0.06%	0.41%	-0.64%	-0.15%	-0.70%
86	Q1	16.90%		14.04%		14.38%		2.51%		-0.29%		2.21%	
	Q2	11.72%		5.89%		5.80%		5.50%		0.09%		5.59%	
	Q3	-11.41%		-6.96%		-7.73%		-4.78%		0.83%		-3.99%	
	Q4	4.52%	20.93%	5.36%	18.38%	3.97%	16.09%	-0.79%	2.16%	1.33%	1.97%	0.53%	4.17%
87	Q1	29.02%		21.32%		21.17%		6.35%		0.12%		6.48%	
	Q2	3.63%		5.12%		3.28%		-1.42%		1.79%		0.35%	
	Q3	6.80%		6.61%		6.22%		0.17%		0.37%		0.55%	
	Q4	-16.87%	18.70%	-22.62%	5.21%	-23.05%	2.27%	7.42%	12.82%	0.57%	2.87%	8.03%	16.06%
88	Q1	-0.87%		5.82%		8.01%		-6.33%		-2.03%		-8.22%	
	Q2	4.11%		6.51%		6.55%		-2.26%		-0.03%		-2.29%	
	Q3	-0.68%		0.39%		0.16%		-1.06%		0.22%		-0.84%	
	Q4	-0.21%	2.28%	3.10%	16.66%	2.31%	17.94%	-3.22%	-12.33%	0.77%	-1.09%	-2.47%	-13.28%
89	Q1	5.79%		7.00%		7.42%		-1.13%		-0.39%		-1.52%	
	Q2	10.06%		8.77%		8.55%		1.19%		0.21%		1.40%	
	Q3	15.77%		10.60%		10.14%		4.68%		0.42%		5.12%	
	Q4	2.21%	37.77%	1.99%	31.28%	0.59%	29.17%	0.22%	4.95%	1.39%	1.63%	1.61%	6.66%
90	Q1	0.25%		-3.01%		-3.52%		3.37%		0.52%		3.91%	
	Q2	15.89%		6.28%		5.48%		9.05%		0.76%		9.88%	
	Q3	-16.70%		-13.77%		-15.21%		-3.39%		1.70%		-1.75%	
	Q4	6.96%	3.52%	8.95%	-3.17%	8.73%	-6.18%	-1.83%	6.91%	0.20%	3.21%	-1.63%	10.34%
91	Q1	20.88%		14.55%		16.46%		5.53%		-1.64%		3.80%	
	Q2	1.46%		-0.22%		-0.32%		1.68%		0.10%		1.78%	
	Q3	16.22%		5.37%		6.35%		10.30%		-0.92%		9.28%	
	Q4	15.57%	64.73%	8.36%	30.51%	8.70%	34.20%	6.65%	26.22%	-0.31%	-2.75%	6.32%	22.75%
92	Q1	-4.91%		-2.53%		-1.33%		-2.44%		-1.22%		-3.62%	
	Q2	-5.49%		1.97%		-0.12%		-7.31%		2.09%		-5.37%	
Latest:													
	1 yr		20.72%		13.48%		13.93%		6.38%		-0.39%		5.96%
	3 yrs		21.93%		12.30%		11.18%		8.57%		1.01%		9.67%
	5 yrs		13.90%		9.68%		9.09%		3.86%		0.54%		4.41%
	Cum 8310-922Q		18.66%		16.01%		15.04%		2.28%		0.84%		3.15%
	Std Dev		19.27%		16.30%		16.53%		9.05%		2.02%		8.45%

MANAGER FACT SHEET

Manager: Kemper Asset Management

Investment Philosophy

Kemper Asset Management looks for quality stocks with a record of growth; innovation in product or technology; or product or production enhancement that are also attractively priced. Portfolios are constructed using a bottom-up fundamentally based stock selection process, which emphasizes both high quality companies and low relative stock market price. Kemper Asset Management will analyze economic, political, and market factors in determining the composition of the portfolio. However, such factors are secondary to the fundamental, qualitative factors of the company and the current stock price.

Research

Kemper's most important evaluation criteria is deciding whether the company has good management. Kemper's analysts spend a considerable amount of time in evaluating management's objectives and whether the company has the resources and ability to accomplish them. Kemper's analysts also do fundamental analysis to evaluate the company's financial and market strength. To determine the intrinsic value of a company, the analysts project earnings and cash flow for their dividend discount model and look at the company current P/E ratio relative to its historical range.

Portfolio Management

Kemper evaluates all the stocks in their investment universe and determines their 75 best ideas which becomes their core holdings. Portfolio managers are required to purchase at least 85% of their investments from the core list. The remaining 15% can come from Kemper's approved list which comprises of approximately 300 stocks. Once a company is purchased, a write-up is done to provide a guideline for monitoring the company going forward. Lastly, the portfolios will not hold more than 10% cash and on average hold approximately 3% cash.

Kemper will sell a stock for one of three reasons. They will sell a stock when it is within 5% of its target price. Secondly, a stock will be sold if it violates any of the initial assumptions that formed the basis for purchasing it in the first place. Lastly, a stock will be sold if it can be replaced with a more compelling security.

All individual accounts have the same holdings except for client imposed investment restrictions.

Ownership

Kemper Asset management is a wholly owned subsidiary of Kemper Financial Services. Kemper Financial Services is a subsidiary of the Kemper Corporation.

Total equity assets managed \$1.6 billion

Total number of accounts: 34

Total equity assets managed for this discipline: \$1.0 billion

Total number of accounts for this discipline: 22

Three largest tax-
exempt accounts

Not disclosed	\$363.5 million
Louisiana Teachers	\$267.6 million
Louisiana School Employees	\$261.3 million

QUANTITATIVE EVALUATION

Manager: Kemper Asset Management

Performance Series Description

Period Range: Q1 1980 - Q2 1992
 Observations: 50
 Benchmark: Kemper Asset Management Benchmark with 5% cash
 Market: Wilshire 5000 Index

	<u>Annual ROR</u>	<u>Annual Std. Dev</u>	<u>Info Ratio (IR)</u>	<u>IR T-Stat</u>
Actual minus market (EXM)	0.46930	4.11820	0.11396	0.40196
Bnmk minus market (MFT)	-1.11119	3.55555	-0.31252	-1.11112
Actual minus bnmk (VAM)	1.59825	4.01834	0.39774	1.39510

Residual Correlation Matrix

	EXM	MFT	VAM	
EXM	1.00	---	---	EXM: Market
MFT	.45943	1.00	---	MFT: Style/Benchmark
VAM	.61833	-.41398	1.00	VAM: Value added to benchmark

Staff Comments

The manager has outperformed the submitted benchmark at a statistically significant level (90%). In addition, the benchmark provides a marginally better measure by which to evaluate the manager than a market index..

Investment Manager:
Benchmark:

KEMPER
R&T CUSTOM

		PORTFOLIO		BENCHMARK		WILSHIRE 5000		VAM (PT/BK)		STYLE (BK/W5)		TOTAL (PT/W5)	
		Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return
80	Q1	-3.20%		-3.18%		-5.63%		-0.02%		2.60%		2.58%	
	Q2	11.40%		14.62%		15.02%		-2.81%		-0.35%		-3.15%	
	Q3	13.50%		15.80%		12.83%		-1.99%		2.63%		0.59%	
	Q4	12.70%	37.94%	12.47%	44.55%	9.15%	33.67%	0.20%	-4.57%	3.05%	8.14%	3.26%	3.19%
81	Q1	0.80%		-2.51%		1.82%		3.40%		-4.25%		-1.00%	
	Q2	-1.80%		-4.12%		-0.19%		2.42%		-3.94%		-1.62%	
	Q3	-8.70%		-12.02%		-12.13%		3.77%		0.13%		3.91%	
	Q4	7.20%	-3.12%	8.53%	10.74%	7.79%	-3.75%	-1.23%	8.54%	0.69%	-7.26%	-0.55%	0.65%
82	Q1	-6.20%		-11.56%		-9.19%		6.07%		-2.62%		3.29%	
	Q2	-0.70%		-1.90%		-1.13%		1.23%		-0.79%		0.43%	
	Q3	10.91%		9.79%		11.33%		1.02%		-1.38%		-0.38%	
	Q4	18.80%	22.72%	21.89%	16.09%	18.76%	18.71%	-2.53%	5.71%	2.63%	-2.21%	0.03%	3.38%
83	Q1	11.40%		11.71%		11.43%		-0.28%		0.26%		-0.02%	
	Q2	13.60%		13.56%		13.03%		0.03%		0.47%		0.50%	
	Q3	-2.80%		-3.76%		-0.94%		1.00%		-2.85%		-1.88%	
	Q4	-0.30%	22.64%	-1.69%	20.02%	-1.04%	23.47%	1.42%	2.18%	-0.66%	-2.79%	0.75%	-0.67%
84	Q1	-5.40%		-6.40%		-4.20%		1.07%		-2.30%		-1.25%	
	Q2	-2.50%		-2.78%		-2.77%		0.29%		-0.01%		0.27%	
	Q3	9.20%		8.44%		9.19%		0.70%		-0.69%		0.01%	
	Q4	2.00%	2.74%	0.23%	-1.10%	1.32%	3.05%	1.77%	3.87%	-1.07%	-4.02%	0.68%	-0.30%
85	Q1	6.70%		8.46%		10.35%		-1.62%		-1.71%		-3.31%	
	Q2	6.80%		6.68%		7.47%		0.11%		-0.74%		-0.63%	
	Q3	-4.20%		-4.87%		-4.27%		0.71%		-0.63%		0.07%	
	Q4	15.50%	26.09%	17.40%	29.22%	16.77%	32.56%	-1.62%	-2.42%	0.54%	-2.52%	-1.08%	-4.88%
86	Q1	15.20%		15.33%		14.38%		-0.12%		0.84%		0.72%	
	Q2	4.60%		4.76%		5.80%		-0.15%		-0.98%		-1.13%	
	Q3	-6.90%		-9.52%		-7.73%		2.90%		-1.95%		0.90%	
	Q4	5.60%	18.47%	4.89%	14.66%	3.97%	16.09%	0.68%	3.32%	0.88%	-1.23%	1.57%	2.04%
87	Q1	20.70%		23.61%		21.17%		-2.35%		2.01%		-0.39%	
	Q2	3.90%		4.14%		3.28%		-0.23%		0.84%		0.60%	
	Q3	5.80%		7.60%		6.22%		-1.67%		1.30%		-0.39%	
	Q4	-21.20%	4.55%	-23.31%	6.22%	-23.05%	2.27%	2.76%	-1.57%	-0.34%	3.86%	2.41%	2.23%
88	Q1	4.60%		4.72%		8.01%		-0.11%		-3.05%		-3.16%	
	Q2	6.40%		6.75%		6.55%		-0.33%		0.19%		-0.14%	
	Q3	-1.90%		-1.29%		0.16%		-0.62%		-1.45%		-2.06%	
	Q4	1.10%	10.38%	2.00%	12.55%	2.31%	17.94%	-0.88%	-1.93%	-0.31%	-4.57%	-1.19%	-6.41%
89	Q1	5.80%		7.25%		7.42%		-1.35%		-0.16%		-1.51%	
	Q2	9.00%		7.73%		8.55%		1.18%		-0.76%		0.42%	
	Q3	10.40%		11.15%		10.14%		-0.67%		0.92%		0.24%	
	Q4	3.00%	31.13%	-0.83%	27.35%	0.59%	29.17%	3.86%	2.98%	-1.41%	-1.42%	2.40%	1.52%
90	Q1	-0.50%		-1.11%		-3.52%		0.62%		2.49%		3.13%	
	Q2	7.60%		8.73%		5.48%		-1.04%		3.09%		2.01%	
	Q3	-14.30%		-17.31%		-15.21%		3.64%		-2.47%		1.08%	
	Q4	10.80%	1.66%	8.64%	-3.40%	8.73%	-6.18%	1.99%	5.24%	-0.08%	2.97%	1.90%	8.36%
91	Q1	20.70%		16.67%		16.46%		3.46%		0.18%		3.64%	
	Q2	-2.40%		-2.59%		-0.32%		0.20%		-2.28%		-2.09%	
	Q3	6.40%		7.73%		6.35%		-1.24%		1.30%		0.05%	
	Q4	14.00%	42.89%	10.41%	35.18%	8.70%	34.20%	3.25%	5.70%	1.57%	0.73%	4.87%	6.47%
92	Q1	-4.90%		-1.76%		-1.33%		-3.20%		-0.43%		-3.62%	
	Q2	-5.00%		-2.29%		-0.12%		-2.78%		-2.17%		-4.88%	
Latest:													
1 yr			9.58%		14.18%		13.93%		-4.04%		0.22%		-3.81%
3 yrs			14.26%		11.37%		11.18%		2.60%		0.17%		2.77%
5 yrs			9.63%		8.19%		9.09%		1.33%		-0.82%		0.50%
Cum 801Q-922Q			15.61%		13.79%		15.07%		1.60%		-1.11%		0.47%
Std Dev			17.23%		19.15%		17.58%		4.02%		3.56%		4.12%

MANAGER FACT SHEET

Manager: Lincoln Capital Management

Investment Philosophy

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

Research

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

Portfolio Management

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

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

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

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

Ownership

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

Total equity assets managed: \$7.4 billion

Total number of accounts: 35

Total equity assets managed for this discipline: \$7.4 billion

Total Number of accounts for this discipline: 35

Three largest tax-exempt accounts:

General Motors	\$523 million
Ameritech	\$489 million
Virginia Retirement System	\$441 million

QUANTITATIVE EVALUATION

Manager: Lincoln Capital Management

Performance Series Description

Period Range: January 1985 - June 1992
Observations: 90
Benchmark: Lincoln Capital Benchmark with 5% cash
Market: Wilshire 5000 Index

	<u>Annual ROR</u>	<u>Annual Std. Dev</u>	<u>Info Ratio (IR)</u>	<u>IR T-Stat</u>
Actual minus market (EXM)	3.78534	5.78920	.65386	1.75761
Bnmk minus market (MFT)	.26289	4.11198	.06393	.17486
Actual minus bnmk (VAM)	3.51321	4.01778	.87441	2.35358

Residual Correlation Matrix

	EXM	MFT	VAM	
EXM	1.00	---	---	EXM: Market
MFT	.72003	1.00	---	MFT: Style/Benchmark
VAM	.70399	.01404	1.00	VAM: Value added to benchmark

Staff Comments

The manager has outperformed the benchmark at a statistically significant level (99%). In addition, the benchmark provides a good measure by which to evaluate the manager.

Investment Manager:
Benchmark:

LINCOLN CAPITAL MANAGEMENT
R&T CUSTOM

	--PORTFOLIO--		--BENCHMARK--		--WILSHIRE 5000--		--VAM (PT/BK)--		--STYLE (BK/W5)--		--TOTAL (PT/W5)--	
	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return
80 Q1												
Q2												
Q3												
Q4												
81 Q1												
Q2												
Q3												
Q4												
82 Q1												
Q2												
Q3												
Q4												
83 Q1												
Q2												
Q3												
Q4												
84 Q1												
Q2												
Q3												
Q4												
85 Q1	6.94%		10.18%		10.35%		-2.95%		-0.15%		-3.09%	
Q2	6.50%		6.91%		7.47%		-0.39%		-0.52%		-0.91%	
Q3	-6.09%		-6.50%		-4.27%		0.43%		-2.33%		-1.90%	
Q4	19.38%	27.68%	17.79%	29.75%	16.77%	32.56%	1.35%	-1.59%	0.88%	-2.13%	2.24%	-3.68%
86 Q1	17.89%		14.16%		14.38%		3.27%		-0.19%		3.07%	
Q2	14.92%		7.40%		5.80%		7.00%		1.51%		8.62%	
Q3	-16.16%		-11.85%		-7.73%		-4.89%		-4.47%		-9.14%	
Q4	7.93%	22.59%	4.70%	13.16%	3.97%	16.09%	3.08%	8.33%	0.71%	-2.52%	3.81%	5.60%
87 Q1	25.10%		24.10%		21.17%		0.80%		2.42%		3.24%	
Q2	4.31%		3.68%		3.28%		0.62%		0.38%		1.00%	
Q3	6.82%		6.24%		6.22%		0.54%		0.03%		0.57%	
Q4	-20.52%	10.78%	-23.22%	4.96%	-23.05%	2.27%	3.50%	5.54%	-0.21%	2.63%	3.29%	8.32%
88 Q1	3.91%		5.19%		8.01%		-1.21%		-2.61%		-3.79%	
Q2	5.61%		6.18%		6.55%		-0.53%		-0.35%		-0.88%	
Q3	0.31%		0.18%		0.16%		0.13%		0.01%		0.14%	
Q4	-0.21%	9.86%	1.83%	13.93%	2.31%	17.94%	-2.00%	-3.58%	-0.48%	-3.40%	-2.46%	-6.86%
89 Q1	8.31%		6.20%		7.42%		1.98%		-1.13%		0.83%	
Q2	9.36%		9.40%		8.55%		-0.04%		0.79%		0.75%	
Q3	14.98%		10.93%		10.14%		3.65%		0.72%		4.40%	
Q4	2.00%	38.90%	-0.39%	28.39%	0.59%	29.17%	2.39%	8.18%	-0.97%	-0.61%	1.40%	7.53%
90 Q1	0.70%		-2.29%		-3.52%		3.06%		1.27%		4.37%	
Q2	13.58%		11.10%		5.48%		2.23%		5.33%		7.68%	
Q3	-16.20%		-17.96%		-15.21%		2.14%		-3.23%		-1.16%	
Q4	9.95%	5.38%	12.27%	-0.01%	8.73%	-6.18%	-2.06%	5.39%	3.25%	6.57%	1.12%	12.32%
91 Q1	20.85%		19.71%		16.46%		0.95%		2.79%		3.77%	
Q2	-0.64%		-0.78%		-0.32%		0.15%		-0.47%		-0.32%	
Q3	8.50%		6.89%		6.35%		1.51%		0.51%		2.02%	
Q4	15.25%	50.17%	12.76%	43.16%	8.70%	34.20%	2.21%	4.90%	3.73%	6.67%	6.03%	11.89%
92 Q1	-5.13%		-3.56%		-1.33%		-1.63%		-2.26%		-3.85%	
Q2	-1.02%		-2.48%		-0.12%		1.50%		-2.36%		-0.90%	
Latest:												
1 yr		17.42%		13.35%		13.93%		3.59%		-0.50%		3.07%
3 yrs		20.31%		14.14%		11.18%		5.41%		2.66%		8.22%
5 yrs		13.99%		9.94%		9.09%		3.68%		0.78%		4.49%
Cum 851Q-922Q		20.03%		15.95%		15.65%		3.51%		0.26%		3.79%
Std Dev		19.29%		19.45%		17.52%		4.02%		4.11%		5.79%

MANAGER FACT SHEET

Manager: Martingale Asset Management

Investment Philosophy

Martingale uses quantitative techniques to measure value. The firm focuses on stock selection, since they believe identifying undervalued or overvalued stocks is a better way to generate excess return than market timing or sector rotation.

Earnings, dividends, assets, growth and risk are a crucial element to their valuation model, since the firm believes these are the critical fundamentals that create investment return. During a market cycle, the price that investors are willing to pay for these factors shifts. In their investment process, they measure the current investor preferences and incorporate them into the stock selection process.

Portfolio Management

The firm's investment process starts with an extensive universe from which they extract fundamental information on assets, business segments, dividends, earnings, growth and variability of estimates for each company. Martingale then appraises investor preferences for these company fundamentals. They then combine the fundamental and investor preferences to calculate intrinsic values for over 1000 stocks. They compare these values with market prices to find undervalued securities to buy and overpriced stocks to sell.

Martingale builds "bias-free" portfolios whose excess return depends chiefly on diversified selection of cheap stocks. While emphasizing high return opportunities identified by their stock selection process, they rigorously control portfolios to maintain risk exposures similar to the client's chosen benchmark. This benchmark may be a market index or one designed by the client.

Ownership

Martingale is 78% owned by its employees.

Total equity assets managed \$367.6 million

Total number of accounts 10

Total equity assets managed for this discipline \$105.9 million

Total number of accounts for this discipline 3

Three largest tax-exempt accounts	United Food & Comm'l Workers	\$58.0 m
	International Paper Company	56.1 m
	State of Connecticut	\$24.5 m

QUANTITATIVE EVALUATION

Manager: Martingale Asset Management

Performance Series Description

Period Range: September 1987 - June 1992

Observations: 66

Benchmark: S&P 500 Index

Market: Wilshire 5000 Index

	<u>Annual ROR</u>	<u>Annual Std. Dev</u>	<u>Info Ratio (IR)</u>	<u>IR T-Stat</u>
Actual minus market (EXM)	-0.65974	2.28562	-0.28865	-0.63670
Bnmk minus market (MFT)	0.46266	2.13595	0.21660	0.47510
Actual minus bnmk (VAM)	-1.11723	2.28591	-0.48875	-1.08055

Residual Correlation Matrix

	EXM	MFT	VAM	
EXM	1.00	---	---	EXM: Market
MFT	.46712	1.00	---	MFT: Style/Benchmark
VAM	.56339	-.46734	1.00	VAM: Value added to benchmark

Staff Comments

The manager has underperformed the submitted benchmark but at a statistically insignificant level. The submitted benchmark provides a marginally better measure by which to evaluate the manager than a market index.

Investment Manager:
Benchmark:

MARTINGALE
S&P 500

	--PORTFOLIO--		--BENCHMARK--		--WILSHIRE 5000--		--VAM (PT/BK)--		--STYLE (BK/W5)--		--TOTAL (PT/W5)--	
	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return
80 Q1												
Q2												
Q3												
Q4												
81 Q1												
Q2												
Q3												
Q4												
82 Q1												
Q2												
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85 Q1												
Q2												
Q3												
Q4												
86 Q1												
Q2												
Q3												
Q4												
87 Q1												
Q2												
Q3												
Q4	-22.64%	-25.11%	-22.62%	-24.31%	-23.05%	-24.68%	-0.03%	-1.06%	0.57%	0.49%	0.54%	-0.58%
88 Q1	6.52%		5.82%		8.01%		0.66%		-2.03%		-1.38%	
Q2	7.75%		6.51%		6.55%		1.16%		-0.03%		1.12%	
Q3	0.22%		0.39%		0.16%		-0.16%		0.22%		0.06%	
Q4	2.96%	18.43%	3.10%	16.66%	2.31%	17.94%	-0.14%	1.52%	0.77%	-1.09%	0.63%	0.41%
89 Q1	8.47%		7.00%		7.42%		1.38%		-0.39%		0.98%	
Q2	7.34%		8.77%		8.55%		-1.32%		0.21%		-1.11%	
Q3	9.91%		10.60%		10.14%		-0.62%		0.42%		-0.20%	
Q4	0.30%	28.36%	1.99%	31.28%	0.59%	29.17%	-1.65%	-2.22%	1.39%	1.63%	-0.28%	-0.63%
90 Q1	-2.73%		-3.01%		-3.52%		0.30%		0.52%		0.82%	
Q2	4.42%		6.28%		5.48%		-1.75%		0.76%		-1.00%	
Q3	-15.61%		-13.77%		-15.21%		-2.13%		1.70%		-0.47%	
Q4	7.94%	-7.48%	8.95%	-3.17%	8.73%	-6.18%	-0.93%	-4.46%	0.20%	3.21%	-0.73%	-1.39%
91 Q1	16.01%		14.55%		16.46%		1.28%		-1.64%		-0.38%	
Q2	0.66%		-0.22%		-0.32%		0.89%		0.10%		0.99%	
Q3	5.65%		5.37%		6.35%		0.27%		-0.92%		-0.66%	
Q4	6.17%	31.00%	8.36%	30.51%	8.70%	34.20%	-2.02%	0.37%	-0.31%	-2.75%	-2.33%	-2.39%
92 Q1	-1.21%		-2.53%		-1.33%		1.35%		-1.22%		0.12%	
Q2	1.18%		1.97%		-0.12%		-0.78%		2.09%		1.30%	
Latest:												
1 yr		12.12%		13.48%		13.93%		-1.21%		-0.39%		-1.59%
3 yrs		10.11%		12.30%		11.18%		-1.95%		1.01%		-0.96%
5 yrs		7.34%		8.28%		7.78%		-0.87%		0.46%		-0.42%
Cum 874Q-922Q		6.87%		8.08%		7.58%		-1.12%		0.46%		-0.66%
Std Dev		18.39%		18.37%		18.72%		2.86%		2.14%		2.86%

MANAGER FACT SHEET

Manager: **Mitchell Hutchins Institutional Investors Inc.**
Uncommon Value Equity/ Small Cap Value

Investment Philosophy

The Uncommon Value Equity portfolios are designed to provide superior long-term returns through investment in carefully selected, high quality, small and medium capitalization stocks that are currently undervalued. The stocks selected have a very distinct investment profile: strong financials, substantial cash flow, conservative accounting, low debt-to-equity ratio and low institutional ownership. These issues also are relatively independent of cyclical changes in the economy, because their capital appreciation depends less on earnings increases than on revaluations based on inherent financial characteristics.

Research

MHII portfolio managers perform their own research internally because Uncommon Value stocks generally are not followed by Wall Street analysts. MHII also has full access to the PaineWebber Research Department with over 55 analysts.

Portfolio Management

The investment process begins with a universe of approximately 2,000 companies. Generally, these are companies in the \$10 million to \$1 billion market capitalization range. The universe is screened to identify approximately 300 companies with attractive debt-to-equity and price-to-book ratios. These companies are subjected to an intensive fundamental quality-factor analysis emphasizing strength of operating cash flow, asset productivity and quality management. Those companies that meet the quality criteria are then put through a price-factor analysis to determine if they are in an attractive price range.

Generally, a stock is held for three to four years before it fulfills their value objectives and a sell decision is made. Reasons to liquidate a position include reaching a predetermined target price; a merger or acquisition has occurred; it is subject to significant price gyrations caused by a large Wall Street sponsorship; or the fundamental criteria change, such as taking on excessive debt.

Ownership

Mitchell Hutchins Institutional Investors Inc. (MHII) is a wholly-owned subsidiary of Mitchell Hutchins Asset Management Inc. (MHAM), an independently operated subsidiary of PaineWebber Incorporated.

Total equity assets managed. \$1,769 million

Total number of accounts 473

Total equity assets managed for this discipline \$714 million

Total number of accounts for this discipline. 19

Three largest tax-exempt accounts:	Corporate Pension Plan	\$194 million
	Commingled Fund	\$125 million
	OK Teachers	\$68 million

QUANTITATIVE EVALUATION

Manager: Mitchell Hutchins

Performance Series Description

Period Range: January 1981 - June 1992
Observations: 138
Benchmark: Frank Russell 2000 with 5% cash
Market: Wilshire 5000 Index

	<u>Annual ROR</u>	<u>Annual Std. Dev</u>	<u>Info Ratio (IR)</u>	<u>IR T-Stat</u>
Actual minus market (EXM)	3.16335	8.58322	0.36855	1.23045
Bnmk minus market (MFT)	-2.31801	7.72644	-0.30001	-1.02936
Actual minus bnmk (VAM)	5.61144	7.86494	0.71347	2.35406

Residual Correlation Matrix

	EXM	MFT	VAM	
EXM	1.00	---	---	EXM: Market
MFT	.53916	1.00	---	MFT: Style/Benchmark
VAM	.56166	-.39399	1.00	VAM: Value added to benchmark

Staff Comments

The manager has outperformed the submitted benchmark at a statistically significant level (99%). The submitted benchmark provides a reasonable measure by which to evaluate the manager.

Investment Manager:
Benchmark:

MITCHELL HUTCHINS
FRANK RUSSELL + 5% CASH

	--PORTFOLIO--		--BENCHMARK--		--WILSHIRE 5000--		--VAM (PT/BK)--		--STYLE (BK/W5)--		--TOTAL (PT/W5)--	
	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return
80 Q1												
Q2												
Q3												
Q4												
81 Q1	10.48%		8.07%		1.82%		2.22%		6.15%		8.51%	
Q2	7.20%		3.74%		-0.19%		3.33%		3.93%		7.40%	
Q3	-10.65%		-16.52%		-12.13%		7.02%		-4.99%		1.68%	
Q4	6.86%	13.07%	9.81%	2.78%	7.79%	-3.75%	-2.69%	10.01%	1.88%	6.78%	-0.86%	17.48%
82 Q1	-1.98%		-8.70%		-9.19%		7.36%		0.53%		7.94%	
Q2	-0.69%		-1.19%		-1.13%		0.51%		-0.06%		-0.44%	
Q3	4.87%		10.13%		11.33%		-4.77%		-1.08%		-5.80%	
Q4	14.20%	16.59%	25.19%	24.38%	18.76%	18.71%	-8.78%	-6.27%	5.42%	4.78%	-3.84%	-1.79%
83 Q1	15.99%		16.65%		11.43%		-0.57%		4.69%		4.09%	
Q2	24.42%		19.35%		13.03%		4.25%		5.58%		10.07%	
Q3	-2.04%		-4.54%		-0.94%		2.62%		-3.63%		-1.11%	
Q4	0.02%	41.40%	-3.56%	28.17%	-1.04%	23.47%	3.72%	10.32%	-2.55%	3.81%	1.07%	14.53%
84 Q1	-2.40%		-6.25%		-4.20%		4.11%		-2.14%		1.88%	
Q2	-0.05%		-2.72%		-2.77%		2.74%		0.05%		2.79%	
Q3	4.76%		5.40%		9.19%		-0.61%		-3.47%		-4.06%	
Q4	2.22%	4.45%	-2.64%	-6.42%	1.32%	3.05%	4.99%	11.62%	-3.90%	-9.19%	0.89%	1.37%
85 Q1	9.77%		13.33%		10.35%		-3.14%		2.71%		-0.52%	
Q2	0.23%		3.47%		7.47%		-3.13%		-3.73%		-6.74%	
Q3	-1.04%		-4.04%		-4.27%		3.12%		0.24%		3.37%	
Q4	14.78%	24.96%	15.42%	29.89%	16.77%	32.56%	-0.56%	-9.79%	-1.15%	-2.02%	-1.70%	-5.73%
86 Q1	16.68%		13.52%		14.38%		2.78%		-0.75%		2.01%	
Q2	4.34%		4.69%		5.80%		-0.33%		-1.05%		-1.38%	
Q3	-4.18%		-11.57%		-7.73%		8.36%		-4.17%		3.84%	
Q4	5.58%	23.16%	0.66%	5.78%	3.97%	16.09%	4.89%	16.43%	-3.18%	-8.88%	1.55%	6.09%
87 Q1	13.99%		23.11%		21.17%		-7.41%		1.60%		-5.93%	
Q2	3.43%		-0.60%		3.28%		4.05%		-3.75%		0.15%	
Q3	7.92%		4.06%		6.22%		3.71%		-2.03%		1.61%	
Q4	-26.57%	-6.58%	-27.50%	-7.68%	-23.05%	2.27%	1.28%	1.19%	-5.78%	-9.73%	-4.57%	-8.65%
88 Q1	23.04%		18.15%		8.01%		4.14%		9.39%		13.92%	
Q2	13.54%		6.35%		6.55%		6.76%		-0.19%		6.56%	
Q3	1.01%		-0.80%		0.16%		1.82%		-0.96%		0.84%	
Q4	-3.33%	36.42%	-0.52%	24.00%	2.31%	17.94%	-2.82%	10.02%	-2.77%	5.13%	-5.51%	15.67%
89 Q1	9.97%		7.42%		7.42%		2.37%		0.01%		2.38%	
Q2	8.53%		6.16%		8.55%		2.23%		-2.19%		-0.02%	
Q3	1.17%		6.51%		10.14%		-5.02%		-3.29%		-8.14%	
Q4	-1.68%	18.72%	-4.60%	15.88%	0.59%	29.17%	3.06%	2.44%	-5.16%	-10.29%	-2.26%	-8.10%
90 Q1	1.63%		-1.98%		-3.52%		3.69%		1.59%		5.34%	
Q2	4.48%		3.77%		5.48%		0.69%		-1.62%		-0.94%	
Q3	-16.21%		-23.33%		-15.21%		9.28%		-9.57%		-1.18%	
Q4	7.80%	-4.09%	4.89%	-18.20%	8.73%	-6.18%	2.77%	17.25%	-3.53%	-12.81%	-0.85%	2.23%
91 Q1	23.46%		28.22%		16.46%		-3.71%		10.10%		6.02%	
Q2	1.29%		-1.39%		-0.32%		2.72%		-1.07%		1.62%	
Q3	3.55%		7.82%		6.35%		-3.96%		1.38%		-2.63%	
Q4	4.55%	35.40%	5.51%	43.83%	8.70%	34.20%	-0.91%	-5.86%	-2.94%	7.17%	-3.82%	0.89%
92 Q1	9.01%		7.36%		-1.33%		1.54%		8.81%		10.49%	
Q2	-3.59%		-6.44%		-0.12%		3.04%		-6.32%		-3.47%	
Latest:												
1 yr		13.78%		14.26%		13.93%		-0.42%		0.29%		-0.12%
3 yrs		10.72%		6.28%		11.18%		4.17%		-4.40%		-0.42%
5 yrs		11.86%		5.08%		9.09%		6.45%		-3.68%		2.54%
Cum 811Q-912Q		17.17%		10.95%		13.58%		5.61%		-2.32%		3.16%
Std Dev		16.15%		19.54%		16.52%		7.86%		7.73%		8.58%

MANAGER FACT SHEET

Manager: Oppenheimer Capital

Investment Philosophy

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

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

Portfolio Management

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

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

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

Ownership

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

Total equity assets managed. \$17,288 million

Total number of accounts 625

Total equity assets managed for this discipline. \$10,875 million

Total number of accounts for this discipline 260

Three largest tax-exempt accounts:

Arkansas Teachers Retirement System	\$1,138.1 m
Pennsylvania Public School Employees	953.9 m
California Public Employees Ret System	559.9 m

QUANTITATIVE EVALUATION

Manager: Oppenheimer

Performance Series Description

Period Range: Q1 1987 - Q2 1992
 Observations: 22
 Benchmark: Oppenheimer Benchmark with 15 % cash
 Market: Wilshire 5000 Index

	<u>Annual ROR</u>	<u>Annual Std. Dev</u>	<u>Info Ratio (IR)</u>	<u>IR T-Stat</u>
Actual minus market (EXM)	0.30124	4.40690	0.06836	0.16007
Bnmk minus market (MFT)	-0.35571	4.20102	-0.08467	-0.19893
Actual minus bnmk (VAM)	0.65930	2.77901	0.23724	0.55455

Residual Correlation Matrix

	EXM	MFT	VAM	
EXM	1.00	---	---	EXM: Market
MFT	.79257	1.00	---	MFT: Style/Benchmark
VAM	.38765	-.25486	1.00	VAM: Value added to benchmark

Staff Comments

The manager has outperformed the submitted benchmark at a statistically insignificant level. The submitted benchmark represents a good measure by which to evaluate the manager.

Investment Manager:

Benchmark:

OPPENHEIMER

BARRA CUSTOM

	--PORTFOLIO--		--BENCHMARK--		-WILSHIRE 500-		-VAM (PT/BK)-		-STYLE (BK/W5)-		-TOTAL (PT/W5)-		
	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	
80	Q1												
	Q2												
	Q3												
	Q4												
81	Q1												
	Q2												
	Q3												
	Q4												
82	Q1												
	Q2												
	Q3												
	Q4												
83	Q1												
	Q2												
	Q3												
	Q4												
84	Q1												
	Q2												
	Q3												
	Q4												
85	Q1												
	Q2												
	Q3												
	Q4												
86	Q1												
	Q2												
	Q3												
	Q4												
87	Q1	15.30%		17.43%		21.17%		-1.82%		-3.08%		-4.84%	
	Q2	4.10%		2.94%		3.28%		1.13%		-0.33%		0.80%	
	Q3	6.50%		5.59%		6.22%		0.86%		-0.58%		0.27%	
	Q4	-18.00%	4.82%	-18.06%	4.60%	-23.05%	2.27%	0.07%	0.21%	6.50%	2.27%	6.57%	2.49%
88	Q1	8.90%		7.42%		8.01%		1.38%		-0.55%		0.82%	
	Q2	4.90%		4.61%		6.55%		0.28%		-1.82%		-1.55%	
	Q3	2.20%		1.49%		0.16%		0.70%		1.32%		2.03%	
	Q4	2.50%	19.67%	2.30%	16.67%	2.31%	17.94%	0.19%	2.57%	-0.01%	-1.08%	0.18%	1.46%
89	Q1	6.50%		6.95%		7.42%		-0.42%		-0.44%		-0.85%	
	Q2	6.00%		8.13%		8.55%		-1.97%		-0.38%		-2.35%	
	Q3	9.00%		9.10%		10.14%		-0.09%		-0.94%		-1.03%	
	Q4	2.40%	26.00%	1.22%	27.69%	0.59%	29.17%	1.17%	-1.32%	0.62%	-1.15%	1.80%	-2.45%
90	Q1	-2.60%		-2.86%		-3.52%		0.27%		0.68%		0.95%	
	Q2	5.70%		4.70%		5.48%		0.95%		-0.73%		0.21%	
	Q3	-15.20%		-12.07%		-15.21%		-3.55%		3.70%		0.02%	
	Q4	9.40%	-4.49%	8.58%	-2.91%	8.73%	-6.18%	0.76%	-1.63%	-0.14%	3.49%	0.62%	1.80%
91	Q1	14.50%		12.37%		16.46%		1.89%		-3.51%		-1.68%	
	Q2	0.00%		0.37%		-0.32%		-0.37%		0.69%		0.32%	
	Q3	4.00%		4.04%		6.35%		-0.03%		-2.18%		-2.21%	
	Q4	7.30%	27.77%	7.33%	25.93%	8.70%	34.20%	-0.02%	1.46%	-1.27%	-6.17%	-1.29%	-4.79%
92	Q1	1.30%		-1.71%		-1.33%		3.07%		-0.39%		2.67%	
	Q2	0.60%		1.23%		-0.12%		-0.63%		1.36%		0.72%	
Latest:													
	1 yr		13.72%		11.11%		13.93%		2.37%		-2.49%		-0.18%
	3 yrs		11.54%		10.33%		11.18%		1.10%		-0.76%		0.33%
	5 yrs		10.37%		9.41%		9.09%		0.87%		0.30%		1.17%
	Cum 871Q-922Q		13.07%		12.33%		12.73%		0.66%		-0.36%		0.30%
	Std Dev		16.01%		15.36%		19.26%		2.78%		4.20%		4.41%

MANAGER FACT SHEET

Manager: United Capital Management

Investment Philosophy

United Capital Management (UCM) uses a contrarian investment approach. A basic premise of their philosophy is that security prices change more than justified by the companies' fundamentals. Consensus thinking often results in severe undervaluation of securities whose immediate problems are obvious but whose longer-term prospects are viewed too negatively. This consensus pessimism creates investment opportunity

To achieve superior investment results, UCM focuses on identifying and capitalizing on discrepancies between the real value of a security and its market price. UCM think of value in terms of recovery earnings and potential share price over a three year investment time horizon.

Research

UCM's security analysis is fundamentally based. When evaluating a company, analysts first emphasize price-related factors and then they evaluate a company's fundamentals. Often depressed price-related factors are accompanied by depressed fundamentals. The analyst then projects the company's earnings power over a three year time horizon, the valuation that should be accorded the security in a normalized environment and the target price for the stock. Analysts use financial data from the company and Wall Street research reports.

Portfolio Management

The primary factor that will trigger purchase by UCM is the identification of significantly price depressed issues which have major rebound potential over a three year time horizon. Stocks must have price appreciation potential of at least 75-100% before they can be included in the portfolio. Firm sell targets are established at the time of purchase and are never raised (but can be lowered). A stock is sold when it reaches this target.

UCM is managed by a committee consisting of its six investment professionals. Investment policies and strategies are implemented uniformly in all portfolios. Portfolio managers may deviate to a limited degree from the group's decisions in order to accommodate risk preferences and/or cash flow requirements of a client. There are two key areas where portfolio managers have no latitude. They can only purchase stocks that have been reviewed and approved by the committee of investment professionals and they must sell all holdings in a stock which has reached its target price.

Industry and sector weightings are by-products of individual stock selection and portfolios may have significant concentration in certain industries or economic sectors.

Ownership

UCM is a division of Norwest Bank Denver.

Total equity assets managed. \$2,897.9 million

Total number of accounts 20

Total equity assets managed for this discipline: \$2,897.9 million

Total number of accounts for this discipline. 20

Three largest tax-exempt accounts	AT&T	over \$200 million
	General Motors	over \$200 million
	State of Washington	over \$200 million

QUANTITATIVE EVALUATION

Manager: United Capital Management

Performance Series Description

Period Range: Q1 1980 - Q2 1992

Observations: 50

Benchmark: S&P 500 Index

Market: Wilshire 5000 Index

	<u>Annual ROR</u>	<u>Annual Std. Dev</u>	<u>Info Ratio (IR)</u>	<u>IR T-Stat</u>
Actual minus market (EXM)	.73305	9.95829	.07361	.25931
Bnmk minus market (MFT)	.66430	2.20015	.30193	1.06397
Actual minus bnmk (VAM)	.06830	9.86919	.00692	.02446

Residual Correlation Matrix

	EXM	MFT	VAM	
EXM	1.00	---	---	EXM: Market
MFT	.15078	1.00	---	MFT: Style/Benchmark
VAM	.97541	-.07079	1.00	VAM: Value added to benchmark

Staff Comments

The manager's performance has basically matched its submitted benchmark. However, the submitted benchmark provides a reasonably poor measure by which to evaluate the manager.

Investment Manager:
Benchmark:

UNITED CAPITAL MANAGEMENT
S&P 500

	PORTFOLIO		BENCHMARK		WILSHIRE 5000		VAM (PT/BK)		STYLE (BK/W5)		TOTAL (PT/W5)		
	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	
80	Q1	-3.18%	-4.08%		-5.63%		0.93%		1.65%		2.60%		
	Q2	10.34%	13.41%		15.02%		-2.71%		-1.40%		-4.07%		
	Q3	8.93%	11.20%		12.83%		-2.04%		-1.44%		-3.46%		
	Q4	1.15%	17.71%	9.44%	32.40%	9.15%	33.67%	-7.58%	-11.09%	0.27%	-0.95%	-7.33%	-11.94%
81	Q1	14.83%		1.38%		1.82%		13.27%		-0.43%		12.78%	
	Q2	2.12%		-2.32%		-0.19%		4.54%		-2.13%		2.31%	
	Q3	-12.65%		-10.24%		-12.13%		-2.68%		2.15%		-0.59%	
	Q4	5.35%	7.91%	7.01%	-4.88%	7.79%	-3.75%	-1.55%	13.45%	-0.73%	-1.18%	-2.26%	12.11%
82	Q1	-0.55%		-7.23%		-9.19%		7.21%		2.15%		9.51%	
	Q2	3.18%		-0.57%		-1.13%		3.78%		0.56%		4.36%	
	Q3	10.31%		11.46%		11.33%		-1.03%		0.12%		-0.91%	
	Q4	30.42%	47.62%	18.33%	21.65%	18.76%	18.71%	10.21%	21.35%	-0.36%	2.48%	9.82%	24.36%
83	Q1	11.53%		10.03%		11.43%		1.36%		-1.25%		0.09%	
	Q2	11.77%		11.01%		13.03%		0.68%		-1.79%		-1.12%	
	Q3	1.96%		-0.10%		-0.94%		2.06%		0.85%		2.93%	
	Q4	1.08%	28.47%	0.24%	22.33%	-1.04%	23.47%	0.83%	5.02%	1.30%	-0.92%	2.14%	4.06%
84	Q1	-4.94%		-2.40%		-4.20%		-2.61%		1.88%		-0.77%	
	Q2	-7.72%		-2.54%		-2.77%		-5.31%		0.23%		-5.09%	
	Q3	7.71%		9.68%		9.19%		-1.80%		0.45%		-1.36%	
	Q4	2.77%	-2.90%	1.78%	6.19%	1.32%	3.05%	0.98%	-8.56%	0.46%	3.05%	1.44%	-5.77%
85	Q1	7.38%		9.20%		10.35%		-1.67%		-1.04%		-2.69%	
	Q2	4.98%		7.29%		7.47%		-2.15%		-0.17%		-2.32%	
	Q3	1.18%		-4.11%		-4.27%		5.52%		0.17%		5.69%	
	Q4	12.91%	28.78%	17.24%	31.72%	16.77%	32.56%	-3.70%	-2.23%	0.41%	-0.64%	-3.30%	-2.85%
86	Q1	19.54%		14.04%		14.38%		4.82%		-0.29%		4.51%	
	Q2	-8.44%		5.89%		5.80%		-13.53%		0.09%		-13.46%	
	Q3	-6.13%		-6.96%		-7.73%		0.89%		0.83%		1.73%	
	Q4	-0.02%	2.72%	5.36%	18.38%	3.97%	16.09%	-5.11%	-13.23%	1.33%	1.97%	-3.84%	-11.52%
87	Q1	25.54%		21.32%		21.17%		3.48%		0.12%		3.61%	
	Q2	7.31%		5.12%		3.28%		2.08%		1.79%		3.90%	
	Q3	16.72%		6.61%		6.22%		9.48%		0.37%		9.89%	
	Q4	-17.79%	29.27%	-22.62%	5.21%	-23.05%	2.27%	6.24%	22.86%	0.57%	2.87%	6.84%	26.39%
88	Q1	8.82%		5.82%		8.01%		2.83%		-2.03%		0.75%	
	Q2	12.82%		6.51%		6.55%		5.92%		-0.03%		5.88%	
	Q3	-2.43%		0.39%		0.16%		-2.81%		0.22%		-2.59%	
	Q4	4.45%	25.12%	3.10%	16.66%	2.31%	17.94%	1.31%	7.25%	0.77%	-1.09%	2.09%	6.08%
89	Q1	7.89%		7.00%		7.42%		0.83%		-0.39%		0.44%	
	Q2	6.25%		8.77%		8.55%		-2.32%		0.21%		-2.12%	
	Q3	6.46%		10.60%		10.14%		-3.74%		0.42%		-3.34%	
	Q4	-1.20%	20.57%	1.99%	31.28%	0.59%	29.17%	-3.12%	-8.15%	1.39%	1.63%	-1.78%	-6.66%
90	Q1	1.98%		-3.01%		-3.52%		5.15%		0.52%		5.70%	
	Q2	-4.55%		6.28%		5.48%		-10.19%		0.76%		-9.51%	
	Q3	-15.19%		-13.77%		-15.21%		-1.64%		1.70%		0.03%	
	Q4	6.32%	-12.23%	8.95%	-3.17%	8.73%	-6.18%	-2.41%	-9.36%	0.20%	3.21%	-2.22%	-6.45%
91	Q1	13.51%		14.55%		16.46%		-0.91%		-1.64%		-2.53%	
	Q2	-2.30%		-0.22%		-0.32%		-2.08%		0.10%		-1.99%	
	Q3	0.45%		5.37%		6.35%		-4.67%		-0.92%		-5.55%	
	Q4	4.34%	16.23%	8.36%	30.51%	8.70%	34.20%	-3.71%	-10.94%	-0.31%	-2.75%	-4.01%	-13.39%
92	Q1	-0.02%		-2.53%		-1.33%		2.58%		-1.22%		1.33%	
	Q2	2.91%		1.97%		-0.12%		0.92%		2.09%		3.04%	
Latest:													
	1 yr		7.84%		13.48%		13.93%		-4.97%		-0.39%		-5.34%
	3 yrs		3.35%		12.30%		11.18%		-7.97%		1.01%		-7.04%
	5 yrs		8.73%		9.68%		9.09%		-0.86%		0.54%		-0.33%
	Cum 811Q-912Q		15.91%		15.84%		15.07%		0.07%		0.66%		0.73%
	Std Dev		17.78%		16.49%		17.58%		9.87%		2.20%		9.96%

MANAGER FACT SHEET

Manager: Weiss, Peck, and Greer
Dynamic Growth

Investment Philosophy

Weiss, Peck, and Greer's dynamic growth process concentrates on smaller 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. Weiss, Peck, and Greer also believes that superior stock selection can be achieved through in-depth fundamental company research.

Research

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

Portfolio Management

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

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

Ownership

75.1% of the firm is owned by the general partners. The minority ownership is held by Lloyds America Securities Corporation.

Total equity assets managed. \$2.8 billion

Total number of accounts: 983

Total equity assets managed for this discipline \$1.0 billion

Total number of accounts for this discipline. 10

Three largest tax-exempt accounts:

GTE	\$243.6 million
L.A. County Employees	\$189.4 million
James Irvine Foundation	\$50.6 million

QUANTITATIVE EVALUATION

Manager: Weiss Peck & Greer Tudor Discipline

Performance Series Description

Period Range: January 1980 - June 1992

Observations: 150

Benchmark: WPG Tudor Benchmark

Market: Wilshire 5000 Index

	<u>Annual ROR</u>	<u>Annual Std Dev</u>	<u>Info Ratio (IR)</u>	<u>IR T-Stat</u>
Actual minus market (EXM)	1.93616	9.55765	0.20258	0.70937
Bnmk minus market (MFT)	-2.02572	7.44231	-0.27219	-0.97222
Actual minus bnmk (VAM)	4.04380	7.09214	0.57018	1.97620

Residual Correlation Matrix

	EXM	MFT	VAM	
EXM	1.00	---	---	EXM: Market
MFT	.67789	1.00	---	MFT: Style/Benchmark
VAM	.63628	-.13582	1.00	VAM: Value added to benchmark

Staff Comments

The manager has outperformed the submitted benchmark at a statistically significant level (95%). In addition, the submitted benchmark represents a good measure by which to evaluate the manager.

Investment Manager:

WEISS, PECK & GREER (NET OF FEES)

Benchmark:

BARRA BENCHMARK

	PORTFOLIO		BENCHMARK		WILSHIRE 5000		VAM (PT/BK)		STYLE (BK/W5)		TOTAL (PT/W5)	
	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return	Qrtly Return	Annual Return
80 Q1	-4.87%		-10.62%		-5.63%		6.43%		-5.29%		0.80%	
Q2	9.68%		19.35%		15.02%		-8.10%		3.77%		-4.64%	
Q3	15.43%		21.55%		12.83%		-5.04%		7.73%		2.30%	
Q4	18.80%	43.07%	9.37%	41.81%	9.15%	33.67%	8.62%	0.89%	0.20%	6.09%	8.84%	7.03%
81 Q1	5.70%		4.09%		1.82%		1.54%		2.23%		3.81%	
Q2	3.84%		0.71%		-0.19%		3.11%		0.90%		4.04%	
Q3	-12.45%		-16.38%		-12.13%		4.69%		-4.83%		-0.36%	
Q4	13.15%	8.73%	9.55%	-3.97%	7.79%	-3.75%	3.29%	13.23%	1.63%	-0.23%	4.98%	12.97%
82 Q1	-5.90%		-13.39%		-9.19%		8.64%		-4.62%		3.62%	
Q2	5.76%		-0.88%		-1.13%		6.69%		0.25%		6.97%	
Q3	11.08%		11.32%		11.33%		-0.21%		-0.01%		-0.22%	
Q4	31.53%	45.41%	23.64%	18.16%	18.76%	18.71%	6.38%	23.06%	4.11%	-0.46%	10.75%	22.49%
83 Q1	17.97%		14.28%		11.43%		3.22%		2.56%		5.87%	
Q2	23.95%		17.30%		13.03%		5.67%		3.78%		9.66%	
Q3	-6.40%		-4.90%		-0.94%		-1.58%		-3.99%		-5.51%	
Q4	-6.20%	28.38%	-3.71%	22.77%	-1.04%	23.47%	-2.58%	4.57%	-2.69%	-0.57%	-5.21%	3.98%
84 Q1	-11.03%		-7.38%		-4.20%		-3.94%		-3.32%		-7.12%	
Q2	-2.45%		-1.54%		-2.77%		-0.92%		1.26%		0.33%	
Q3	4.47%		6.68%		9.19%		-2.07%		-2.30%		-4.32%	
Q4	2.20%	-7.33%	-1.28%	-3.96%	1.32%	3.05%	3.52%	-3.51%	2.56%	-6.80%	0.87%	-10.07%
85 Q1	10.78%		11.44%		10.35%		-0.60%		0.99%		0.39%	
Q2	6.02%		4.42%		7.47%		1.54%		-2.84%		-1.35%	
Q3	-5.56%		-5.95%		-4.27%		0.41%		-1.75%		-1.35%	
Q4	18.42%	31.35%	18.00%	29.15%	16.77%	32.56%	0.35%	1.70%	1.06%	-2.57%	1.41%	-0.92%
86 Q1	15.15%		15.14%		14.38%		0.01%		0.67%		0.68%	
Q2	6.67%		6.45%		5.80%		0.21%		0.61%		0.83%	
Q3	-11.20%		-12.72%		-7.73%		1.74%		-5.41%		-3.76%	
Q4	2.95%	12.30%	3.60%	10.83%	3.97%	16.09%	-0.62%	1.33%	-0.36%	-4.54%	-0.98%	-3.27%
87 Q1	29.51%		23.20%		21.17%		5.13%		1.67%		6.88%	
Q2	0.19%		0.45%		3.28%		-0.25%		-2.74%		-2.99%	
Q3	6.34%		5.41%		6.22%		0.88%		-0.76%		0.12%	
Q4	-26.73%	1.10%	-26.44%	-4.04%	-23.05%	2.27%	-0.40%	5.36%	-4.39%	-6.17%	-4.77%	-1.14%
88 Q1	8.82%		13.02%		8.01%		-3.71%		4.64%		0.75%	
Q2	6.17%		7.21%		6.55%		-0.97%		0.62%		-0.36%	
Q3	-2.69%		-3.92%		0.16%		1.29%		-4.08%		-2.84%	
Q4	2.34%	15.06%	1.05%	17.64%	2.31%	17.94%	1.27%	-2.19%	-1.24%	-0.26%	0.02%	-2.44%
89 Q1	9.49%		7.20%		7.42%		2.13%		-0.20%		1.93%	
Q2	5.60%		7.58%		8.55%		-1.84%		-0.89%		-2.71%	
Q3	11.78%		10.23%		10.14%		1.40%		0.09%		1.49%	
Q4	-3.21%	25.09%	-5.00%	20.77%	0.59%	29.17%	1.89%	3.58%	-5.56%	-6.50%	-3.77%	-3.16%
90 Q1	2.62%		-1.27%		-3.52%		3.94%		-2.33%		6.35%	
Q2	6.89%		5.89%		5.48%		0.95%		0.39%		1.34%	
Q3	-14.35%		-26.59%		-15.21%		16.68%		-13.42%		1.02%	
Q4	1.02%	-5.09%	9.43%	-16.02%	8.73%	-6.18%	-7.69%	13.01%	0.65%	-10.49%	-7.09%	1.16%
91 Q1	22.67%		30.26%		16.46%		-5.83%		11.85%		5.33%	
Q2	-4.17%		-2.48%		-0.32%		-1.73%		-2.16%		-3.86%	
Q3	11.24%		10.98%		6.35%		0.23%		4.36%		4.60%	
Q4	11.34%	45.60%	9.90%	54.94%	8.70%	34.20%	1.31%	-6.03%	1.10%	15.45%	2.42%	8.49%
92 Q1	1.99%		0.67%		-1.33%		1.31%		2.03%		3.37%	
Q2	-9.75%		-7.70%		-0.12%		-2.23%		-7.58%		-9.64%	
Latest:												
1 yr		14.00%		13.34%		13.93%		0.58%		-0.52%		0.06%
3 yrs		11.22%		8.18%		11.18%		2.81%		-2.70%		0.04%
5 yrs		7.36%		5.90%		9.09%		1.38%		-2.92%		-1.58%
Cum 801Q-922Q		17.30%		12.74%		15.07%		4.04%		-2.03%		1.93%
Std Dev		22.07%		22.00%		16.88%		7.92%		7.44%		9.56%

**STATE BOARD
OF INVESTMENT**

**Stock
Manager
Evaluation
Reports**

Second Quarter, 1992

STOCK MANAGERS

Second Quarter 1992

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

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

Staff Recommendations:

Staff recommends the following actions concerning manager status:

- Conduct an in-depth review of Waddell & Reed.

Current Managers	Total Market Value 6/30/92 (Millions)	Quarter Ending 6/30/92		Year Ending 6/30/92		Annualized Five Years Ending 6/30/92		Annualized Since Inception***		% of Stock Segment 6/30/92 Basic Funds
		Actual	Bmrk	Actual	Bmrk	Actual	Bmrk	Actual	Bmrk	
Alliance	\$566	-0.8%	-1.2%	22.9%	11.6%	13.1%	7.1%	17.9%	11.9%	10.8%
Forstmann	294	-5.1	-0.9	10.1	12.3	7.4	8.4	12.7	11.7	5.6
Franklin	167	0.3	0.4	13.6	14.5			10.8	11.2	3.2
GeoCapital	186	-9.4	-9.7	21.0	10.5			16.6	9.6	3.6
IDS	225	0.1	1.3	16.3	16.9	8.2	9.0	14.5	13.9	4.3
Independence	191	2.9	2.4					2.3	2.0	3.7
Lieber & Co.	162	-7.5	-3.9	6.5	15.1	5.4	6.2	10.7	10.4	3.1
Lynch & Mayer	183	-1.9	-2.0					-1.7	-4.0	3.5
Waddell & Reed	210	-3.1	-3.4	12.4	11.2	7.3	6.9	11.0	10.6	4.0
Wilshire Assoc.	3,035	0.9	1.0	14.1	14.4	8.9	9.2	13.9	14.1	58.2
Current Aggregate*		-0.6	-0.1	14.9	13.8	9.2	8.7	14.2	13.7	100.0
Historical Aggregate**				14.3	13.7	8.6	8.7	13.5	13.7	
Wilshire 5000 Adjusted****		0.0		13.6		8.6		13.7		
Wilshire 5000		-0.1		13.9		9.1		14.1		

* Includes performance of current managers only.

** Includes performance of terminated managers.

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

**** Adjusted for liquor and tobacco restriction.

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

ALLIANCE CAPITAL MANAGEMENT

PORTFOLIO MANAGER: Jack Koltos

ASSETS UNDER MANAGEMENT: \$566,185,268

INVESTMENT PHILOSOPHY

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

QUALITATIVE EVALUATION
(Reported By Exception)

Exceptional strengths are:

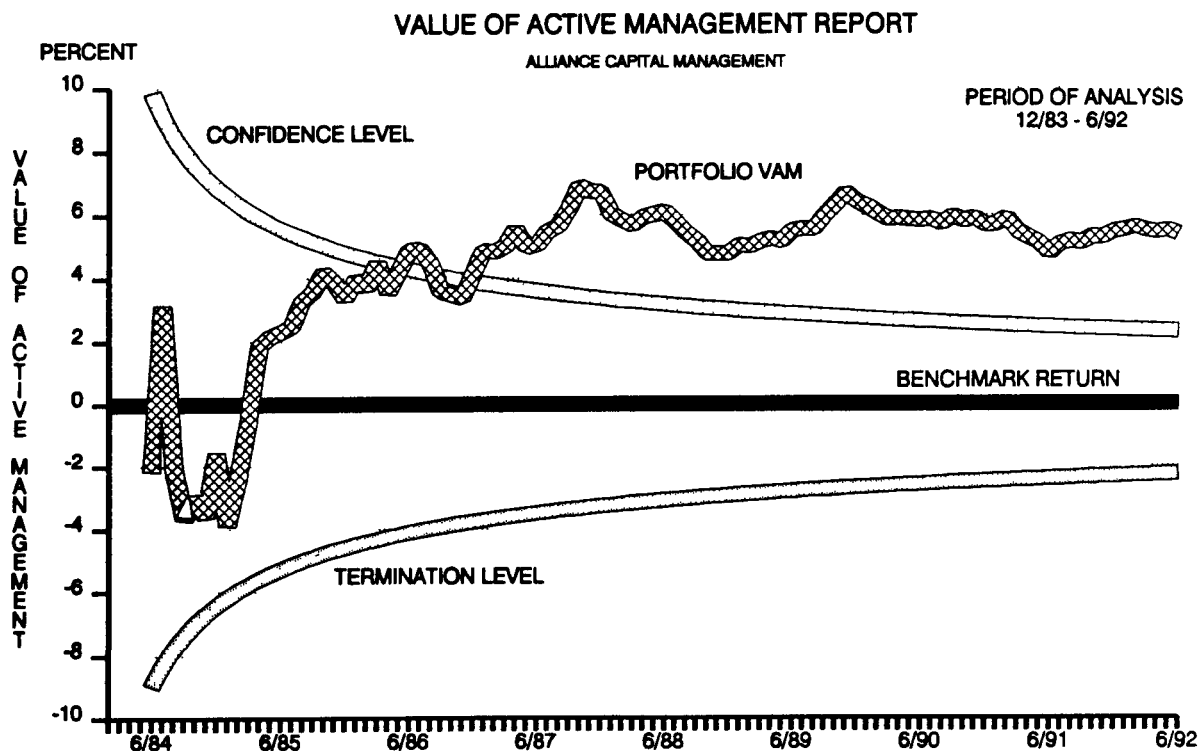
- Highly successful and experienced professionals.
- Organizational continuity and strong leadership.
- Well-acquainted with needs of large clients.
- Investment style consistently and successfully applied over a variety of market environments.

QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 1/1/84
Actual Return	-0.8%	22.9%	13.1%	17.9%
Benchmark	-1.2	11.6	7.1	11.9

STAFF RECOMMENDATIONS

No action required.



FORSTMANN LEFF ASSOCIATES

PORTFOLIO MANAGER: Joel Leff

ASSETS UNDER MANAGEMENT: \$294,015,958

INVESTMENT PHILOSOPHY

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

**QUALITATIVE EVALUATION
(Reported By Exception)**

Current concerns are:

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

Exceptional strengths are:

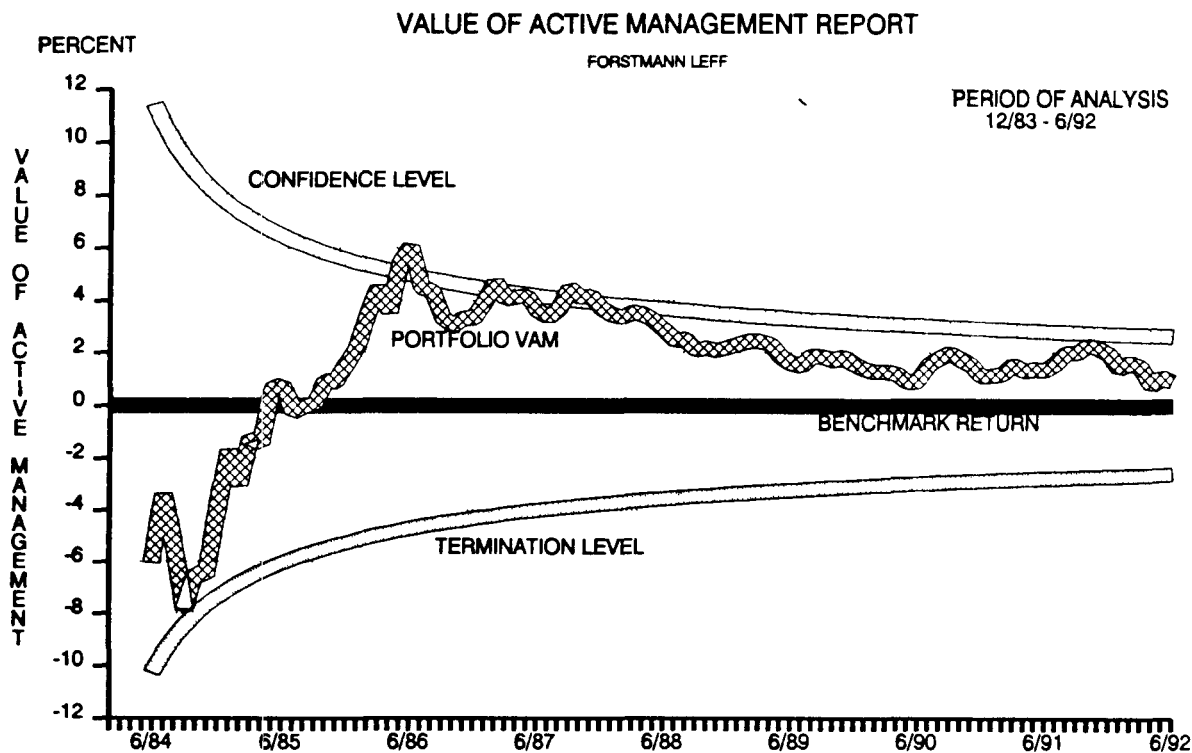
- Highly successful and experienced professionals.
- Investment style consistently and successfully applied over a variety of market environments.
- Well-acquainted with needs of large clients.

QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 1/1/84
Actual Return	-5.1%	10.1%	7.4%	12.7%
Benchmark	-0.9	12.3	8.4	11.7

STAFF RECOMMENDATIONS

No action required.



FRANKLIN PORTFOLIO ASSOCIATES

PORTFOLIO MANAGER: John Nagorniak

ASSETS UNDER MANAGEMENT: \$166,653,836

INVESTMENT PHILOSOPHY

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

QUALITATIVE EVALUATION

(Reported by Exception)

Exceptional strengths are:

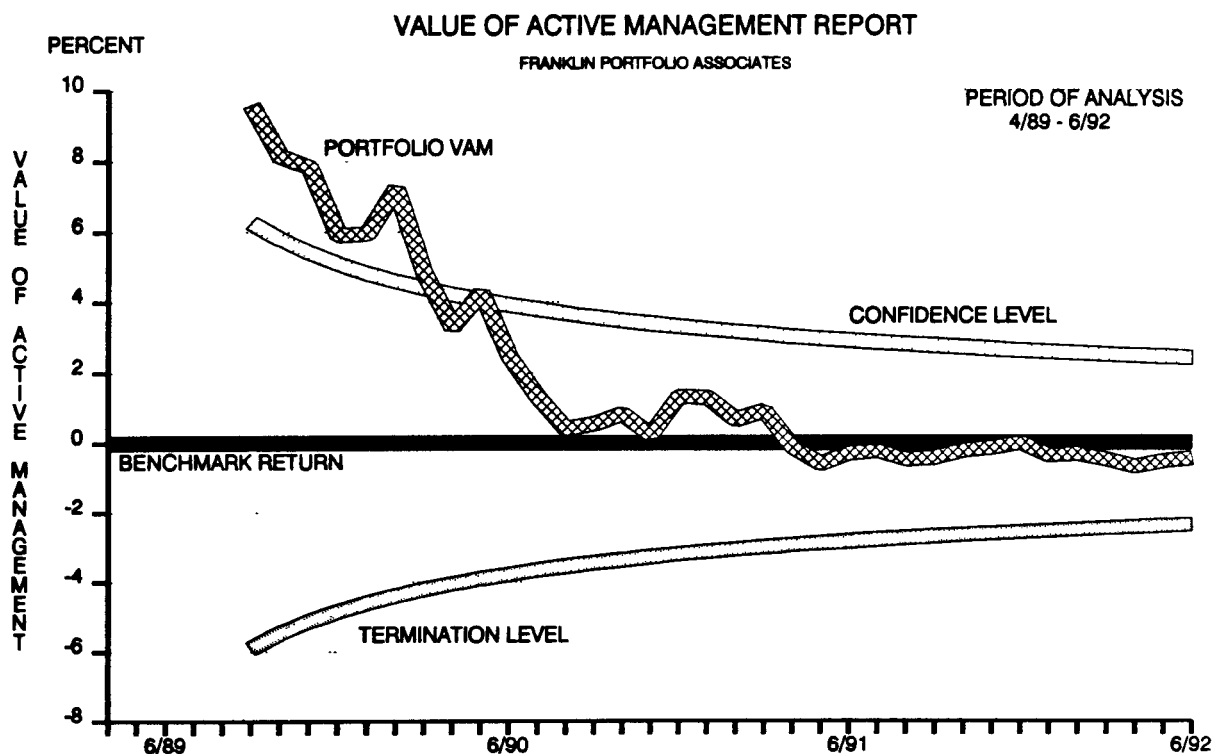
- Familiar with the needs of large institutional clients.
- Firm's investment approach has been consistently applied over a number of market cycles.

QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 4/1/89
Actual Return	0.3%	13.6%	N.A.	10.8%
Benchmark	0.4	14.5	N.A.	11.2

STAFF RECOMMENDATIONS

No action required.



GEOCAPITAL CORP.

PORTFOLIO MANAGER: Barry Fingerhut

ASSETS UNDER MANAGEMENT: \$185,870,419

INVESTMENT PHILOSOPHY

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

**QUALITATIVE EVALUATION
(Reported by Exception)**

Exceptional strengths are:

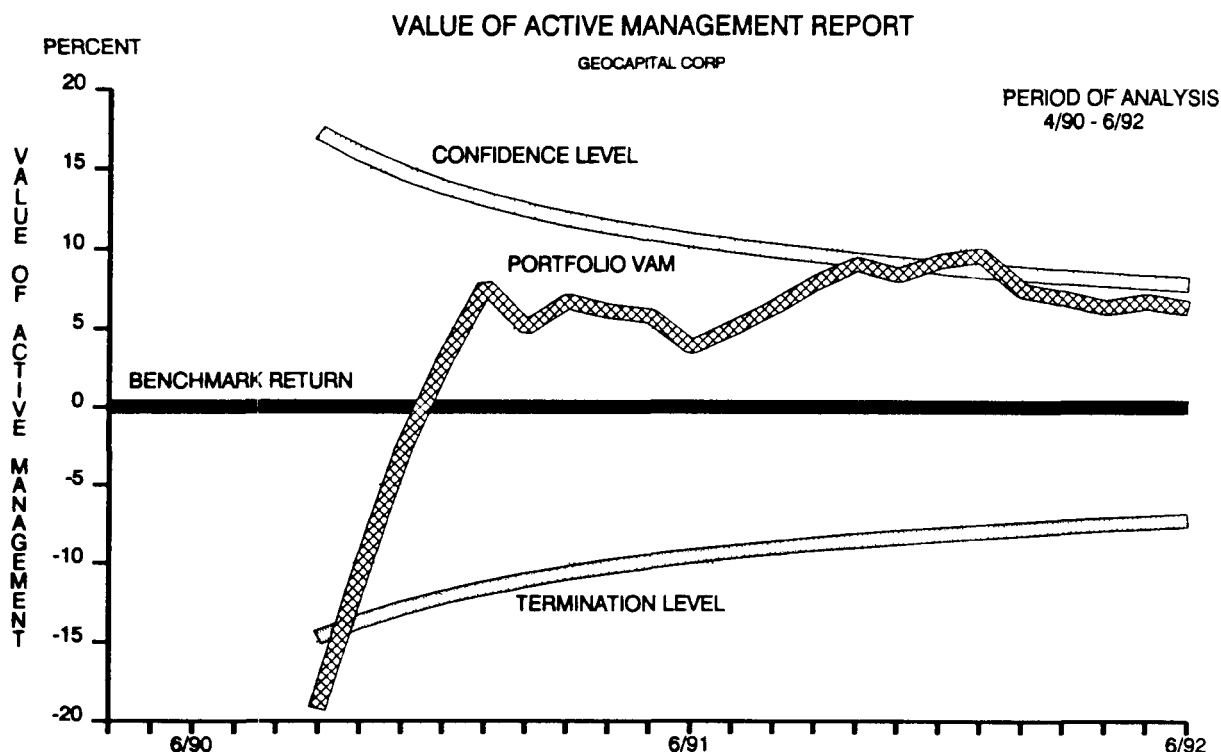
- Investment style consistently and successfully applied over a variety of market environments.
- Attractive, unique investment approach.
- Highly successful and experienced professionals.

QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 4/1/90
Actual Return	-9.4%	21.0%	N.A.	16.6%
Benchmark	-9.7	10.5	N.A.	9.6

STAFF RECOMMENDATIONS

No action required.



IDS ADVISORY

PORTFOLIO MANAGER: Pete Anderson

ASSETS UNDER MANAGEMENT: \$225,253,470

INVESTMENT PHILOSOPHY

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

QUALITATIVE EVALUATION
(Reported By Exception)

Current concerns are:

- Manager is currently addressing specific benchmark issues.

Exceptional strengths are:

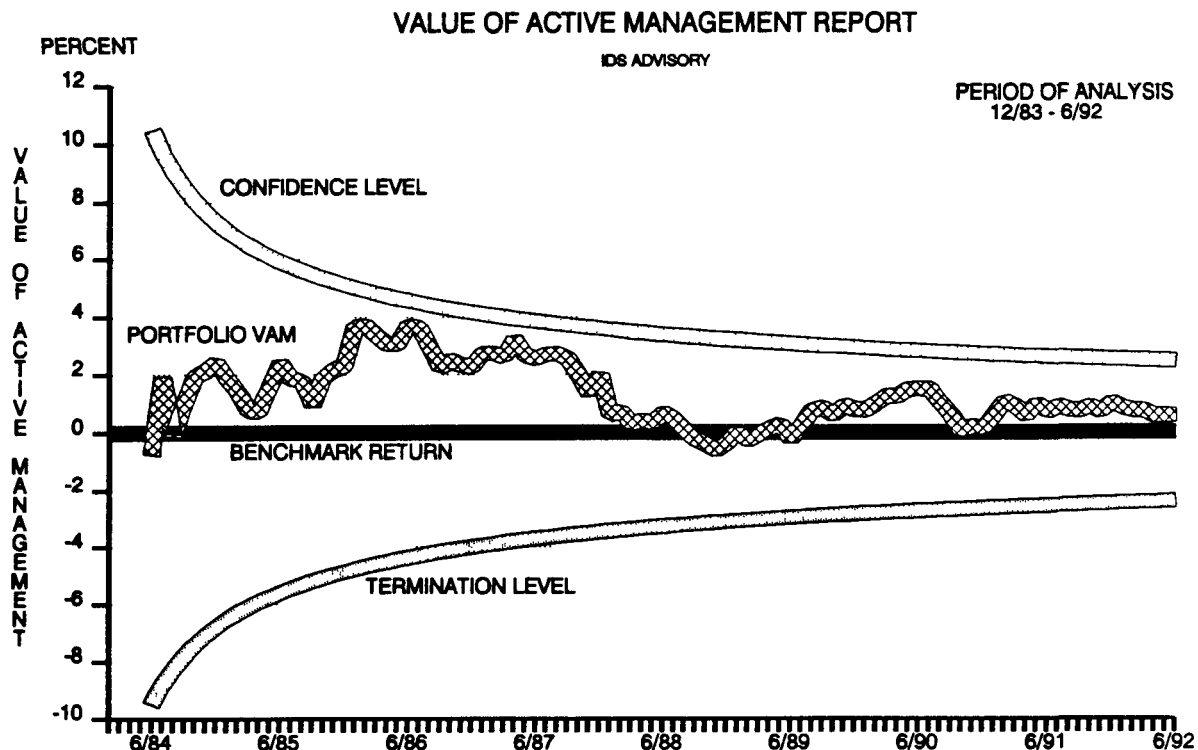
- Investment style consistently and successfully applied over a variety of market environments.

QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 1/1/84
Actual Return	0.1%	16.3%	8.2%	14.5%
Benchmark	1.3	16.9	9.0	13.9

STAFF RECOMMENDATIONS

No action required.



INDEPENDENCE ASSOCIATES

PORTFOLIO MANAGER: Bill Fletcher

ASSETS UNDER MANAGEMENT: \$190,752,517

INVESTMENT PHILOSOPHY

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

QUALITATIVE EVALUATION

(Reported By Exception)

Exceptional strengths are:

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

QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 2/1/92
Actual Return	2.9%	N.A.	N.A.	2.3%
Benchmark	2.4	N.A.	N.A.	2.0

STAFF RECOMMENDATIONS

No action required.

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

LIEBER & COMPANY

PORTFOLIO MANAGER: Stephen Lieber, Nola Falcone

ASSETS UNDER MANAGEMENT: \$161,892,742

INVESTMENT PHILOSOPHY

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

QUALITATIVE EVALUATION
(Reported by Exception)

Exceptional strengths are:

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

Current concerns are:

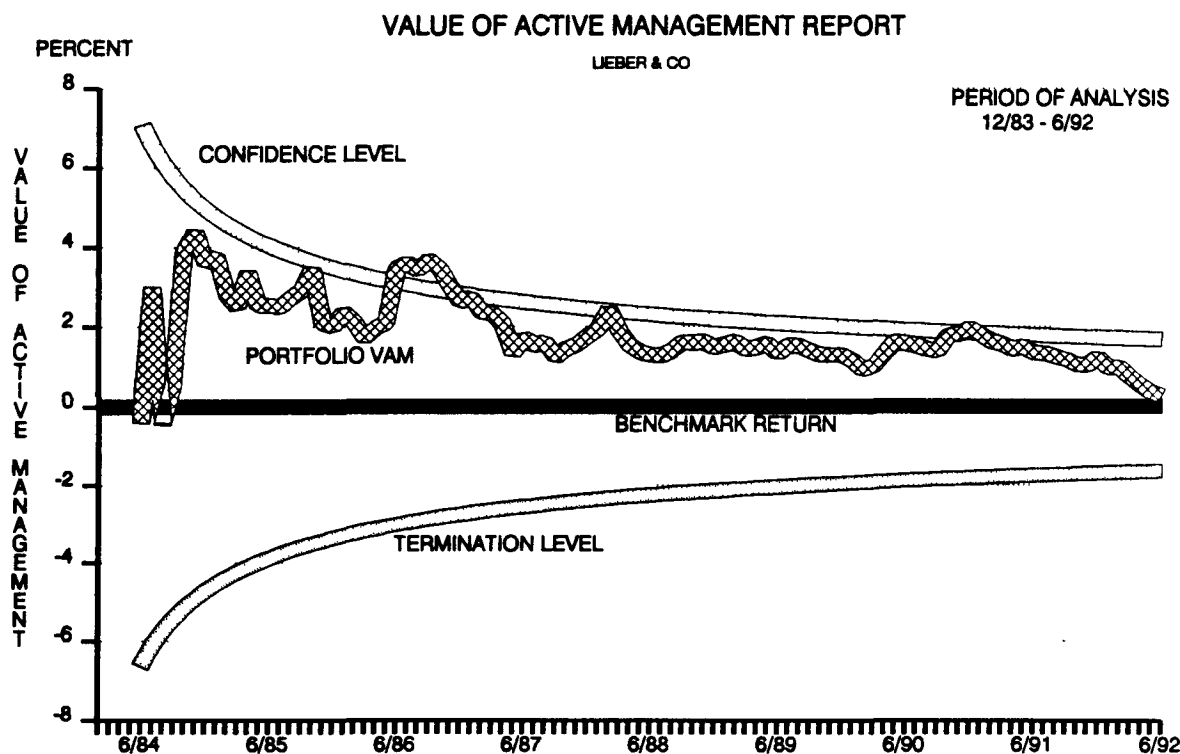
- Recent performance has lagged due to poor stock selection.

QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 1/1/84
Actual Return	-7.5%	6.5%	5.4%	10.7%
Benchmark	-3.9	15.1	6.2	10.4

STAFF RECOMMENDATIONS

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



LYNCH & MAYER

PORTFOLIO MANAGER: Eldon Mayer

ASSETS UNDER MANAGEMENT: \$183,425,304

INVESTMENT PHILOSOPHY

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

QUALITATIVE EVALUATION

(Reported by Exception)

Exceptional strengths are:

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

QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 2/1/92
Actual Return	-1.9%	N.A.	N.A.	-1.7%
Benchmark	-2.0	N.A.	N.A.	-4.0

STAFF RECOMMENDATIONS

No action required.

Vam will be created for period ending 9/30/93.

WADDELL & REED

PORTFOLIO MANAGER: Henry Herrman

ASSETS UNDER MANAGEMENT: \$210,363,908

INVESTMENT PHILOSOPHY

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

QUALITATIVE EVALUATION
(Reported By Exception)

Exceptional strengths are:

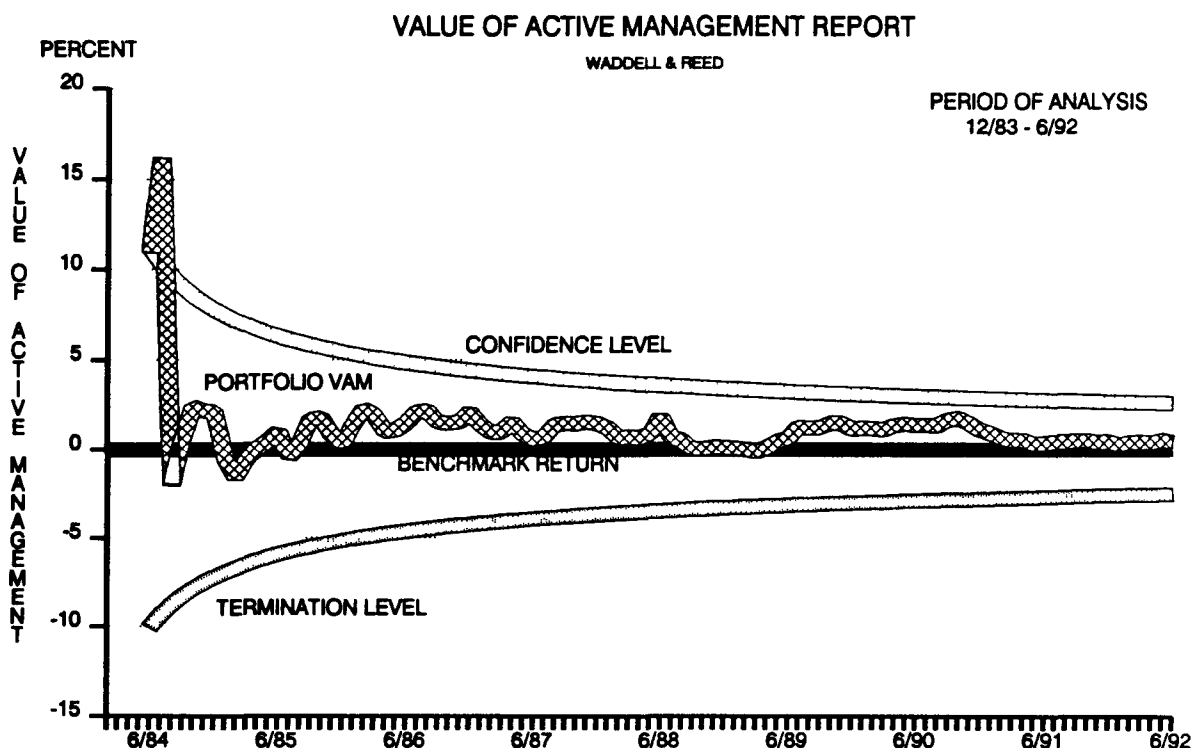
- Highly successful and experienced professionals.

QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 1/1/84
Actual Return	-3.1%	12.4%	7.3%	11.0%
Benchmark	-3.4	11.2	6.9	10.6

STAFF RECOMMENDATIONS

Conduct an in-depth review of Waddell & Reed for the December 1992 Board meeting.



POST FUND STOCK SEGMENT

PORTFOLIO MANAGER: SBI Staff

ASSETS UNDER MANAGEMENT: \$610,321,633

INVESTMENT PHILOSOPHY

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

QUALITATIVE EVALUATION
(Reported By Exception)

Exceptional strengths are:

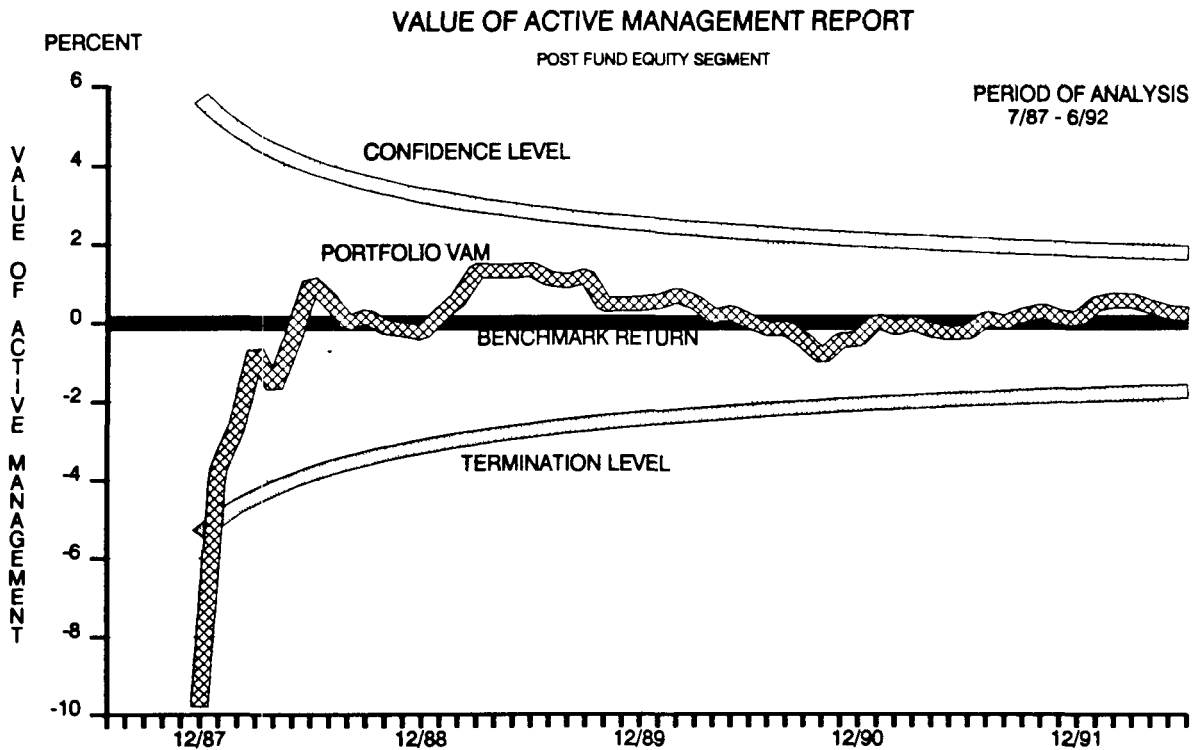
- The investment methodologies used in the portfolio have been applied successfully over various market environments.

QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 7/1/87
Actual Return	0.5%	19.8%	9.0%	9.0%
Benchmark	2.0	17.2	8.7	8.7

STAFF RECOMMENDATIONS

No action required.



ALLIANCE CAPITAL MANAGEMENT
Investment Commentary
6/30/92

As of 6/30/92, Alliance's portfolio represented 10.8% of the total stock portfolio and 25.9% of the active stock portfolio. For the most recent quarter and year, Alliance Capital outperformed its benchmark by 0.5% and 11.7% respectively. For the quarter, Alliance Capital generated positive value added through sector allocation and negative value added through stock selection. For the year, Alliance Capital generated a positive value added in stock selection and a negative value added in sector allocation. The breakdown of Alliance Capital's value added for the latest quarter and year are shown below:

	Qtr.	Year
Stock Selection	-1.2%	12.1%
Sector Allocation	1.7	-0.4

SECTOR ALLOCATION

The following table highlights Alliance's largest sector deviations relative to their benchmark of 6/30/92.

	6/91	Actual portfolio		Benchmark
		12/91	6/92	
Consumer				
Non-Durable	55.4%	65.4%	67.3%	59.8%
Financial	17.6	16.2	18.6	12.1
Transport	5.6	4.5	1.8	1.6
Technology	7.4	4.0	2.7	4.4
Basic Material	3.6	2.9	3.3	7.6

For the quarter, Alliance Capital's sector allocation positive value added was primarily due to the overweighting in the finance sector and media stocks in the consumer non-durable sector. In addition, Alliance Capital added value by holding larger capitalization stocks than the benchmark. For the year, the negative value added was dispersed among a number of different sectors.

STOCK SELECTION

For the latest quarter, the consumer non-durable and the technology sectors were the major contributors to the negative stock selection performance. In addition, the capital goods sector generated negative value added but to a smaller degree than the other two sectors. For the year, the consumer non-durable, financial, and technology sectors were the largest contributors to the positive value added.

FORSTMANN LEFF ASSOCIATES
Investment Commentary
6/30/92

As of 6/30/92, Forstmann-Leff's portfolio represented 5.6% of the total stock portfolio and 13.5% of the active stock portfolio. For the most recent quarter, Forstmann-Leff underperformed its benchmark by 4.1% and 1.9% for the latest year. For the quarter, Forstmann-Leff generated negative value added through stock selection and sector allocation. For the year, Forstmann-Leff generated a positive value added in stock selection and a negative value added in sector allocation. The breakdown of Forstmann-Leff's value added for the latest quarter and year are shown below.

	Qtr.	Year
Stock Selection	-1.3%	1.7%
Sector Allocation	-2.8	-3.6

SECTOR ALLOCATION

The following table highlights Forstmann Leff's largest sector deviations relative to their benchmark of 6/30/92.

	Actual portfolio			Benchmark
	6/91	12/91	6/92	
Consumer				
Non-Durable	52.1%	53.8%	42.4%	38.2%
Energy	11.7	10.6	8.2	6.5
Financial	20.6	19.7	26.9	18.0
Utilities	1.1	6.3	6.0	4.6
Transport	1.0	1.6	5.2	3.1
Capital Goods	2.5	1.3	2.1	5.3
Technology	4.6	2.2	3.5	8.5
Basic Material	4.8	3.4	4.2	10.7

For the quarter, the primary cause for Forstmann-Leff's sector allocation underperformance was due to the overweighting of the consumer non-durable sector and underweighting in the capital goods sector. For the year, the overweighting in the energy sector and their underweighting in the technology sector generated the majority of the negative value added.

STOCK SELECTION

For the latest quarter, the basic materials and consumer non-durable sectors generated the majority of the negative value added. For the year, the technology and capital goods sectors generated the majority of the stock selection positive value added.

FRANKLIN PORTFOLIO ASSOCIATES TRUST
Investment Commentary
6/30/92

As of 6/30/92, Franklin's portfolio represented 3.2% of the total stock portfolio and 7.6% of the active stock portfolio. For the most recent quarter and year, Franklin matched its benchmark but underperformed by 0.4% for the year. For the quarter, Franklin generated a small negative value added for stock selection and a small positive value added for sector allocation. For the year, Franklin generated positive value added through stock selection and negative value added through sector allocation. The breakdown of Franklin's value added for the latest quarter and year are shown below:

	Qtr	Year
Stock Selection	-0.1%	0.1%
Sector Allocation	0.1	-0.5

SECTOR ALLOCATION

The following table highlights Franklin's largest sector deviations relative to their benchmark of 6/30/92.

	Actual portfolio			
	6/91	12/91	6/92	Benchmark
Consumer				
Non-Durable	36.5%	31.3%	32.6%	32.9%
Financial	18.9	23.7	20.2	17.7
Utilities	17.1	15.4	14.1	15.0
Transport	0.6	0.2	1.9	2.4
Consumer Durable	2.5	2.7	8.2	4.8
Basic Material	6.8	8.3	6.8	10.8

For the quarter, the small positive value added was generated by the overweighting in the financial sector. For the year, an underweighting in transportation was the largest contributor to their negative value added performance.

STOCK SELECTION

For the quarter, near term earnings prospects had the most important effect on stock selection. There were no particular sectors that had a high proportion of winners or losers. For the year, the stocks that performed well were dominated by economic sensitive issues while the poor performers were dominated by earnings disappointments. Overall, the net effect was a slightly positive stock selection.

GEOCAPITAL CORPORATION
Investment Commentary
6/30/92

As of 6/30/92, GeoCapital's portfolio represented 3.6% of the total stock portfolio and 8.5% of the active stock portfolio. For the most recent quarter, GeoCapital outperformed its benchmark by 0.4% and for the latest year by 11.0%. For the quarter, GeoCapital generated a negative value added through stock selection but a positive value added with their sector allocation. For the year, GeoCapital generated a positive value added in both stock selection and sector allocation. The breakdown of GeoCapital's value added for the latest quarter and year are shown below:

	Qtr.	Year
Stock Selection	-0.7%	5.6%
Sector Allocation	1.1	5.4

SECTOR ALLOCATION

The following table highlights GeoCapital's largest sector deviations relative to their benchmark of 6/30/92.

	6/91	Actual portfolio		Benchmark
		12/91	6/92	
Consumer				
Non-Durable	64.9%	69.4%	63.1%	60.0%
Energy	0.0	0.0	0.0	2.3
Financial	20.3	19.5	26.9	5.8
Utilities	7.6	4.8	2.9	6.2
Capital Goods	0.7	0.2	0.2	5.6
Technology	4.1	3.6	3.1	13.6

For the quarter, the majority of GeoCapital's sector allocation positive value added was due to an overweighting of the financial sector. For the year, the financial, and energy sectors generated the majority of the positive value added.

STOCK SELECTION

For the latest quarter, almost all of the negative value added came from the technology and consumer non-durable sectors. However for the year, the same consumer non-durable and technology along with the energy and financial sectors provided the majority of the positive value added.

IDS ADVISORY
Investment Commentary
6/30/92

As of 6/30/92, IDS's portfolio represented 4.3% of the total stock portfolio and 10.3% of the active stock portfolio. For the most recent quarter and year, IDS underperformed its benchmark by 1.1% and 0.3% respectively. For the quarter IDS generated negative value added through stock selection and sector allocation. For the year, IDS generated a positive value added through stock selection and negative value added through sector allocation. The breakdown of IDS's value added for the latest quarter and year are shown below:

	Qtr.	Year
Stock Selection	-0.6%	0.9%
Sector Allocation	-0.5	-1.2

SECTOR ALLOCATION

The following table highlights IDS's largest sector deviations relative to their benchmark of 6/30/92.

	Actual portfolio			Benchmark
	6/91	12/91	6/92	
Energy	4.3%	7.6%	7.9%	7.2%
Financial	16.1	14.4	12.0	20.8
Utilities	0.4	3.2	1.4	11.5
Transport	6.7	8.5	3.7	3.7
Consumer Durable	4.2	3.7	11.6	3.0
Basic Material	19.7	15.8	18.5	11.0

For the quarter, the majority of IDS's sector allocation negative value added was due to an underweighting in the utility and financial sectors. For the year, none of the sectors showed a materially large positive or negative value added.

STOCK SELECTION

For the latest quarter, the financial and basic material sectors generated the majority of the negative value added. These results were partially offset by positive performance in the technology sector. For the year, the technology and consumer durable sectors provide strong positive value added performance. This was partially offset by poor performance in the utility and financial sectors.

LIEBER & COMPANY
Investment Commentary
6/30/92

PERFORMANCE RESULTS

As of 6/30/92, Lieber's portfolio represented 3.1% of the total stock portfolio and 7.4% of the active stock portfolio. For the most recent quarter and year Lieber underperformed its benchmark by 3.4% and 7.6% respectively. For the quarter and year Lieber generated negative value added through stock selection and sector allocation. The breakdown of Lieber's value added for the latest quarter and year are shown below.

	Qtr.	Year
Stock Selection	-2.7%	-7.2%
Sector Allocation	-0.7	-0.4

SECTOR ALLOCATION

The following table highlights Lieber's largest sector deviations relative to their benchmark of 6/30/92.

	Actual portfolio			Benchmark
	6/91	12/91	6/92	
Consumer				
Non-Durable	39.7%	42.9%	41.0%	37.3%
Energy	4.2	2.9	0.1	3.6
Financial	18.1	19.8	26.5	20.9
Utilities	3.2	1.4	0.1	5.7
Basic Material	19.7	15.8	10.9	11.2

For the quarter the majority of Lieber's sector allocation negative value added was due to an underweighting of the utility sector. For the year, none of the sectors had any significant positive or negative value added returns.

STOCK SELECTION

For the latest quarter almost all of the negative value added came from technology and basic materials. For the year consumer non-durables generated the majority of the negative value added. Most of the other sectors for the year were negative but significantly less than the consumer non-durable contribution.

WADDELL & REED
Investment Commentary
6/30/92

As of 6/30/92, Waddell & Reed's portfolio represented 4.0% of the total stock portfolio and 9.6% of the active stock portfolio. For the most recent quarter and year, Waddell & Reed outperformed its benchmark by 0.4% and 1.5% respectively. For the quarter and year Waddell & Reed generated negative value added through stock selection and positive value added for sector allocation. The breakdown of Waddell & Reed's value added for the latest quarter and year are shown below:

	Qtr.	Year
Stock Selection	-0.4%	0.2%
Sector Allocation	0.8	1.3

SECTOR ALLOCATION

The following table highlights Waddell & Reed's largest sector deviations relative to their benchmark of 6/30/92.

	Actual portfolio			
	6/91	12/91	6/92	Benchmark
Consumer				
Non-Durable	32.0%	41.1%	33.4%	43.0%
Energy	12.2	9.2	4.6	8.0
Financial	10.3	9.6	12.7	2.2
Transport	9.5	6.5	9.7	4.6
Consumer Durable	3.7	5.5	10.7	7.3
Capital Goods	8.9	3.9	4.7	8.2

For the quarter, the majority of Waddell & Reed's sector allocation positive value added was due to an overweighting of the financial sector and an underweighting of the consumer non-durable sector. For the year, the financial and transportation sectors provided the majority of the value added. This was partially offset by their overweighting of the energy sector which performed poorly.

STOCK SELECTION

For the latest quarter the medical and health areas was the most significant contributor to the negative performance. For the year, no one particular area provided any significant positive or negative value added returns.

**STATE BOARD
OF INVESTMENT**

**Bond
Manager
Evaluation
Reports**

Second Quarter, 1992

BOND MANAGERS

Second Quarter 1992

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

Staff Recommendations:

Staff recommends the following actions concerning manager status:

- Conduct an in-depth review of Lincoln Capital Management for the December 1992 Board meeting.

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

Current Managers	Total Market Value 6/30/92 (Millions)	Quarter Ending 6/30/92		Year Ending 6/30/92		Annualized Five Years Ending 6/30/92		Annualized Since Inception		% of Stock Segment 6/30/92 Basic Funds
		Actual	Bmrk	Actual	Bmrk	Actual	Bmrk	Actual	Bmrk	
IAI	\$173	4.4%	4.1%	15.2%	14.5%	10.5%	10.6%	13.4%	13.3%	6.9%
Lehman Ark	127	4.3	4.1	13.1	13.5	10.1	10.1	12.3	12.5	5.1
Miller Anderson	278	4.1	4.1	17.0	14.2	10.4	10.6	13.3	13.3	11.1
Western Asset	516	3.8	4.1	15.6	14.3	11.6	10.8	14.4	13.2	20.6
Fidelity*	727	3.8	4.1	14.1	14.2	N.A.	N.A.	11.4	11.2	29.1
Lincoln*	681	3.9	4.1	14.1	14.2	N.A.	N.A.	11.1	11.2	27.2
Current Aggregate **		3.9	4.1	14.7	14.2	10.7	10.6	13.4	13.1	100.0
Historical Aggregate***				14.7	14.2	10.6	10.6	12.9	13.1	
Salomon Broad Investment Grade Index		4.1		14.2		10.6		13.3		

* Semi-passive manager

** Includes performance of current managers only.

*** Includes performance of terminated managers.

INVESTMENT ADVISERS

PORTFOLIO MANAGER: Larry Hill

ASSETS UNDER MANAGEMENT: \$173,105,787

INVESTMENT PHILOSOPHY

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

QUALITATIVE EVALUATION
(Reported By Exception)

The current evaluation notes the following:

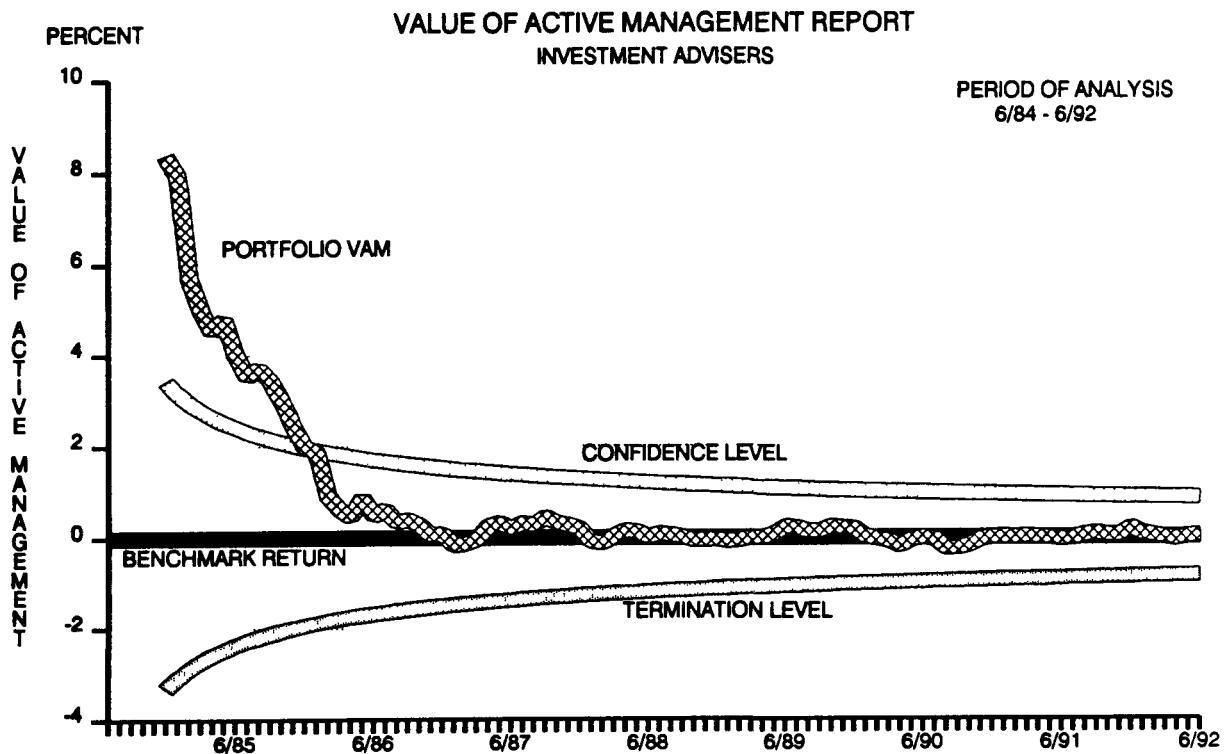
- The manager's duration decisions have not added significant value.

QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 7/1/84
Actual Return	4.4%	15.2%	10.5%	13.4%
Benchmark	4.1	14.5	10.6	13.3

STAFF RECOMMENDATIONS

Latest five year period is below benchmark. An in-depth review was conducted for the March 1991 Board meeting.



LEHMAN ARK MANAGEMENT

PORTFOLIO MANAGER: Kevin Hurley

ASSETS UNDER MANAGEMENT: \$126,790,003

INVESTMENT PHILOSOPHY

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

QUALITATIVE EVALUATION

(Reported By Exception)

The current evaluation notes the following:

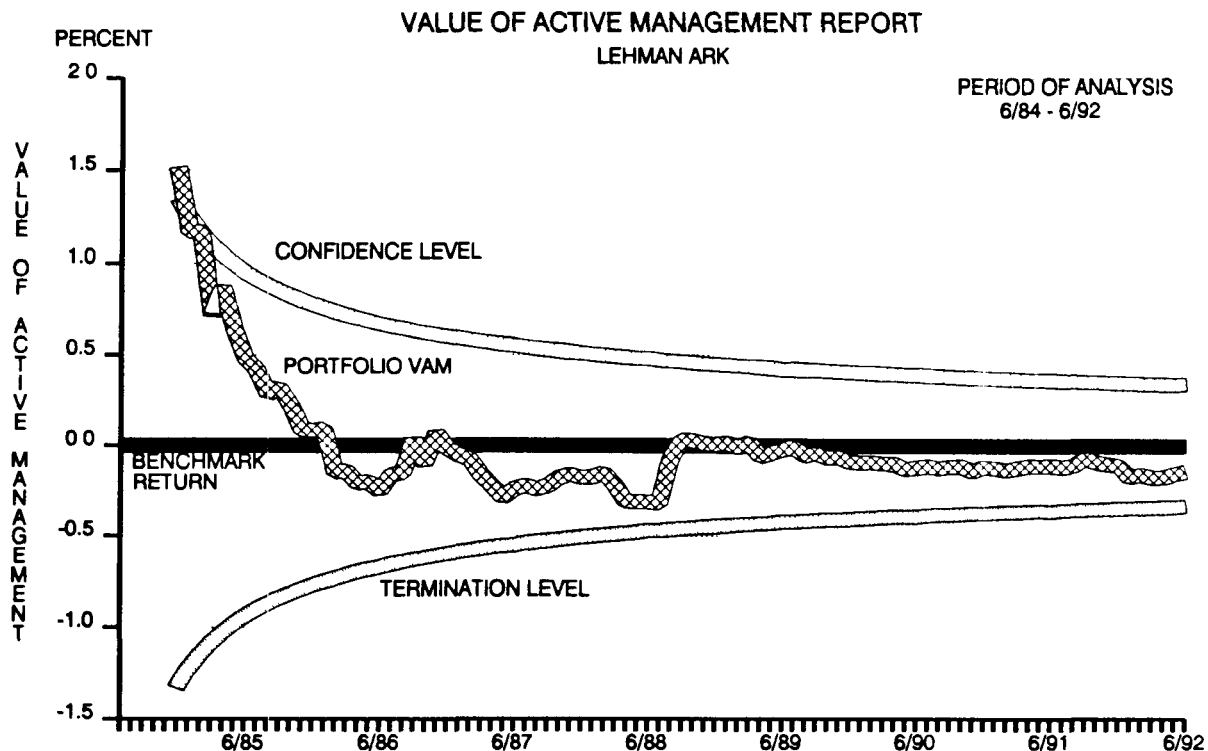
- The firm has used an index-like approach in its management of the portfolio and has made relatively few active bets.

QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 7/1/84
Actual Return	4.3%	13.1%	10.1%	12.3%
Benchmark	4.1	13.5	10.1	12.5

STAFF RECOMMENDATIONS

An in-depth review was conducted for the September 1992 Board meeting.



MILLER ANDERSON

PORTFOLIO MANAGER: Tom Bennet

ASSETS UNDER MANAGEMENT: \$277,657,514

INVESTMENT PHILOSOPHY

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

QUALITATIVE EVALUATION
(Reported By Exception)

The firm's strengths continue to be:

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

The current evaluation notes the following:

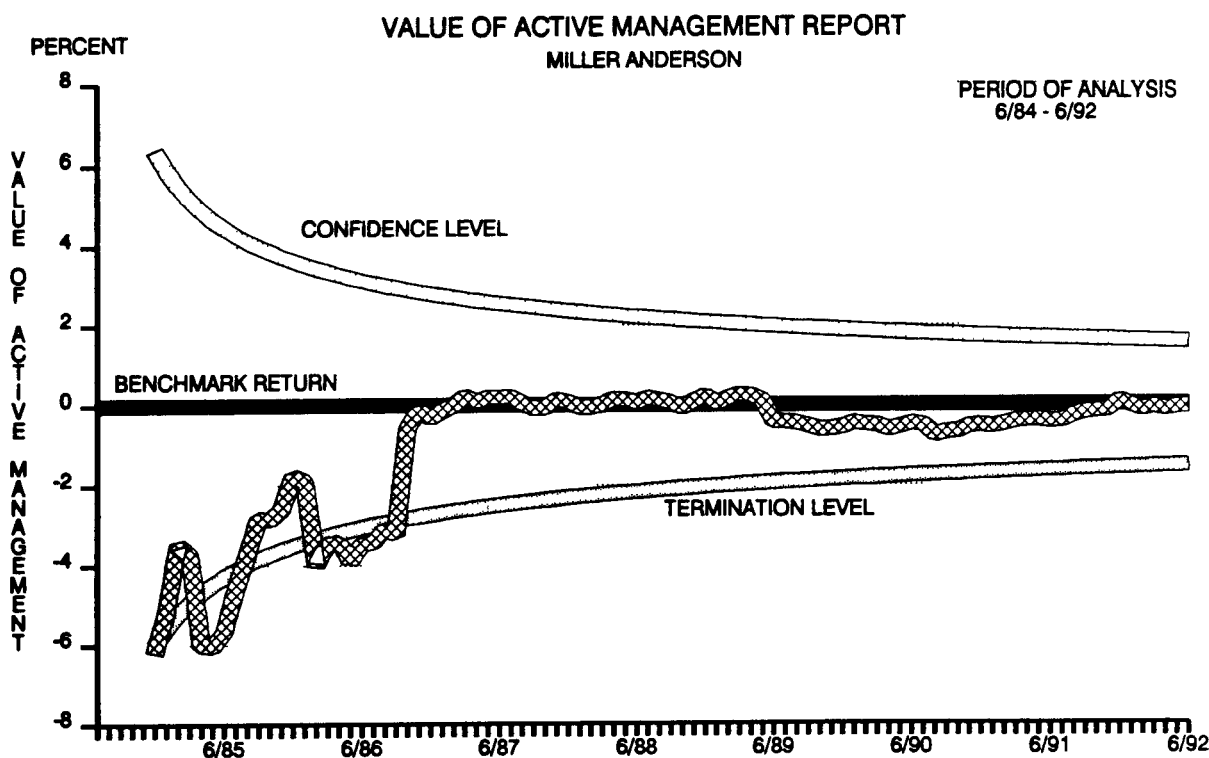
- Miller has underperformed for the last five years primarily due to downgrades in major corporate holdings.

QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 7/1/84
Actual Return	4.1%	17.0%	10.4%	13.3%
Benchmark	4.1	14.2	10.6	13.3

STAFF RECOMMENDATIONS

Latest five year period is below benchmark. In-depth review was conducted for June 1991 Board meeting.



WESTERN ASSET MANAGEMENT

PORTFOLIO MANAGER: Kent Engel

ASSETS UNDER MANAGEMENT: \$515,849,599

INVESTMENT PHILOSOPHY

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

QUALITATIVE EVALUATION
(Reported By Exception)

The firm's exceptional strengths continue to be:

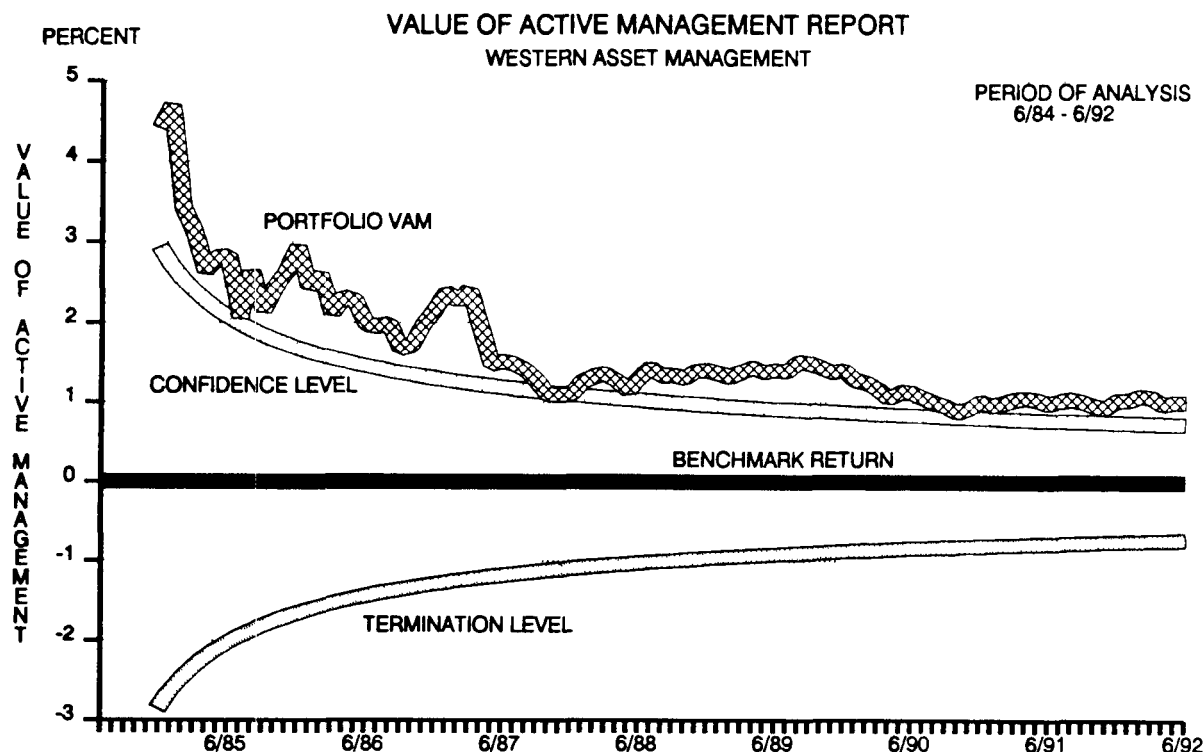
- Highly successful and experienced professionals.
- Extensive research and understanding in the application of normal portfolios to bond management.

QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 7/1/84
Actual Return	3.8%	15.6%	11.6%	14.4%
Benchmark	4.1	14.3	10.8	13.2

STAFF RECOMMENDATIONS

No action required.



FIDELITY MANAGEMENT TRUST

PORTFOLIO MANAGER: Sharmin Mossavar-Rahmani

ASSETS UNDER MANAGEMENT: \$727,262,348

INVESTMENT PHILOSOPHY

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

QUALITATIVE EVALUATION
(Reported By Exception)

The firm's strengths are:

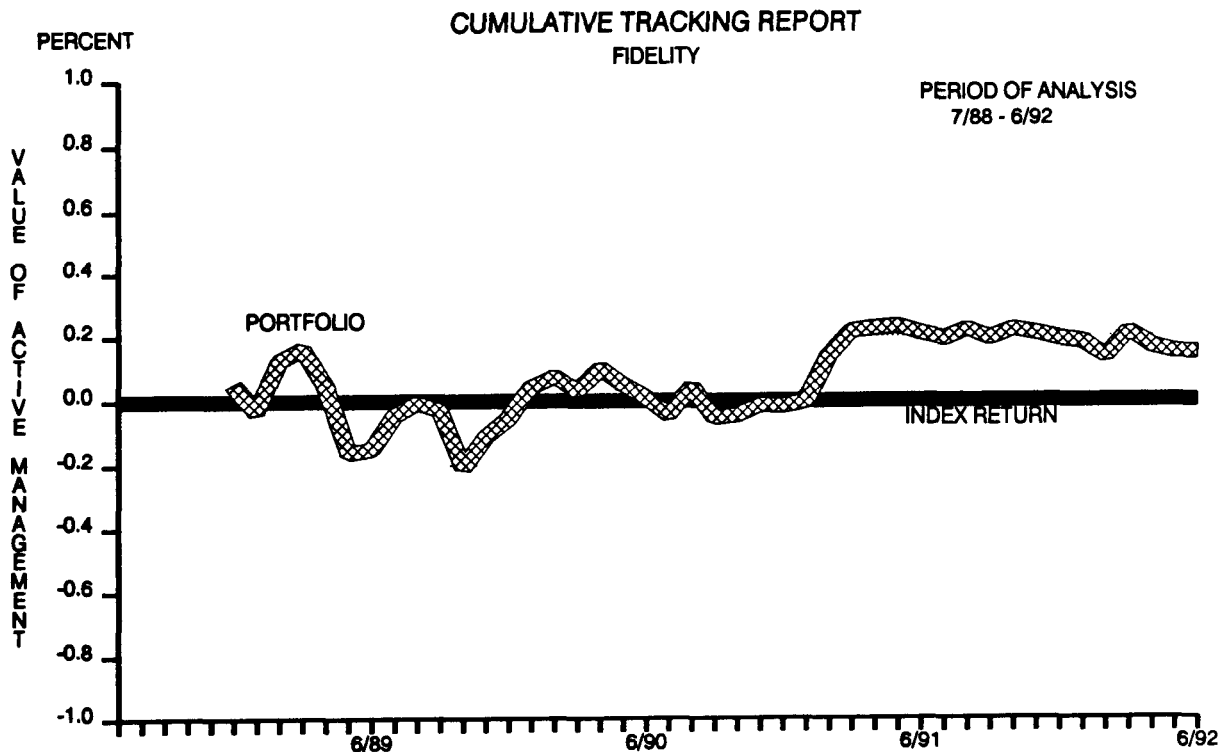
- Highly successful and experienced professionals.
- Extensive securities research process.
- Quantitative capabilities.

QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 7/1/88
Actual Return	3.8%	14.1%	N.A.	11.4%
Benchmark	4.1	14.2	N.A.	11.2

STAFF RECOMMENDATIONS

No action required.



LINCOLN CAPITAL MANAGEMENT

PORTFOLIO MANAGER: Brian Johnson

ASSETS UNDER MANAGEMENT: \$682,566,881

INVESTMENT PHILOSOPHY

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

QUALITATIVE EVALUATION
(Reported By Exception)

The firm's strengths are:

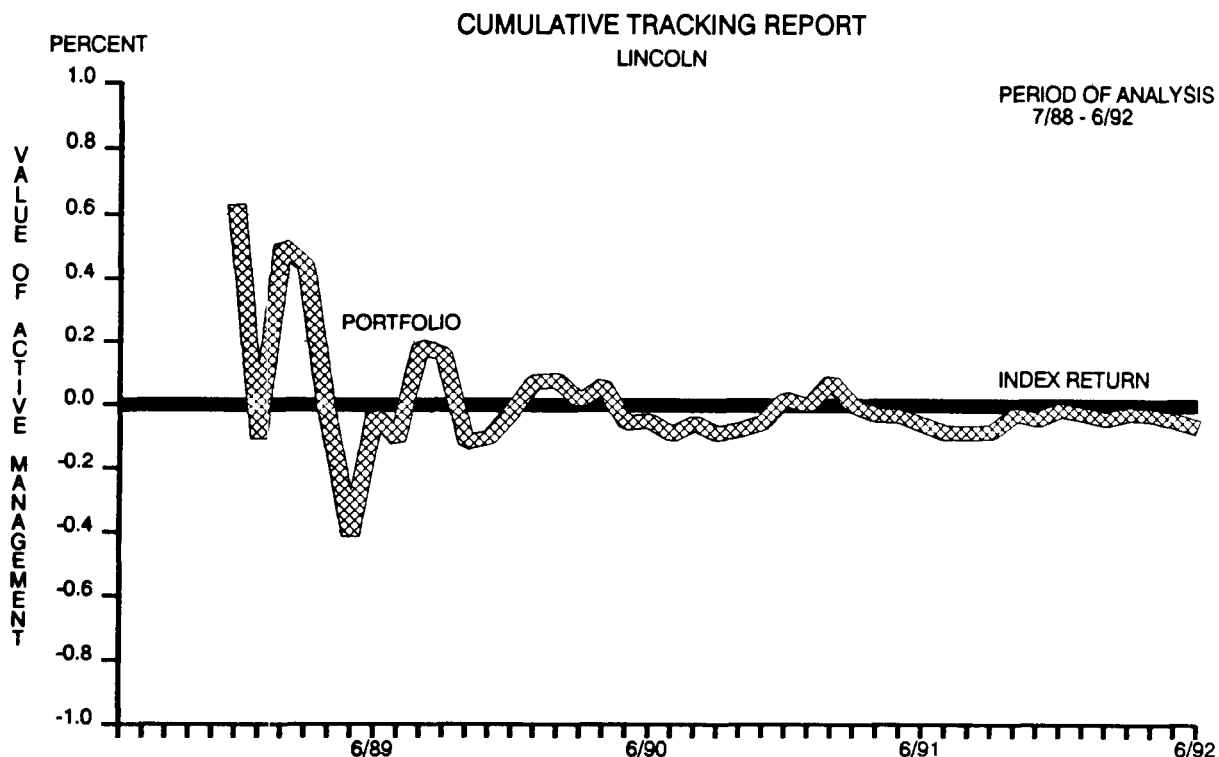
- Highly successful and experienced professionals.
- Extensive quantitative capabilities.

QUANTITATIVE EVALUATION

	Latest Qtr.	Latest 1 Yr.	Latest 5 Yrs.	Since 7/1/88
Actual Return	3.9%	14.1%	N.A.	11.1%
Benchmark	4.1	14.2	N.A.	11.2

STAFF RECOMMENDATIONS

Conduct an in-depth review for the December 1992 Board meeting.



INVESTMENT ADVISERS, INC.
Investment Commentary
6/30/92

As of 6/30/92, Investment Adviser's portfolio represented 7% of the SBI's fixed income portfolio. Over the past year, IAI outperformed the benchmark by 64 basis points, and this quarter they outperformed by 32 basis points. This was primarily due to maintaining a duration longer than the benchmark while interest rates decreased.

IAI believes that the economic data point to a sluggish recovery and gradually declining inflation rates. This, combined with an extremely steep yield curve is expected to lead to lower long term interest rates. Thus, IAI is maintaining a duration significantly longer than the benchmark. They believe that corporate spreads are extremely narrow and continue to underweight this sector. Over the past year, IAI has also underweighted the mortgage sector in favor of Treasury notes of comparable maturity.

DURATION AND YIELD CURVE POSITIONING

During the quarter, signs emerged that the economy's growth was slow and inflation was not a threat. In response, long term interest rates dropped 18 basis points by the quarter-end. IAI's strategy of holding a duration longer than the benchmark, therefore, was the primary reason for outperforming. As of 6/30/92, the duration of the portfolio was 6.8 years versus the benchmark duration of 4.5 years.

IAI's portfolio was positioned for a flatter yield curve. In particular, they expected long term rates to decline relative to intermediate and short term rates. This detracted from performance since the yield curve actually became more steep.

SECTOR ALLOCATION

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

	June 30, 1991		June 30, 1992	
	IAI	Benchmark	IAI	Benchmark
Treasury/Agency	78%	53%	81%	53%
Mortgages	15	29	15	29
Corporates	4	18	3	18
Other	0	0	0	0
Cash	3	0	1	0

IAI remained overweighted in the Treasury/Agency sector, underweighted in the mortgage sector, and significantly underweighted in corporate securities relative to the benchmark. The underweighting of corporate securities detracted from performance as this sector has performed well versus the Treasury sector this quarter, and over the entire fiscal year.

LEHMAN ARK MANAGEMENT COMPANY, INC.

Investment Commentary

6/30/92

As of 6/30/92, Lehman Ark Management's portfolio represented 5% of the SBI's fixed income portfolio. Over the past year, Lehman underperformed the benchmark by 40 basis points, despite outperforming this quarter by 26 basis points. This outperformance was primarily due to maintaining a duration longer than the benchmark while interest rates decreased. Overweighting asset backed securities also contributed to outperformance this quarter.

Lehman still believes that although there are signs of improvement, the recovery will be lackluster. This, combined with low inflation rates will eventually lead to lower long term interest rates. Thus, Lehman is maintaining a duration longer than the benchmark. In addition, because they perceive that investors are reaching for yield by extending maturities, they feel the long end of the yield curve will eventually decline relative to shorter maturities. Therefore, they are positioning the portfolio for a flattening of the yield curve. They have matched the benchmark weighting in the mortgage sector and overweighted asset-backed securities for their yield advantage, and concentrated their ownership of corporate debt in the intermediate maturity range.

DURATION AND YIELD CURVE POSITIONING

Lehman's duration as of 6/30/92 was 5.5 years, versus the benchmark of 4.5 years. This contributed to positive performance since long term rates declined during the quarter. Lehman's barbelled portfolio detracted from performance this quarter as the yield curve became more steep.

SECTOR ALLOCATION

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

	June 30, 1991		June 30, 1992	
	Lehman	Benchmark	Lehman	Benchmark
Treasury/Agency	57%	53%	37%	53%
Mortgages	15	29	30	29
Corporates	18	18	16	18
Other	8	0	13	0
Cash	2	0	4	0

Lehman made two sector bets this quarter. They underweighted the Treasury/Agency sector, and overweighted asset backed securities relative to the benchmark. No active bets were made in the mortgage or corporate sector. The underweighting of the corporate sector hurt performance because it outperformed the Treasury sector, despite having to absorb heavy issuance again this quarter. The overweighting of asset backed securities contributed to performance since this sector also performed well this quarter.

MILLER, ANDERSON & SHERRERD
Investment Commentary
6/30/92

As of 6/30/92, Miller, Anderson & Sherrerd's portfolio represented 11% of the SBI's fixed income portfolio. Over the past year, Miller outperformed the benchmark by 282 basis points, however, this quarter matched the benchmark. Miller maintained a significantly longer duration than the benchmark, but the yield curve positioning negated much of the benefits from this.

Miller believes that the economic recovery will prove to be subpar. This, combined with gradually declining inflation rates, will eventually lead to lower long term interest rates. Thus, Miller is maintaining a duration significantly longer than the benchmark. Additionally, they believe the long end of the yield curve will decline more than the intermediate or short portions, and are therefore positioning for a flattening of the curve. They continue to hold a large portion of the portfolio in mortgage securities and are slightly underweighted in corporates. They perceive high quality corporates to be fully valued, and are holding medium quality issues.

DURATION AND YIELD CURVE POSITIONING

Miller's duration as of 6/30/92 was 7.0 years, versus the benchmark of 4.5 years. Since the duration of the portfolio was substantially longer than the benchmark, and interest rates decreased throughout the quarter, portfolio returns benefited.

Miller was also positioned for a flatter yield curve, which was the principal drag on performance since long rates did not decline as much as shorter rates, and the yield curve became more steep.

SECTOR ALLOCATION

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

	June 30, 1991		June 30, 1992	
	Miller	Benchmark	Miller	Benchmark
Treasury/Agency	44%	53%	34%	53%
Mortgages	40	29	41	29
Corporates	13	18	18	18
Other	0	0	0	0
Cash	3	0	7	0

Miller underweighted the Treasury/Agency sector, and overweighted the mortgage sector this quarter relative to the benchmark. Lower interest rates caused prepayment fears to resurface and mortgage spreads to perform in line with Treasuries. Therefore, the overweighting of mortgages did not add or detract from the portfolio.

WESTERN ASSET MANAGEMENT
Investment Commentary
6/30/92

As of 6/30/92, Western Asset Management's portfolio represented nearly 21% of the SBI's fixed income portfolio. Over the past year, Western outperformed the benchmark by 132 basis points. For the quarter, however, Western underperformed the market by 26 basis points. The primary reasons for their good performance over the past year were a substantial exposure to corporate securities and maintaining a duration longer than the benchmark in a declining interest rate environment. This quarter, the barbell maturity exposure in anticipation of a flattening yield curve detracted from performance.

Western believes that inflation is under control and interest rates, especially on the long end, will continue to decline. Therefore, they are maintaining a duration longer than the benchmark and continue to hold a barbelled maturity structure. In addition, they continue to hold a large portion of the portfolio in corporate securities and are underweighted in mortgages. They believe that declining interest rates and accelerated mortgage prepayments will allow the corporate sector to outperform the mortgage-backed sector. Additionally, they believe the long end of the yield curve will outperform short and intermediate term issues as the yield curve flattens.

DURATION AND YIELD CURVE POSITIONING

Interest rates declined during the quarter as the market perceived the economic recovery was faltering. Thus, maintaining a portfolio duration longer than the benchmark added to Western's performance. On 6/30/92, Western's portfolio duration was 5.5 years versus the benchmark of 4.5 years.

Maintaining a barbelled maturity structure hurt performance since the yield curve became more steep.

SECTOR ALLOCATION

Western's sector allocation allowed them to outperform the benchmark. Below is a breakdown of Western's allocation to each sector versus the benchmark which is the Salomon Broad Investment Grade Index.

	June 30, 1991		June 30, 1992	
	Western	Benchmark	Western	Benchmark
Treasury/Agency	26%	53%	36%	53%
Mortgages	23	29	18	29
Corporates	38	18	38	18
Other	8	0	6	0
Cash	5	0	2	0

This quarter, Western underweighted Treasury and mortgage securities and overweighted corporate securities. This corporate exposure, especially in finance issues, contributed positively to performance. Underweighting the mortgage sector did not detract from performance as this sector performed in line with Treasuries.

FIDELITY MANAGEMENT TRUST

Investment Commentary

6/30/92

Fidelity's portfolio represents 29.1 % of the SBI's portfolio. For the year, Fidelity's portfolio returned 14.10 % versus 14.16 % for the Salomon BIG. Fidelity also underperformed the BIG for the quarter, 3.84 % versus 4.06 %. Fidelity underperformed the market for the past year primarily because they had a barbelled portfolio and the yield curve steepened. A downgrading of a corporate security also detracted from performance. Fidelity added value to the portfolio by overweighting corporate securities and underweighting Treasury securities. Additionally, value was added through subsector selection within the corporate sector and corporate issuer selection.

DURATION

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

SECTOR ALLOCATION

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

	June 91		June 92	
	Fidelity %	SAL BIG %	Fidelity %	SAL BIG %
Treasury/Govt Spon.	43	53	33	52
Mortgages	32	28	30	29
Corporates	24	18	24	19
Cash	1	0	4	0

The above shows that for the quarter and year, Fidelity overweighted corporate and mortgage securities. This overweighting helped performance because the corporate and mortgage sectors performed well. Quarterly mortgage and corporate returns were -4.04% and 4.39% while the government sector returned 3.97%. Yearly returns for mortgages and corporates were 14.05% and 15.57 % while governments returned 13.78%. However, Fidelity's barbelled portfolio and an issue downgrading hurt performance.

Within the sectors, the majority of the government assets were invested in long duration securities while the corporate securities had a shorter duration. For the quarter, Fidelity added value within the corporate sector by emphasizing bank bonds. In the mortgage sector, Fidelity added value through correct coupon selection but an overweighting in GNMA's offset these gains.

LINCOLN CAPITAL MANAGEMENT COMPANY

Investment Commentary

6/30/92

Lincoln's portfolio represents 27.2 % of the SBI's portfolio. For the year, Lincoln's portfolio returned 14.05% versus 14.16% for the Salomon BIG. Lincoln also underperformed the BIG for the quarter, 3.88% versus 4.06%. Lincoln had lower returns primarily because they were underweighted in corporates and mortgages. Lincoln reported that additional transaction costs due to rebalancing activity also eroded returns. Lincoln added value during the year through security selection.

DURATION

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

SECTOR ALLOCATION

The following table compares sector allocations to the benchmark which is the Salomon Broad Investment Grade Index:

	June 30, 1991		June 30, 1992	
	Lincoln	Benchmark	Lincoln	Benchmark
Treasury/Agency	55%	53%	50%	53%
Mortgages	24	29	28	29
Corporates	15	18	16	18
Other	1	0	1	0
Cash	5	0	5	0

The above shows that Lincoln's portfolio mirrored the market but was slightly underweighted in both corporate and mortgages for the year and the quarter. This lowered returns since the mortgage and corporate sectors had higher returns for both the quarter and year. Quarterly mortgage and corporate returns were 4.04% and 4.39% while the government sector returned 3.97%. Yearly returns for mortgages and corporates were 14.05% and 15.57% while governments returned 13.78%.

Within the corporate sector, Lincoln underweighted utilities for the quarter and year because they thought option adjusted spreads were narrow. To offset the yield disadvantage of this underweighting, Government Trust Certificates were overweighted versus other agency securities in the government sector. These certificates offer wider spreads than other agency securities. The asset-backed securities replaced the shorter duration corporates in the index.

The mortgage sector of the portfolio was overweighted in 8.5%, 30-year conventionals. 8.5% conventionals offered a comparable option-adjusted spread to 9.0%, 30 year mortgages with a lower prepayment risk and an attractive deferred settlement premium.

Tab G

COMMITTEE REPORT

DATE: September 1, 1992

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

FROM: **Alternative Investment Committee**

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

- Review of current strategy.
- Results of annual review sessions with existing managers.
- Status of First Reserve, one of the SBI's oil and gas fund managers.
- Investments with three new private equity managers: Churchill Capital, Great Northern Capital Management and ChiCorp Management III, Inc.

INFORMATION ITEMS:

1) Review of Current Strategy.

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

The real estate investment strategy calls for the establishment and maintenance of a broadly diversified real estate portfolio comprised of investments that provide overall diversification by property type and location. The main component of this portfolio consists of investments in diversified open-end and closed-end commingled funds. The remaining portion of the portfolio can include investments in less diversified, more focused (specialty) commingled funds. Currently, the SBI has committed \$430 million to fifteen (15) commingled real estate funds.

The venture capital investment strategy is to establish and maintain a broadly diversified venture capital portfolio comprised of investments that provide

diversification by industry type, stage of corporate development and location. To date, the SBI has committed to twenty-one (21) commingled venture capital funds for a total commitment of \$538 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 \$141 million to nine (8) commingled oil and gas funds

2) Results of Annual Review Sessions with Existing Managers.

During June and July, the Alternative Investment Committee and staff attended annual review sessions with four of the SBI's private equity managers (KKR, Brinson, Golder Thoma and Zell/Chilmark) and one of the SBI's real estate managers (Zell/Merrill Lynch)

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

Overall, the meetings went well and produced no major surprises. KKR, Golder Thoma and Brinson have performed well over the last year, benefiting from the robust initial public offering market. Zell/Merrill Lynch and Zell/Chilmark are still in the early stages of their investment cycle.

3) Status of First Reserve, one of the SBI's oil and gas fund managers.

First Reserve is involved in litigation which potentially could force them into Chapter 11 bankruptcy. In July, a jury in Houston, Texas concluded that First Reserve's acquisition of the McMurry division of Baker Hughes on behalf of First Reserve Secured Energy Assets Fund in August 1989 interfered with Houston Monarch Inc's (HMI) attempt to acquire the same entity in June 1989. The jury found for HMI in a sum in excess of \$150 million against First Reserve, McMurry Oil Tools and others. First Reserve and related defendants plan to appeal the verdict and are currently awaiting the judgment from the trial judge within the next 60-90 days.

Staff and the Attorney General are gathering information on the implications for each of the Partnerships managed by First Reserve and will be working with other First Reserve Limited Partners and First Reserve to discuss appropriate courses of action.

ACTION ITEMS:

1) Investment in Churchill Capital Partners II.

Churchill Capital, Inc. is seeking investors in a new \$150 million private equity fund, Churchill Capital Partners II. The fund will be a follow-on fund to Churchill Capital Partners I which was formed in 1989 with \$95 million in investor commitments. Like Fund I, Fund II will lend money to small and medium-sized companies located primarily in the Midwest.

More information on the Churchill Fund is included as **Attachment G**.

RECOMMENDATION:

The Committee recommends that the SBI authorize the Executive Director, with assistance from the SBI's legal counsel, to negotiate and execute a commitment of up to \$20 million or 20%, whichever is less, in Churchill Capital Partners II.

2) Investment in Great Northern Capital Partners, L.P.

Great Northern Capital Management is seeking investors in a new \$100 million private equity fund, Great Northern Capital Partners, L.P. This will be Great Northern's first limited partnership fund. However, as senior managers of IAI Capital Group, the merger and merchant banking arm of Investment Advisors Inc., the partners of the General Partner have worked on a number of transactions that represent excellent investment opportunities of the type the Partnership intends to pursue. Strategically, the Fund will invest in middle market companies located primarily in the Midwest and Minnesota which are facing strategic, financial or ownership change and have international business potential.

More information on the Great Northern Fund is included as **Attachment H**.

RECOMMENDATION:

The Committee recommends that the SBI authorize the Executive Director, with assistance from the SBI's legal counsel, to negotiate and execute a commitment of up to \$20 million or 20%, whichever is less, in Great Northern Capital Partners, L.P.

3) Investment in Midwest Bank Fund III.

ChiCorp Management III, Inc. is seeking investors in a new \$125 million private equity fund, Midwest Bank Fund III. This fund will be a follow-on fund to Midwest Bank Fund II, which was formed in 1989 with \$60 million in investor commitments,

and Midwest Bank Fund I, which was formed in 1986 with \$51 million in investor commitments. Like the prior funds, Fund III will invest in Midwestern subregional banks which will benefit from the deregulation and consolidation of the U.S. banking industry.

More information on the Midwest Bank Fund is included as **Attachment I**

RECOMMENDATION:

The Committee recommends that the SBI authorize the Executive Director, with assistance from the SBI's legal counsel, to negotiate and execute a commitment of up to \$20 million or 20%, whichever is less, in Midwest Bank Fund III, L.P.

ATTACHMENT A

SUMMARY OF ALTERNATIVE INVESTMENTS AS OF 6/30/92

	<u>MARKET VALUE</u>	<u>UNFUNDED COMMITMENT</u>	<u>TOTALS</u>
REAL ESTATE \$ % OF BASIC RET FUND	\$377,818,326 4.39%	\$63,481,312 0.74%	\$441,299,638 5.13%
VENTURE CAPITAL \$ % OF BASIC RET FUND	\$394,865,440 4.59%	\$217,678,285 2.53%	\$612,543,725 7.12%
RESOURCE \$ % OF BASIC RET FUND	\$91,317,826 1.06%	\$25,438,361 0.30%	\$116,756,187 1.36%
TOTALS % OF BASIC RET FUND	\$864,001,592 10.04%	\$306,597,958 3.56%	\$1,170,599,550 13.60%
			15 % ALLOCATION TARGET \$1,291,136,920
			AMOUNT AVAILABLE FOR INVESTMENT \$120,537,370
* Market Value of Basic Retirement Fund at 6/30/92:			\$8,607,579,464

See next page for additional detail

The market value information for alternative investments in this Attachment has been revised based on updated information during July and August 1992.

ATTACHMENT A (con't)

ALTERNATIVE EQUITY INVESTMENTS

	INCEPT DATE	COMMIT	FUNDED COMMIT	MKT VALUE OF FUNDED COMMIT	CASH DISTRIBUTIONS	UNFUNDED COMMIT	IRR	MEASUREMENT PERIOD
REAL ESTATE:								
AETNA	4/82	\$40,000,000	\$40,000,000	\$55,537,376	\$0	\$0	3.7%	10.2
EQUITABLE	10/81	\$40,000,000	\$40,000,000	\$70,170,935	\$0	\$0	6.0%	10.7
HEITMAN I	8/84	\$20,000,000	\$20,000,000	\$16,531,977	\$11,842,636	\$0	6.5%	7.9
HEITMAN II	11/85	\$30,000,000	\$30,000,000	\$31,503,205	\$10,334,096	\$0	6.4%	6.6
HEITMAN III	1/87	\$20,000,000	\$20,000,000	\$17,397,584	\$4,840,620	\$0	2.5%	5.4
HEITMAN V	7/91	\$20,000,000	\$10,000,000	\$10,078,602	\$56,039	\$10,000,000	3.9%	0.9
LASALLE	9/91	\$15,000,000	\$3,386,142	\$3,430,175	\$0	\$11,613,858	2.1%	0.8
PAINE WEBBER *	2/90	\$500,000	\$500,000	\$377,650	\$33,501	\$0	-8.0%	2.4
RREEF	5/84	\$75,000,000	\$75,000,000	\$64,741,616	\$19,708,911	\$0	2.0%	8.1
AEW III	9/85	\$20,000,000	\$20,000,000	\$19,465,824	\$0	\$0	-0.4%	6.8
AEW IV	9/86	\$15,000,000	\$15,000,000	\$4,852,183	\$829	\$0	-18.4%	5.8
AEW V	12/87	\$15,000,000	\$15,000,000	\$12,000,679	\$65,593	\$0	-5.1%	4.5
TCW III	8/85	\$40,000,000	\$40,000,000	\$37,532,581	\$10,900,071	\$0	3.4%	6.9
TCW IV	11/86	\$30,000,000	\$30,000,000	\$26,131,039	\$2,399,403	\$0	-1.1%	5.7
ZELL	7/91	\$50,000,000	\$8,132,546	\$8,066,900	\$0	\$41,867,454	-2.4%	1.0
TOTAL R.E. PORTFOLIO		\$430,500,000	\$367,018,688	\$377,818,326	\$60,181,698	\$63,481,312		
VENTURE CAPITAL:								
ALLIED	9/85	\$5,000,000	\$5,000,000	\$4,065,186	\$2,263,456	\$0	5.6%	6.8
DSV	4/85	\$10,000,000	\$10,000,000	\$11,933,351	\$0	\$0	2.8%	7.2
FIRST CENTURY	12/84	\$10,000,000	\$8,500,000	\$6,981,560	\$3,757,398	\$1,500,000	7.1%	7.5
BRINSON	5/88	\$5,000,000	\$4,978,229	\$4,134,599	\$1,903,532	\$21,771	8.8%	4.1
BRINSON II	7/90	\$20,000,000	\$10,000,000	\$10,386,177	\$2,690,238	\$10,000,000	34.6%	1.9
GOLDER THOMA	10/87	\$14,000,000	\$8,405,000	\$12,561,121	\$649,516	\$5,595,000	17.0%	4.7
IAI VENTURES I *	3/91	\$500,038	\$500,038	\$492,916	\$124,474	\$0	19.1%	1.3
IAI VENTURES II	7/90	\$10,000,000	\$5,492,505	\$5,768,830	\$304	\$4,507,495	6.2%	1.9
DNMAN/BOWMAN	6/85	\$7,500,000	\$7,500,000	\$5,396,155	\$0	\$0	-8.3%	7.1
KKR I	3/84	\$25,000,000	\$25,000,000	\$36,160,000	\$58,227,510	\$0	30.2%	8.3
KKR II	12/85	\$18,365,339	\$18,365,339	\$27,500,000	\$23,314,630	\$0	22.5%	6.5
KKR III	10/87	\$146,634,660	\$134,301,723	\$207,470,000	\$20,340,395	\$12,332,937	17.8%	4.7
KKR IV	5/91	\$150,000,000	\$0	\$0	\$0	\$150,000,000	0.0%	1.1
MATRIX	8/85	\$10,000,000	\$10,000,000	\$6,825,626	\$8,808,201	\$0	10.3%	6.9
MATRIX II	5/90	\$10,000,000	\$3,500,000	\$3,301,907	\$1,052	\$6,500,000	-5.1%	2.2
NORWEST	1/84	\$10,000,000	\$10,000,000	\$5,859,318	\$4,646,430	\$0	0.9%	8.5
SUMMIT I	12/84	\$10,000,000	\$10,000,000	\$5,150,512	\$10,964,609	\$0	10.7%	7.5
SUMMIT II	5/88	\$30,000,000	\$22,500,000	\$21,596,129	\$8,529,981	\$7,500,000	16.1%	4.1
SUPERIOR	6/86	\$6,645,000	\$5,648,250	\$6,758,836	\$0	\$996,750	5.1%	6.0
T ROWE PRICE	11/87	\$10,035,919	\$10,035,919	\$3,456,036	\$8,313,258	\$0	27.0%	4.6
ZELL/CHILMARK	7/90	\$30,000,000	\$11,275,668	\$9,067,181	\$1,187,438	\$18,724,332	-14.6%	2.0
TOTAL V.C. PORTFOLIO		\$538,680,956	\$321,002,672	\$394,865,440	\$155,722,420	\$217,678,285		
RESOURCES								
AMGO I	9/81	\$15,000,000	\$15,000,000	\$4,194,196	\$3,614,536	\$0	-7.9%	10.8
AMGO II	2/83	\$7,000,000	\$7,000,000	\$6,339,083	\$2,325,453	\$0	3.1%	9.4
AMGO IV	7/88	\$12,300,000	\$12,300,000	\$14,957,750	\$1,508,552	\$0	10.4%	4.0
AMGO V	5/90	\$16,800,000	\$14,535,147	\$14,039,615	\$3,403,869	\$2,264,853	12.1%	2.2
APACHE III	12/86	\$30,000,000	\$30,000,000	\$8,912,014	\$31,249,138	\$0	9.9%	5.5
MORGAN O&G	8/88	\$15,000,000	\$11,400,000	\$12,583,676	\$0	\$3,600,000	3.4%	3.9
B P ROYALTY	2/89	\$25,000,000	\$25,000,000	\$29,875,000	\$11,022,107	\$0	18.9%	3.3
SIMMONS OFS	7/91	\$20,000,000	\$426,492	\$416,492	\$10,000	\$19,573,508	0.0%	0.9
TOTAL RES PORTFOLIO:		\$141,100,000	\$115,661,639	\$91,317,826	\$53,133,655	\$25,438,361		
TOTAL ALT INV. PORTFOLIO:		\$1,110,280,956	\$803,682,999	\$864,001,592	\$269,037,773	\$306,597,958		

* RECEIVED FROM POLICE & FIRE CONSOLIDATIONS

ATTACHMENT B

ANNUAL REVIEW SUMMARY KKR 1984, 1986, 1987 AND 1991 FUNDS June 30, 1992

MANAGER REPRESENTATIVES: Perry Golkin, Ted Ammon

SBI ASSETS UNDER MANAGEMENT: \$271,130,000

BACKGROUND AND DESCRIPTION:

The KKR 1984, 1986, 1987 and 1991 Funds are managed by Kohlberg, Kravis, Roberts and Company and started in March 1984, December 1986, September 1987 and July 1991, respectively. In total, the SBI has committed \$340 million to the four Funds. As of June 1992, \$177.67 million of the SBI's total commitment had been funded. Each fund has a twelve year term. The investment focus of KKR is on large management leveraged buyouts. KKR operates out of offices in San Francisco and New York.

QUALITATIVE EVALUATION:

KKR has made 22 investments in the funds in which the SBI has participated. The market value and cash distributions received by the SBI are 2.2 times the SBI's original investment.

During 1991, KKR was able to take advantage of the favorable equity markets to reduce risk in several portfolio companies and to realize some of the values that have been built since those companies were acquired. In 1991, \$6 billion in new equity was raised representing 10 percent of the total stock market's new equity offerings during the year.

KKR has begun to develop a "buildup" investment strategy as leveraged buyouts have become less prevalent in the 1990's. A buildup is when a management group is assembled and several undervalued companies within an industry are combined to make a larger entity. Currently, KKR is developing the buildup approach in several niche areas. cable television, radio, and the service and leisure industries.

The investment in RJR Nabisco continues to make steady progress. A recapitalization program was completed through a series of equity and debt offerings, including 100 million shares of common stock which was sold at twice the original investment cost. The company is no longer classified as a highly leveraged transaction and has become an investment grade entity.

ATTACHMENT B (con't)

QUANTITATIVE EVALUATION

	FUNDS (\$Million)			
	<u>1984</u>	<u>1986</u>	<u>1987</u>	<u>1991</u>
COMMITMENT:	\$25.00	\$18.37	\$146.63	\$150.00
FUNDED COMMITMENT:	\$25.00	\$18.37	\$134.3	\$0.00
MARKET VALUE OF FUNDED COMMITMENT:	\$36.16	\$27.50	\$207.47	\$0.00
CASH DISTRIBUTIONS:	\$58.23	\$23.31	\$20.34	\$0.00
INCEPTION DATE(S):	Mar '84	Dec '85	Oct '87	May '91
INTERNAL RATE OF RETURN (IRR): (annualized, since inception)	30.2%	22.5%	17.8%	0.0%

DIVERSIFICATION PROFILE

Location - (Utilizing employment figures)

West	43.73%
South	18.19%
Midwest	11.17%
East	26.91%

Investment Stage - (By cost of equity investment)

Public	73.53%
Sold	14.45%
Private - Recent acquisition	7.56%
Private - Older acquisition	1.05%
Reorganization	3.41%

Industry Type - (By cost of investment)

Retail Auto Parts	1%
Printing	1%
Oil/Gas Producer	5%
Supermarkets	4%
Container Manufacturer	3%
Diversified Industrial	3%
Furniture Retail	1%
Consumer Products	67%
Print Media	9%
Banking	5%

ATTACHMENT C

ANNUAL REVIEW SUMMARY BRINSON PARTNERS June 30, 1992

MANAGER REPRESENTATIVES: Marianne Woodward, Bonn French

SBI ASSETS UNDER MANAGEMENT: \$14,520,776

BACKGROUND AND DESCRIPTION:

The Brinson Partners Venture Partnership I and II are managed by Brinson Partners, an investment advisory spin-off from the First Chicago Corporation. The Funds started in May 1988 and July 1990, respectively, with ten-year terms and optional extensions

The Venture Partnership Acquisition funds (VPAF) invest exclusively in secondary venture capital limited partnership interests with the objective of earning rates of return superior to that of traditional venture capital investing. Brinson Partners (and its predecessor, First Chicago) has been making venture capital investments, primarily for institutional clients, since 1972.

QUALITATIVE EVALUATION:

VPAF Fund I, incepted in May 1988, is a \$47 million fund to which the SBI has committed \$5.0 million. The fund has made investments in 21 partnerships and has drawn down 97% of the committed capital. The SBI has realized \$1.9 million in cash distributions from Fund I. The general partner has indicated that three-quarters of the investments are performing at or above expectations. The average investment in the portfolio is \$2.2 million, was 4 years old at the time of purchase, and was acquired at an average 17% discount to its carrying value.

Fund II, incepted in July 1990, is a \$111.1 million fund, of which the SBI has committed \$20 million. The fund now has 11 partnership investments. Despite the short tenure of the fund, the general partner is very optimistic regarding the performance of the fund.

Brinson is focusing on two to five year old partnerships for potential acquisition. Their strategy is to invest in fifteen to thirty partnerships per fund with diversity by geography, stage, industry and vintage year. Currently, there appears to be a high degree of interest in the secondary interest area with more competition from other entrants.

ATTACHMENT C (con't)

QUANTITATIVE EVALUATION

	<u>FUND I</u>	<u>FUND II</u>
COMMITMENT:	\$5,000,000	\$20,000,000
FUNDED COMMITMENT:	\$4,978,229	\$10,000,000
MARKET VALUE OF FUNDED COMMITMENT:	\$4,134,599	\$10,386,177
CASH DISTRIBUTIONS:	\$1,903,532	\$ 2,690,238
INCEPTION DATE(S)	May 88	July 90
INTERNAL RATE OF RETURN (IRR) (annualized, since inception)	8.8%	34.6%

DIVERSIFICATION PROFILE

<u>YEAR PARTNERSHIPS IN THE FUND WERE INCEPTED</u>	<u>FUND I</u>	<u>FUND II</u>
1978	1.60%	0.00%
1979	0.00	0.00
1980	0.00	0.00
1981	3.83	0.00
1982	0.00	0.00
1983	14.06	12.56
1984	33.66	1.20
1985	2.48	1.28
1986	10.00	26.28
1987	9.48	3.97
1988	10.00	35.27
1989	14.89	0.00
1990	0.00	0.00
1991	<u>0.00</u>	<u>19.44</u>
	100.00%	100.00%

ATTACHMENT D

ANNUAL REVIEW SUMMARY GOLDER, THOMA & CRESSEY July 1, 1992

MANAGER REPRESENTATIVES: Bruce Rauner, Carl Thoma

SBI ASSETS UNDER MANAGEMENT: \$12,561,121

BACKGROUND AND DESCRIPTION:

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

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

QUALITATIVE EVALUATION:

GTC has a portfolio of fourteen investments in a variety of industries, utilizing more than half of the funds committed to the partnership. In general, the fund's operating companies are performing well. The vast majority of companies in the portfolio are achieving or exceeding the general partner's expectations despite a lackluster economic environment. Only three companies have experienced disappointing performances over the last year. Three of the portfolio companies were positioned to take advantage of the strong stock market to raise some public equity. Most of the companies in the portfolio continue to make attractive acquisitions to supplement strong internal earnings growth.

The general partner is reviewing a substantial number of industries for potential investment including nursing homes, specialty distribution, packaging, publishing and outdoor advertising. They will continue to focus on industry consolidation investment opportunities. Recently, the fund has started new companies in the funeral home and newspaper industries, and have signed letters of intent to acquire several other businesses.

ATTACHMENT D (con't)

QUANTITATIVE EVALUATION

COMMITMENT:	\$14,000,000
FUNDED COMMITMENT:	\$ 8,405,000
MARKET VALUE OF FUNDED COMMITMENT:	\$12,561,121
CASH DISTRIBUTIONS	\$ 649,516
INCEPTION DATE(S):	October 1987
INTERNAL RATE OF RETURN (IRR): (annualized, since inception)	17.0%

DIVERSIFICATION PROFILE

COMPANY	DESCRIPTION	
American Income	Life Insurance Company	16.90%
Barefoot Grass	Lawn Care Company	4.30
Crellin Industries	Manufacturer of Molded Plastic Products	6.87
Dickson Media	Community Newspapers	1.37
Ero Industries	Manufacturers & Mkts Leisure Products	5.59
Golf Enterprises	Golf Course Ownership and Mgmt	5.16
Haddon Craftsman	Book Printer	4.70
Heritage Propane	Propane Distribution	6.66
MC Industries	Fluid Power Industry	9.11
Nicholstone Printing	Book Bindery	8.20
Northern Investment LP	Small LBO Fund	1.33
Prime Succession	Funeral Homes	2.58
Restaurant Mgmt Services	Restaurant Development & Mgmt	6.88
Sullivan Graphics	Publishing Industry Acquisitions	14.36
Other	Unsuccessful Ind. Consolidation Efforts	<u>5.99</u>
		100.00%

ATTACHMENT E

ANNUAL REVIEW SUMMARY ZELL/CHILMARK July 1, 1992

MANAGER REPRESENTATIVES: Steve Quazzo, Don Phillips

SBI ASSETS UNDER MANAGEMENT: \$9,067,181

BACKGROUND AND DESCRIPTION:

The Zell/Chilmark Fund was formed in July 1990 by Sam Zell and David Schulte. Sam Zell is Chairman of the Board of Equity Financial and Management Company, an 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, in June 1984. Chilmark has advised companies on the restructuring of their businesses in conjunction with recapitalizations or on investments in rejuvenation situations.

The investment strategy of Zell/Chilmark is to invest in corporate restructurings and rejuvenation situations. The partnership will invest primarily in the assets, debt and/or common and preferred stock of companies with a fair market value of at least \$100 million.

QUALITATIVE EVALUATION:

The Zell/Chilmark Fund made its first investments during the past year.

The largest investment has been the acquisition of a significant amount of the outstanding debt and unsecured trade claims of Carter Hawley Hale Stores, Inc., a national retailing chain. The partnership has invested in excess of \$230 million in the acquisition of this debt at 47 cents on the dollar. The company is operating under the protection of the bankruptcy court. Zell/Chilmark will be providing financial support to the chain's store modernization program and will have a considerable equity stake and control position in CHH when the company emerges from bankruptcy.

Zell/Chilmark has acquired approximately 20% of the outstanding common stock of Revco D.S., Inc. Revco, which recently emerged from bankruptcy, is one of the largest retail drugstore chains in the U.S. The general manager expects to acquire additional shares pursuant to a standby purchase agreement as part of the reorganization. In conjunction with an allied shareholder, Zell will control the board of directors.

The fund has made two investments in JACOR Communications, Inc. Jacor currently owns five AM and six FM radio station properties in Atlanta, Cincinnati, Denver, Jacksonville, Knoxville and Tampa. The company is in need of restructuring and will be required to obtain the approval of Zell/Chilmark to implement a financial restructuring during the next 12 months.

ATTACHMENT E (con't)

QUANTITATIVE EVALUATION

COMMITMENT:	\$30,000,000
FUNDED COMMITMENT:	\$11,275,668
MARKET VALUE OF FUNDED COMMITMENT:	\$ 9,067,181
CASH DISTRIBUTIONS:	\$ 1,187,438
INCEPTION DATE(S):	July 1990
INTERNAL RATE OF RETURN (IRR): (annualized, since inception)	-14.6%

DIVERSIFICATION PROFILE (% of Investment)

Carter Hawley Hale	81.53%
Revco, D.S., Inc	17.96
Jacor Communications, Inc.	<u>0.51</u>
	100.00%

ATTACHMENT F

ANNUAL REVIEW SUMMARY ZELL/MERRILL LYNCH July 1, 1992

MANAGER REPRESENTATIVES: Steve Quazzo, Don Phillips

SBI ASSETS UNDER MANAGEMENT: \$8,066,900

BACKGROUND AND DESCRIPTION:

The Zell/Merrill Lynch Real Estate Opportunity Partnership II was formed in November, 1991. Sam Zell and his affiliate, Equity Financial and Management Company (Zell/Equity), will have primary investment responsibility for the fund. Merrill Lynch will have an oversight role. This fund is the second Limited Partnership Fund for Zell and Merrill Lynch. The first fund was formed in August, 1988.

The investment strategy of Zell/Merrill Lynch II is to make equity or equity-related investments in opportunistic real estate situations generally at prices below replacement cost. The partnership will acquire office, retail, and residential properties and may also invest in mixed-use and industrial properties. The fund, additionally, has the authority to acquire convertible or participating mortgages.

QUALITATIVE EVALUATION:

During the first year of the Fund's existence, the general partner has made three acquisitions. The three properties were purchased for \$140.2 million with a replacement cost of \$294.2 million, and are all class A office properties. The general partner believes that the market situations surrounding each of these properties are favorable enough to support an occupancy goal of 90+% within three years.

The general partner reports that certain markets continue to worsen (i.e., Miami, Chicago, West Coast); and other markets have hit the bottom, but show no signs of improving in the near term (i.e., New York, Boston, Dallas). There are not very many comparable sales in these markets, no significant capital flowing to real estate, new construction is totally shut off and refinancing of existing assets is difficult. This scenario will result in the continual surfacing of attractive investment opportunities for the fund.

While the investments to date have all been office properties, the general partner believes there will be investment opportunities in the residential and retail areas.

ATTACHMENT F (con't)

QUANTITATIVE EVALUATION

COMMITMENT:	\$50,000,000
FUNDED COMMITMENT:	\$ 8,132,546
MARKET VALUE OF FUNDED COMMITMENT:	\$ 8,066,900
CASH DISTRIBUTIONS:	\$ 0
INCEPTION DATE(S):	December 1991
INTERNAL RATE OF RETURN (IRR): (annualized, since inception)	-2.4%

DIVERSIFICATION PROFILE

<u>Property</u>	<u>Location</u>	<u>% of Investment</u>
Trap Falls Center	Shelton, Conn.	3.8%
Bank One Center	Indianapolis, Ind.	83.5
North Central Plaza Three	Dallas, TX	<u>12.7</u>
		100.0%

ATTACHMENT G

PRIVATE EQUITY MANAGER PROFILE

I. BACKGROUND DATA

NAME OF FUND: Churchill Capital Partners II

FUND MANAGER: Churchill Capital, Inc.

TYPE OF FUND: Subordinated Debt Limited Partnership

TOTAL FUND SIZE: \$125 Million to \$150 Million

INTERVIEW DATE: August 17, 1992

MANAGER CONTACT: Michael J. Hahn

ADDRESS: 2400 Lincoln Centre
333 South Seventh Street
Minneapolis, MN 55402-2435

TELEPHONE: 612-673-6633

II. ORGANIZATION AND STAFF

The Fund will be managed by the General Partner which will include Michael J. Hahn, Duane G. Harris and several other professionals. The General Partner is an affiliate of the Churchill Companies.

Mr. Hahn serves as Managing Director of the General Partner. He and the professional staff of the General Partner have extensive training and background in banking, corporate finance and accounting.

Churchill Capital, Inc. was formed in 1987 and this will be the second Fund under their management.

The Churchill Companies is a private, Minneapolis-based investment firm. The firm is now exclusively focused on acting as a principal in businesses which are held from long-term appreciation. Conventional fee based investment banking activities are no longer undertaken. The General Partner will maintain separate premises and be operated totally independently and at arm's length from the Churchill Companies.

ATTACHMENT G (con't)

III. INVESTMENT STRATEGY

Churchill Capital Partners II, L.P. is being formed as a vehicle for providing subordinated debt to established small and medium-sized companies for various purposes. In the opinion of the General Partner, many of these companies lack the size, sophistication, and marketability to economically participate in the regional equity or national debt markets. Due to the problems these companies experience in accessing these markets, the General Partner believes that the Partnership can make loans and investments in such companies which provide attractive rates of return to the Partnership and provide a lower cost alternative to the borrower.

The Fund will invest in companies which have a history of earnings evidencing the potential for making scheduled debt service, dividend and redemption obligations in respect of portfolio loans and investments, as well as the potential for capital appreciation. Such companies will usually be small to medium-sized (annual revenues of \$10 to \$100 million).

The Fund's activities will not be restricted to any particular region, although a substantial portion of loans are anticipated in the Midwest region where the G.P. believes there are many such companies which present attractive opportunities.

The General Partner intends to emphasize senior subordinated debt and, to a lesser extent, junior subordinated debt and preferred stock, together with additional borrower payments or equity kickers. The General Partner will expect to receive current income in the form of coupon interest on subordinated debt or preferred stock. Any gains on equity kickers will generally be dependent upon the business performance of the portfolio company over a period of years.

IV. INVESTMENT PERFORMANCE

Churchill Capital Partners II will be the second fund of the General partner. The first Fund had its final closing in 1989 at approximately \$95 million. Fund I has closed 17 transactions through mid-1992 for a commitment total of \$73 million. The G.P. anticipates completing the placement of its assets by the end of 1992. The current portfolio of loans in Fund I were priced to yield 20% to 30% internal rates of return over the life of the investments. The net returns to Fund I's investors are expected to be in the 19-20% range. To date, Fund I investors have received cash distributions representing 41% of total invested capital.

ATTACHMENT G (con't)

V. GENERAL PARTNER'S INVESTMENT

The General Partner will contribute 1% of the capital to the Fund. Additionally, \$2.0 million is being contributed on behalf of the employees of Churchill Capital, Inc. and the Brooks Family, who own 30% of the Churchill Companies will invest \$2.5 million.

VI. TAKEDOWN SCHEDULE

10% of committed capital at closing with the balance to be contributed in up to 10 additional calls for not less 10% commitments. Such additional commitments may only be made if at least 50% of the funds previously committed have been invested or committed for investment.

VII. DISTRIBUTIONS

Proceeds from the repayment of loans will be distributed to Partners in proportion to their respective Capital Contributions;

Profits and issues of the Partnership, will generally be allocated 1% to the General Partner and 99% to the Limited Partners.

The General Partner will receive an additional 20% of all Investment Gains and Additional Borrower Payments and 50% of Loan Fees.

VIII. TERM

Approximately twelve years unless earlier terminated or extended.

IX. MANAGEMENT FEE

Annual management fee of 1.5% of total committed capital during the first 3 years. Thereafter, the management fee shall be equal to 1.5% per annum of the remaining capital of the partnership.

The G.P. entitled to be reimbursed for all organizational expenses of the partnership in an amount up to 1/2% of total commitments and for all expenses incurred in connection with the business of the partnership including advertising and promotional expenses.

ATTACHMENT H

PRIVATE EQUITY MANAGER PROFILE

I. BACKGROUND DATA

NAME OF FUND: Great Northern Capital Partners, L.P.

FUND MANAGER: Great Northern Capital Management

TYPE OF FUND: Midwestern United States Middle-Market Private Equity Limited Partnership

TOTAL FUND SIZE: \$100 Million

INTERVIEW DATE: August 17, 1992

MANAGER CONTACT: Steven G. Rothmeier

ADDRESS: 3800 First Bank Place
P.O. Box 357
Minneapolis, MN 55440

TELEPHONE: 612-376-2800

II. ORGANIZATION AND STAFF

The fund will be managed by the General Partner which include investment Advisors, Inc., the senior professionals of IAI Capital Group, the merger and merchant banking arm of IAI Steven GT. Rothmeier, R. David Spreng and Ian D. Pacher, and Allan K. Pray, a Minnesota business executive

The Partnership is the first fund of the IAI Capital Group

Mr. Rothmeier is the managing general partner and is the former Chairman and Chief Executive Officer of NWA, Inc., and its subsidiary, Northwest Airlines, Inc

The Partnership is emphasizing Mr. Rothmeier's significant operation experience, versus a strictly financial perspective, as being a particularly unique factor. His experience and international contacts are considered to be major strength that the G.P. can employ in developing portfolio companies.

The General Partner will appoint and receive advice from time to time from an advisory board of experienced business executives.

ATTACHMENT H (con't)

III. INVESTMENT STRATEGY

Great Northern Capital Partners, L.P. is being formed to realize superior returns on long-term investments in established, middle market companies located primarily in the Midwestern United States which are facing strategic, financial or ownership change, have international business potential, and are in a position to benefit significantly from access to long-term capital and sound, objective advice and expertise.

The G.P. intends to seek those investment opportunities involving attractive price multiples that are tied to cash flow, debt coverage, and the risks and rewards of meeting operating goals. Although the Partnership will invest in leveraged situations, the General Partner intends to utilize conservative financial structures which will enable portfolio companies to grow and prosper.

The Partnership anticipates that it will invest capital in companies solely on a negotiated basis. The General Partner typically will seek board representation in connection with the partnership's investments and would expect to review and contribute to long-term business plans to build value. As a large investor and through its representation on the boards of portfolio companies, the Partnership will support measures which seek to ensure that management of portfolio companies will have sufficient equity-based incentives to encourage congruence of objectives between management and investors, including the Partnership. In connection with its investments, the Partnership may enter into stockholder agreements if such agreements are sought by the portfolio company and deemed appropriate by the General Partner.

IV. INVESTMENT PERFORMANCE

This is the first fund of the General Partner. However, as the senior professionals of IAI Capital Group, their merger and merchant banking arm of IAI, the general partners of the General Partner have worked on a number of transactions that represent excellent investment opportunities of the type the Partnership intends to pursue.

The General Partner anticipates that its affiliation with the IAI organization, IAI's senior management personnel, its reputation in the investment and business communities and international contacts and alliances IAI has developed over the years will provide the Partnership with access to investment opportunities of superior quality.

ATTACHMENT H (con't)

V. GENERAL PARTNER'S COMMITMENT

The General Partner will contribute a minimum of 1% of committed capital.

VI. TAKEDOWN SCHEDULE

The General Partner will make capital calls as needed to invest in portfolio companies upon five business days' written notice

VII. DISTRIBUTIONS

A summary of distributions is as follows:

- (1) The Partners will share 80% of net realized gains and losses in proportion to their capital contributions, and 20% of such net realized gains and loss will be allocated to the General Partner, to the extent the Partnership has a net gain on a cumulative basis, and
- (2) all other income, losses and expenses will be allocated among all Partners in proportion to their capital contributions

VIII. TERM

Ten years, subject to an extension of up to two years and a further extension of up to two additional years, in the discretion of the General Partner

IX. MANAGEMENT FEES

Annual management fees of 2% of committed capital, payable quarterly, in advance.

ATTACHMENT I

PRIVATE EQUITY MANAGER PROFILE

I. BACKGROUND DATA

NAME OF FUND: Midwest Bank Fund III

FUND MANAGER: ChiCorp Management III, Inc.

TYPE OF FUND: Midwest Bank Investment Limited Partnership

TOTAL FUND SIZE: \$125 Million

INTERVIEW DATE: August 17, 1992

MANAGER CONTACT: Charles J. Moore

ADDRESS: 208 South LaSalle Street
Suite
Chicago, IL 60604

TELEPHONE: 312-855-6020

II. ORGANIZATION AND STAFF

The Fund will be managed by the General Manager which will include Charles J. Moore, Richard H. Hein and John M. Baker and several other professionals. Messrs. Moore, Hein and Baker have managed the general partner and the two predecessor Midwest Bank Funds (I and II) since 1985-86.

ChiCorp Management III, Inc., is an affiliate of The Chicago Corporation, a regional investment banking firm. The operations of the General Partner are separate from those of The Chicago Corporation.

The management of the general partner have prior banking operations, professional accounting, and banking regulatory experiences. Fund management will be responsible for all day-to-day operations of the Bank Fund III including researching, negotiating and making investments, and managing the Fund's portfolio. The Fund will have an Advisory Committee and a Valuation Committee comprised of experienced investors with expertise in investment management and banking.

ATTACHMENT I (con't)

III. INVESTMENT STRATEGY

Bank Fund III L.P. is being formed to achieve superior financial returns in subregional banks.

The management of the fund will endeavor to invest in banks which have demonstrated above average book value growth and are likely acquisition targets. The Fund offers the possibility of substantial returns with relatively low risk attributable in part to diversification and management continuity

The deregulation of the U.S. banking industry has created unique investment opportunities among subregional banks with assets under \$5 billion. Prior to 1982, many states had omit banking laws which prevented banks from acquiring other banks in other states. In the past decade, several states have adopted legislation which has enabled interstate banking. This has resulted in a major industry consolidations with bank mergers and acquisitions. This consolidation will provide a major investment opportunity during the 1990's. Today, there are more than 12,000 independent banks and bank holding companies and 2,100 thrifts in the U.S. That number is forecast to shrink dramatically by the year 2000

Bank Fund III is being organized to take advantage of the consolidation accuring in the banking industry. The fund will invest in well managed banks which will be the acquisition targets in this consolidation process. The Fund intends to make private placement investments and purchase small illiquid blocks of shares in the best-operated banks at prices close to book value and a favorable price/earnings multiple, to hold the investments while the banks earn a competitive return on equity, and then to sell the holdings to acquiring banks at a higher multiple of book value and earnings. This process is intended to generate substantial returns with relatively low risk. In the consolidation now under way, some banks are positioning themselves as independent survivors for the immediate future

As such, they will need additional capital to make acquisitions and support future growth. Also, most regions have a number of banks with low stock prices and average operating results, but good market and geographic positions. Bank Fund III will exploit these market inefficiencies by arranging negotiated placements of private equity capital with both types of banks.

IV. INVESTMENT PERFORMANCE

Bank Fund III, L.P. will be the General Partner's third fund. The investment opportunity available to Bank Fund III is very similar to the one available to Bank Fund I and Bank Fund II. The first fund has generated a 17 1% internal rate of return and had 22 of its bank companies acquired. Bank Fund II has generated a 22% return and had 9 of its companies acquired. The returns for Funds I and II

ATTACHMENT I (con't)

were adversely impacted by a quicker drawdown of capital than anticipated in Fund III.

Bank Fund I has made investments in 78 banks costing \$83 million. Of the 78 investments, only 3 companies produced losses of an aggregate amount of \$1.1 million. Bank Fund II has made 57 investments for a total of \$57 million with only 3 companies experiencing a loss for an aggregate of \$460 thousand. This loss experience is substantially better than many other private equity funds.

V. GENERAL PARTNERS INVESTMENT

The Genral Partner will contribute a minimum of 1% of committed capital.

VI. TAKEDOWN SCHEDULE

5% of committed capital at closing with the balance called as needed in 19 additional calls.

VII. DISTRIBUTIONS

A summary of the distribution schedule is:

- a) On an annual basis, Bank Fund III will distribute all current income, net of expenses, to the Limited Partners.
- b) The Limited partners and the General Partner will share 80/20 in all net capital gains of the Partnership.

VIII. TERM

Bank Fund III will make investments during the first six years of its existence. The Fund will be established with a nine-year life and, with certain exceptions, no additional investments will be made after the sixth year. Liquidation will commence in year seven.

IV. MANAGEMENT FEE

Annual management fees equal to 2.25% of the first \$50 million of committed capital; 1.50% of the next \$50 million; and 0.75% on amounts over \$100 million. This fee will be adjusted annually for inflation.

Tab H

COMMITTEE REPORT

DATE: September 1, 1992

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

FROM: **Asset Allocation Committee**

The Asset Allocation Committee met on August 19, 1992 to consider the following:

- Comments from the consultant concerning the proposed international equity investing position paper
- Recommendation to the SBI concerning adoption of the international equity implementation plan

1) **Comments from the Consultant on the Position Paper**

On June 2, 1992, the IAC recommended that the Board's new international consultant, Pension Consulting Alliance (PCA), provide input on the international equity position paper before it is formally considered by the SBI. The Board concurred with this recommendation at its meeting on June 3, 1992.

PCA and InterSec Research Corp. submitted written comments on the paper that was included in the June 1992 "Board folder." Both PCA and InterSec state that they concur with the recommendations included in the paper. InterSec also provided several more technical comments on specific items. Copies of the correspondence from both organizations are attached.

Allan Emkin, PCA, will be present at the SBI and IAC meetings to respond to additional questions, as well.

The Committee concurred with most of the technical comments provided by InterSec and directed staff to make appropriate revisions in the position paper. The updated paper is attached.

2) Consideration of the Updated Implementation Plan

The SBI approved a 10% allocation to international stocks in the Basic Retirement Funds at its September 1991 meeting and directed staff, in conjunction with the IAC, to prepare an implementation plan.

In December 1991, Board members received a preliminary report from the Asset Allocation Committee concerning a proposed implementation plan for international equities in the Basic Retirement Funds. At that time, staff and the Committee differed on certain important issues. After further study and discussion, the staff and the Committee reached agreement on the implementation plan described in the attached position paper.

Comments from PCA/InterSec have been incorporated as well. The Committee recommends that the SBI adopt the position paper as now presented. The paper discusses findings and conclusions on several broad issues:

- o Rationale for international equity investing
- o Impact of the SBI's investment restrictions
- o Currency risk and options for hedging strategies
- o Selection of an appropriate asset class target
- o Range of investment approaches and management options

The major recommendations for the SBI's international equity program are summarized below:

Asset Class Target:

- o Return Expectation Equal to or greater than domestic stocks, long term.
- o Source Morgan Stanley Capital International index of Europe, Australia and the Far East (EAFE).
- o Weighting Capitalization, subject to restrictions shown below.
- o Currency U.S. Dollar, unhedged.

Restrictions:

- o Active and Passive Eliminate securities that U.S. investors are not allowed to own.

Eliminate securities that are affected by the SBI's policy on liquor and tobacco.

- o **Active Only** Eliminate securities that are affected by the SBI's policy on South Africa and re-weight back to market weights by country.

Hedging Strategy:

- o **Passive** No hedging.
- o **Active** Opportunistic hedging by individual managers.

Management Structure:

- o **Initial** 100% passive.
- o **Longer Term** At least 50% active.

Timing:

- o **Passive** Select manager by September 1992. Begin funding as soon as possible.
- o **Active** Active managers should be added as soon as practicable to enhance returns. Attractive candidates should be identified through an on-going search process.

Each of the above issues is discussed in the attached position paper. However, the two-phase approach recommended to implement the management structure deserves further explanation as part of this Committee Report:

- o **Initial Structure, 100% passive**

Staff and the Committee agree that passive management is an appropriate investment strategy during the start-up phase of the SBI's international program:

- It provides immediate diversification benefits through exposure across international markets.
- Large sums of money can be deployed relatively quickly and at lower administrative cost.
- The returns produced by an index manager will be predictable relative to the SBI's chosen benchmark or target.

- The search process for an index manager will be less complex and time consuming than for multiple active managers. Staff/Committee expect that the Board could hire an index manager as early as September 1992 and begin funding in October 1992.
 - Initial reliance on passive management provides time for the SBI to become familiar with the administrative issues of international investing (global custody and settlement, multi-currency accounting and performance reporting) without the added complexity of a multiple manager structure.
- o Longer Term Structure, at least 50% active**

Active management is very attractive over the longer term. Staff and the Committee agree that the SBI should seek incremental gains/valued added through a variety of active strategies.

- top-down (focus on country allocation)
- bottom-up (focus on stock selection)
- top-down/bottom-up (combination of both disciplines)
- active country/passive stock
- regional specialists
- emerging market specialists

Staff/Committee do not propose a specific allocation to any particular active approach and do not suggest a definite timetable for incorporating any strategy. Rather, they recommend that the SBI begin its search for active managers as soon as practicable. As attractive candidates are identified, they should be incorporated into the SBI's international program. Staff/Committee expect that one or more active managers could be hired by the end of calendar 1992. The SBI should expect to add other candidates during calendar 1993.

Over time, staff/Committee believe that the SBI should seek to have at least 50% of the international allocation actively managed. Before adding active managers above the 50% level, however, the Board should expressly affirm a higher commitment to active management.

RECOMMENDATION:

The Committee recommends that the SBI adopt the attached position paper as its implementation plan for international equity investing in the Basic Retirement Funds. The search for passive and active managers should proceed as expeditiously as possible.

MEMORANDUM

TO: Beth Lehman/MSBI
FROM: Allan Emkin/PCA
RE: International Equity Position Paper
DATE: 8/4/92

The Draft Position Paper (the Paper), dated April 1992, entitled "International Equity Investing for the Basic Retirement Funds" is comprehensive and thoughtful. The structure and implementation of the International Equity Program (the Program) as detailed in the paper (pages 39 and 40) will, over time, accomplish the objectives that are the basis for investing internationally:

- Increased investment opportunity
- diversification
- potential for higher return

The two-phase approach to the management of the international equity assets is, in our opinion, appropriate. The initial passive commitment will assure that the primary objective of the program, diversification of total portfolio risk, is attained at the lowest possible management fee and transaction costs in an expeditious manner. In marked contrast to the distinctions between active international equity managers' styles and disciplines, there are a limited number of qualified passive managers and a limited number of substantive issues that distinguish them. Therefore, the prudent and timely selection of an index fund manager can be accomplished in a brief period of time. Passive management will provide the core of a diversified portfolio.

After (during) the selection of the passive manager, the structure of the active portfolio should be addressed. Once again, we believe that the primary goal is diversification, however, active management should also add value. Therefore the design of the portfolio structure must assure broad market participation across countries, currencies, industries, sectors and stocks. Numerous qualified managers using a broadly diversified international (EAFE) style can accomplish this objective and would be a good first step in the construction of the active portfolio. Both top-down (macro-economic), and bottom-up (micro-economic), and managers that combine both strategies (top-down/bottom-up) have the capacity to add-value around the core passive portfolio.

Consideration of more concentrated management approaches: regional, emerging markets, country funds etc. should be reviewed as the search for the diversified managers continues.

Once the initial funding of the passive manager and the broadly diversified active manager(s) has been accomplished, a review of the active passive allocation should be undertaken. Over the long term a higher allocation to active management is desirable due to our belief that the non-dollar markets are less efficient than the domestic counterparts offering more opportunities to take advantage of superior country, currency and stock selection. Over recent periods this has been clearly indicated.

After detailed review of the Paper in preparation for the interviews by the Board and based upon further discussions between PCA and InterSec along with conversations with the MSBI staff we concur with all of the recommendations found in Figure 16 (page 41) of the Paper.

InterSec Research has provided their comments regarding the Paper under separate cover. PCA concurs with their comments.



Consultants on International Diversification for Pension Managers around the World

TO: Beth Lehman
Assistant Executive Director
Minnesota State Board of Investments

August 5, 1992

FROM: Jim Waterman
Senior Vice President
InterSec Research Corp.

RE: Draft Position Paper, dated April 1992, entitled "International Equity Investing for the Basic Retirement Funds"

Summary

We believe that the working draft is very well done. The only recommendations we had for changes to the draft that would effect how the Board might structure the international program were articulated during our presentation to the Consultant Review Committee on May 13. They were: 1) that every effort should be made to search for and find an active EAFE manager at the same time as the passive EAFE program was implemented; 2) that a dollar cost averaging approach be used to fund the program; and 3) that the staff/IAC begin to consider the alternate ways of structuring the active equity program as it proceeds with the hiring of an active EAFE manager.

In the memo that follows, I will comment on the section of the working draft that reviews the rationale for international investing and the issues that should be addressed.

Comments

Page iii, first paragraph. "Most assets are actively managed by managers who employ a top-down/bottom-up style, with a lesser number of managers who are more purely top-down or bottom-up."

Page 6, Figure 3. The best single measure of risk for a non-U.S. equity portfolio or index is the beta versus the domestic equity market. The beta calculation combines the effects of relative volatility and correlation. We can provide an update of Figure 3 through 1991 (or June 1992, for that matter) that shows return, standard deviation, R^2 , and beta, if you wish.

Page 7. Inclusion of more recent returns obviously changes the supporting evidence but not necessarily the conclusions. We can provide the data, if you wish.



Page 8, first paragraph, last sentence. "Over time, adding international stocks to the Basic Funds offers the potential to both enhance returns ..."

Page 18. You do not make a distinction between sources of return and sources of value added. You might add at the end of page 18,

"Evidence indicates that managers as a group appear to add value from their country allocations. Indeed, conditions for efficiency investing across markets do not exist and at least the larger markets are dominated by local investors."

Pages 19-23, section on currency. We believe that your comments on currency risk are only part of the story. I have attached a recent memo that we wrote on the subject for your review.

Page 28, section on benchmark weights, first paragraph. You might want to add, ... greater importance to countries with large public markets. "There are some advantages of course to this, such as greater liquidity, investibility, and wider choice of issues." Capitalization weighted indices...

Page 31. You might want to say, "the recent decline of the Japanese market has defused the issue of the weighting of Japan in a market capitalization index, at least to some extent. The weight of Japan in the EAFE Index was 38.5%, as of June 1992." The staff and the Investment ...

You mention a recent study that concluded that adjustments for cross ownership would cut Japan's presence in world markets by half. Analysis that I have seen seems to show that cross ownership adjustment doesn't have much effect on weights between Europe and Japan in an EAFE portfolio.

Page 32, Management Options. You might want to add a top-down/bottom-up manager paragraph since most managers combine both, with one or the other disciplines typically being somewhat more important in the investment decision process.

Page 33. InterSec is misquoted in the last paragraph of the page. Based on end 1991 data (see attached chart), "Nearly three quarters of U.S. tax exempt international equities are managed actively, about 22% is indexed, and the remainder is combinations of active and passive strategies. Passive management has grown quite rapidly since the mid-1980's but mixes of active and passive management are relatively new."

Page 35. I have attached an update on manager performance through the end of 1991, if you should wish to use it.



Consultants on International Diversification for Pension Managers around the World

CLIENT MEMORANDUM

TO: InterSec Clients **June 1992**
FROM: James Waterman
RE: TO HEDGE OR NOT TO HEDGE, THAT IS THE QUESTION

- As plan sponsors increase their exposure to international equities, their concern about currency "risk" increases. What confuses the issue is the tendency of some to worry about the volatility of currency returns themselves, rather than the impact of those currency returns on the volatility of the domestic portfolio. That worry leads some sponsors to think they should hedge away some of the "currency volatility."

The appropriate way of looking at this issue is to examine the standard deviation of the domestic equity portfolio (the S&P 500) combined with increasing exposures to EAFE equities – first with full currency exposure (an unhedged portfolio), and then without currency exposure (a portfolio fully hedged back into U.S. dollars). In the analysis that follows, we examine such data. The "hedged" portfolio results shown are actually the local currency returns of EAFE, without the cost of hedging. While hedged returns and local currency returns differ somewhat in the short term, we believe the volatilities of those two series would be virtually identical over the periods measured.

**S&P 500 PORTFOLIO VOLATILITY
 WITH INCREASING EXPOSURE TO EAFE EQUITIES
 (Periods Ending December 31, 1991)**

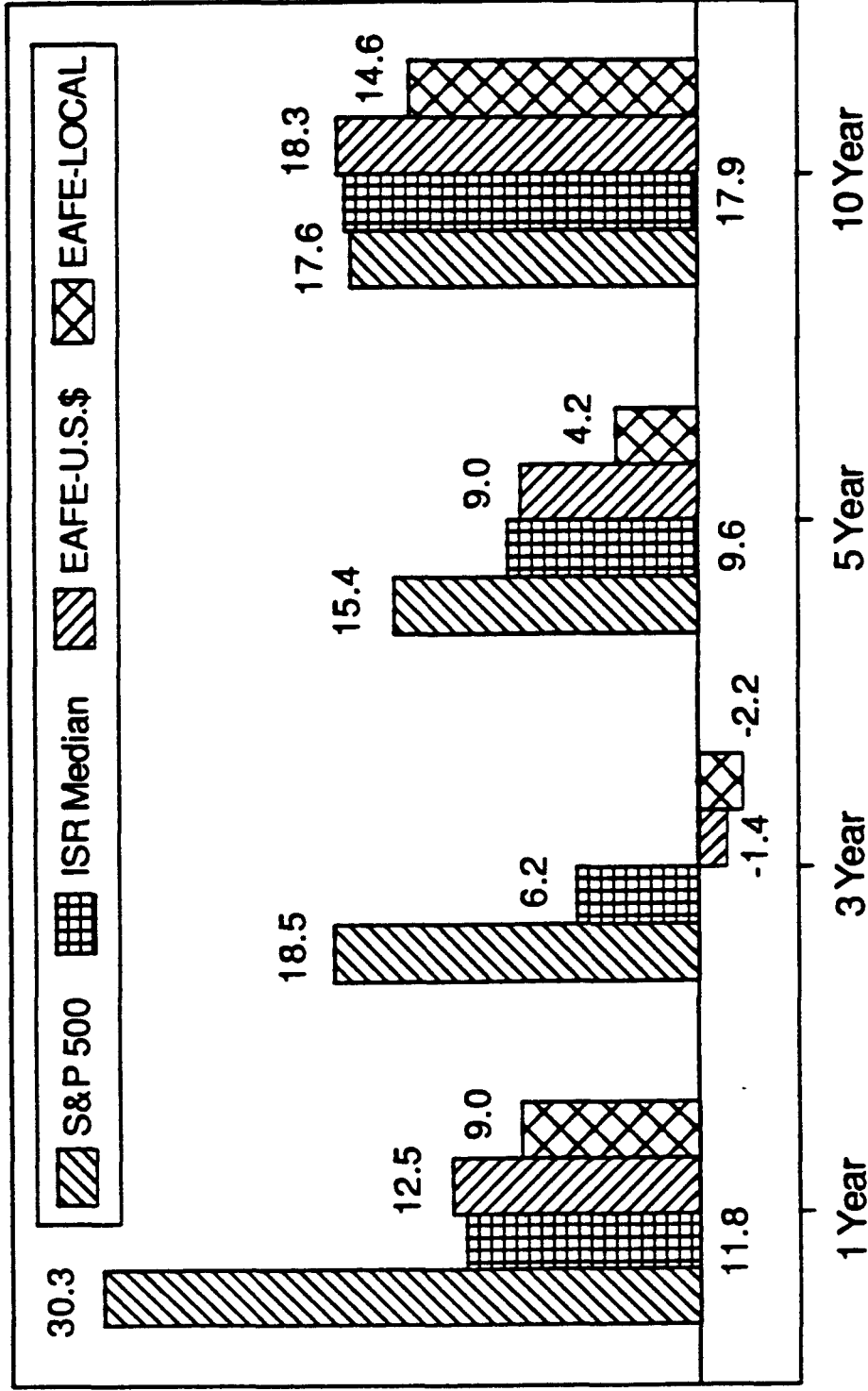
	<u>3 Years</u>		<u>5 Years</u>		<u>10 Years</u>		<u>15 Years</u>	
	Unhedged	Hedged	Unhedged	Hedged	Unhedged	Hedged	Unhedged	Hedged
<u>Standard Deviation</u>								
S&P 500	15.7%	15.7%	18.5%	18.5%	16.6%	16.6%	15.9%	15.9%
With 10% EAFE	15.4	15.4	17.8	17.9	15.9	16.0	15.2	15.2
With 20% EAFE	15.4	15.4	17.4	17.5	15.4	15.4	14.6	14.6
With 30% EAFE	15.6	15.3	17.2	17.2	15.2	15.0	14.3	14.0

Comments:

- (a) International diversification, using an EAFE Index as the investment vehicle, would have provided risk reduction benefits (lower volatility) to S&P 500 portfolio in all periods measured. The degree of risk reduction benefits does vary depending on the percentage invested abroad and the acceptance, or not, of exposure to currency.
 - (b) With an EAFE allocation of 10% or 20%, the volatility of the internationally diversified portfolios is below that of a pure S&P 500 portfolio and risk reduction benefits of an allocation with full currency exposure (unhedged) is the same as the portfolio without currency exposure (fully hedged).
 - (c) For most time periods, an EAFE allocation of 30% would have provided even more risk reduction benefits than an EAFE allocation of 20%. However, a portfolio without currency exposure (fully hedged) would, in most cases, have provided greater diversification benefits (lower volatility) than the unhedged portfolio with full currency exposure.
2. What the numbers suggest is that for most plan sponsors the acceptance of currency exposure does not entail additional risk to the plan, if risk is defined as total volatility. Some plan sponsors whose international exposure is well under the 20% level nonetheless give currency considerable attention. While some of these plan sponsors talk about controlling risk, what they really appear to be trying to do is generate incremental returns (perhaps only by avoiding large downdrafts during times of dollar strength).
3. In the current environment the number of equity managers who actively hedge a portion of their currency exposure is much larger than in years past, and includes a number of managers who did not hedge previously. Other managers, who do not hedge either because it does not fit within their investment philosophy or because they believe that neither they nor anyone else can truly add value, are feeling increasing pressure from their clients and prospects to be active currency managers.
4. Two questions remain: "Can managers add value through active currency management?" And, "If so, which ones?" Looking at the currency impact in an equity portfolio doesn't really answer these questions because 1) looking at whether hedges have added value fails to address the impact of currency on the manager's long positions, and 2) looking at the currency impact in managers' long positions doesn't add much to understanding because those long positions may be driven primarily by market or stock expectations.
5. InterSec's currency management measurement universe, FxPERF, is becoming an increasingly important tool for plan sponsors to judge whether equity (or bond or currency overlay managers) can in fact add value in managing currency. We are beginning to share results with plan sponsors, and they are keenly interested. We have now been running the program for nearly 17 months and have 35 managers participating. For the 17 months ended May, the median manager return was 5.9% versus a global index return of 6.6%. This return is after expenses but before management fees. While the period under measurement is still short, the early evidence suggests that, at a minimum, there is no "free lunch" in the management of currency.

Equity Index and InterSec Universe Returns

Ending December 31, 1991 - Per Cent Per Annum, Compounded



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InterSec Research Corp. Performance Measurement Universes

International

In U.S.

Non U.S. Equity
Global Equity
Non U.S. Fixed
Global Fixed
European Equity
Pacific Basin Equity
Japanese Equity
Currency Management

In Canada

Non U.S. Equity
Global Equity

In Australia

Global Equity
European Equity
Pacific Basin Equity
Japanese Equity

Domestic

In Japan

Tokkin/Fund Trust
Pension/Model

In Canada

Pension

In Switzerland

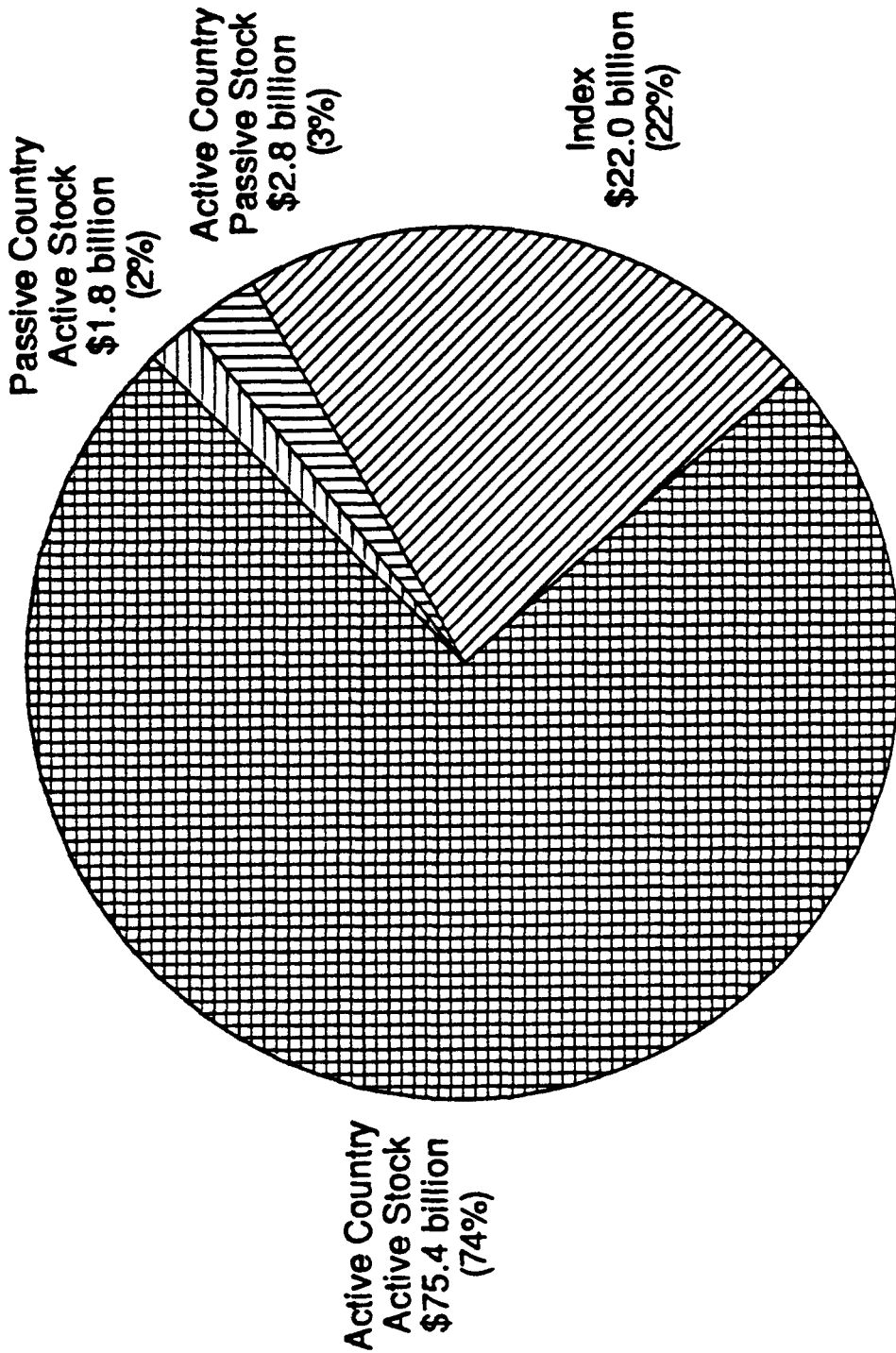
Pension

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Investment Approach: Equities

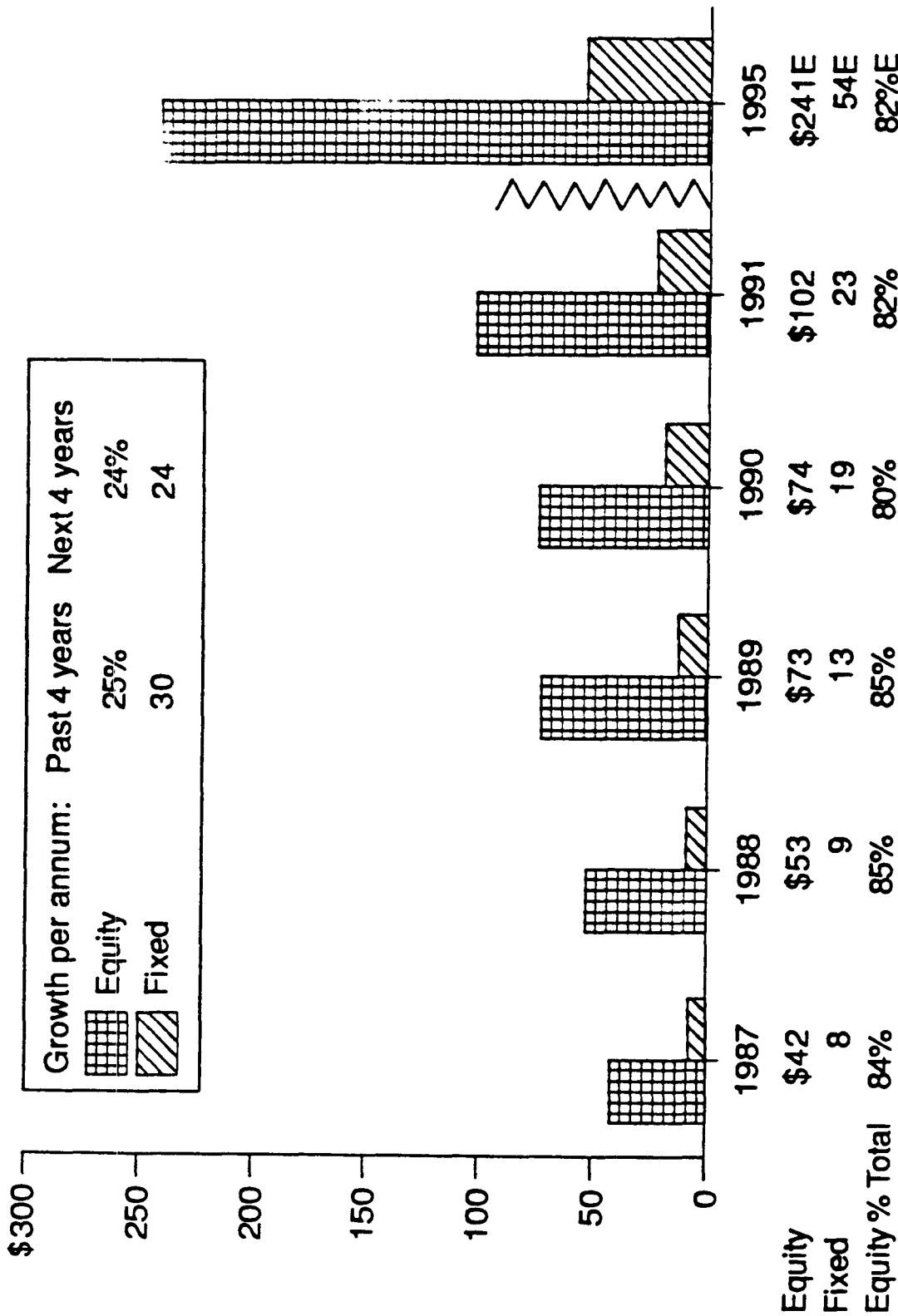
U.S.\$ Tax Exempt Funds - December 1991

Total \$102.0 billion



Equity/Fixed Mandates

U.S. Tax Exempt Assets Invested Overseas (\$ billions)



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INTERNATIONAL EQUITY INVESTING
FOR THE BASIC RETIREMENT FUNDS

Position Paper

August, 1992

EXECUTIVE SUMMARY

This paper reviews the rationale for international investing and highlights a number of issues which should be addressed as the Board develops its investment program for international equities. The major conclusions and recommendations are:

- o The case for international investing lies in three areas: increased investment opportunity, greater diversification and potential for higher return. Nearly two-thirds of the world's market now lie outside the U.S. By diversifying across world markets the Board can both enhance return and reduce risk/volatility of the total portfolio.
- o Japan, U.K., Germany and France comprise about three quarters of the value of the international markets. Fourteen (14) other countries in Europe and the Pacific Basin make up the remainder of the more well established stock markets. Emerging markets in Central and South America, Eastern Europe and Asia are growing rapidly and pose special investment considerations and limitations.
- o The Board's decision to allocate 10% of the Basic Funds to international stocks is well within current practice among pension investors. A strong case can be made for increased commitments in the future as the Board's experience with international investing grows.
- o The Board's South Africa policy will reduce the range investment opportunities but should not diminish the diversification potential of an international program. Restrictions will have either a positive or negative effect on performance, depending on the time period analyzed.
- o Some additional costs are an unavoidable part of transacting in the international markets. All U.S. investors incur withholding taxes on dividend income from foreign securities. In addition, transaction costs and management fees are higher for international portfolios. As with the Board's domestic portfolios, however, all these costs will be deducted before returns are calculated. Income from securities lending on the Board's international portfolio will offset a portion of global custody charges and may even provide a net gain for the portfolio.
- o International stock returns can be attributed to three factors: country allocation, stock selection and currency effect. Historically, about 80% of returns have been due to country or market allocation. In theory, greater inefficiencies in the international markets should offer

opportunity to enhance return through stock selection as well.

- o Investors incur foreign exchange exposure or currency risk when they buy foreign securities. When the dollar strengthens/appreciates, U.S. investors will suffer currency losses on their portfolios. When the dollar weakens/depreciates, U.S. investors see currency gains. Currency hedging can insulate international portfolios from the effect of currency fluctuations. Hedging can reduce risk/volatility of an international equity portfolio substantially. At the same time it will reduce the diversification benefit to some degree.
- o There are strong arguments both for and against systematic currency hedging. At the present time, staff and the Investment Advisory Council (IAC) recommend that the Board allow the individual active managers to use currency management as part of their portfolio management process and not adopt a constant hedging strategy for the entire allocation. The option to hire a single currency overlay manager to address this issue at the total portfolio level deserves further study in the future.
- o There are three sources for broad international index data: Morgan Stanley Capital International Index of Europe, Asia and the Far East (EAFE), Financial Times Europe-Pacific Basin (FT) and Salomon Brothers Frank Russell Europe-Asia (SFR). None of the three sources is ideal. Overall, staff/IAC recommend EAFE as the Board's index source. SFR's greater investability and FT's broader market coverage are not sufficient to overtake EAFE's advantage as the most widely recognized and accepted index source among U.S. investors.
- o Staff/IAC recommend that the Board use a capitalization weighted version of EAFE which has been adjusted to reflect investment restrictions imposed by foreign governments on U.S. investors and the SBI's policies on liquor, tobacco and South Africa. Active managers should use a target index which has been re-weighted back to country market weights in order to minimize the tracking error that will be incurred by the SBI's South Africa policy.
- o International investment managers fall into several broad categories:
 - Top-down (focus on country allocation)
 - Bottom-up (focus on stock selection)
 - Top-down/Bottom-up (combination of both disciplines)
 - Active/Passive (active country, passive stock)
 - Regional Mandates (focus on geographic area)
 - Passive (indexation)

Most assets are actively managed by firms who employ a combination top-down/bottom-up style, with a lesser number of managers who are more purely top-down or bottom up. Active/passive and passive strategies are newer, growing strategies. Regional mandates, either active or passive, take advantage of specialized strengths and skills of certain managers and are gaining interest among plan sponsors.

- o Staff/IAC recommend a two-phase approach to the investment management structure:

- Initial Structure: 100% passive
- Longer Term Structure: at least 50% active

Passive management offers immediate diversification benefits, can be implemented relatively quickly, and provides predictable returns relative to the SBI's chosen benchmark or target. Active managers should be sought as soon as practicable to enhance returns.

- o An index manager could be selected as early as September 1992. Active manager searches should begin as soon as possible with the goal of adding one or more managers by December 1992. Additional manager selections are likely during calendar 1993.

BASIC RETIREMENT FUNDS
INTERNATIONAL EQUITY PROGRAM
SUMMARY OF RECOMMENDATIONS

Asset Class Target:

- o Source Morgan Stanley Capital International Index of Europe, Australia and the Far East (EAFE)
- o Weighting Capitalization, subject to restrictions shown below
- o Currency U.S. Dollar, Unhedged

Restrictions:

- o Active and Passive eliminate securities that U.S. investors are not allowed to own
eliminate securities that are affected by the SBI's policy on liquor and tobacco
- o Active only eliminate securities that are affected by the SBI's policy on South Africa and re-weight back to market weights by country

Hedging Strategy:

- o Passive no hedging
- o Active opportunistic/tactical hedging by individual managers

Management Structure:

- o Initial 100% passive
- o Longer Term at least 50% active

Timing:

- o Passive select manager by September 1992
- o Active begin search process as soon as possible*

* Active managers will be added as soon as practicable. Attractive candidates will be identified through an on-going search process during 1992-93.

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INTRODUCTION

At its meeting on September 11, 1991, the State Board of Investment (Board) approved the addition of international equities to the Basic Retirement Funds and directed staff, in conjunction with the Investment Advisory Council (IAC), to develop an appropriate implementation plan for the Board's consideration. This position paper reviews the rationale for international investing and highlights a number of issues which should be addressed as the Board develops its investment program for international equities. Where appropriate, staff/IAC recommendations on specific issues are presented.

The paper is organized around the following questions:

- o What is the rationale for international investing?
- o How much should be allocated to international stocks?
- o How do South Africa restrictions affect international portfolios?
- o How do the costs of international portfolios and domestic portfolios compare?
- o What is the relative importance of country allocation, stock selection and currency management in actual returns?
- o Should currency risk be controlled?
- o Are adequate benchmark indices available?
- o What management options are available?

WHY INTERNATIONAL?

The case for international investing is well established. Its attractiveness is three-fold:

- o increased investment opportunity
- o diversification
- o potential for higher return

Today, more than half the value of the world's capital markets lies outside the U.S. As shown in Figure 1, the U.S. stock market made up nearly two thirds of the value, or capitalization, of the world stock markets in 1970. By 1990, this proportion was reversed; approximately two thirds of stock market capitalization is now in non-U.S. markets. This change means that many of the world's largest corporations are based in Europe or the Pacific Basin. In addition, certain industries (e.g. consumer electronics) have little presence among U.S.-based companies. Expanding the investment universe beyond the U.S., therefore, substantially increases investment opportunity.

Where are these increased opportunities? The most widely quoted international index is the Morgan Stanley Capital International index of Europe, Australia and the Far East (EAFE). As shown in Figure 2, four (4) countries (Japan, U.K., Germany, and France) comprise more than three quarters of the market value of the established international stock markets. Fourteen (14) other countries in Europe and the Pacific Basin make up the remainder. While new stock markets in Central and South America, Eastern Europe and Asia are developing rapidly, these less well established markets are usually referred to as "emerging markets" and are not included in EAFE. Staff believes that emerging markets have unique investment opportunities and limitations and therefore should be considered separately from the more established international markets. These markets should not be ignored, however. Over the next decade their combined share of the international markets could grow to over 10%.(1)

FIGURE 1

World Market Capitalization

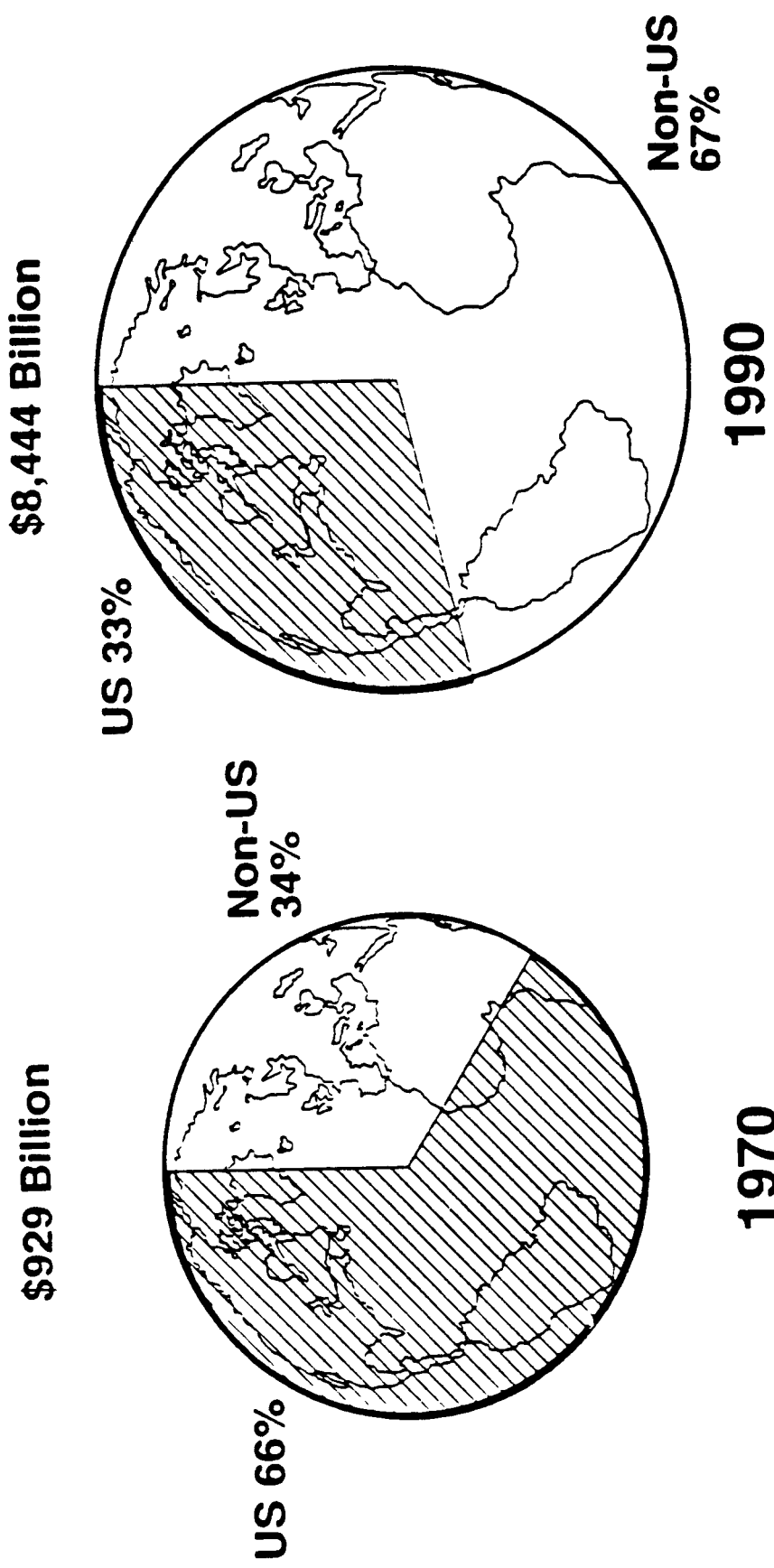


FIGURE 2

MORGAN STANLEY CAPITAL INTERNATIONAL INDEX
OF EUROPE, AUSTRALIA AND THE FAR EAST
EAFE*

<u>By Country Weights</u>	<u>12/31/89</u>	<u>12/31/90</u>	<u>12/31/91</u>
Japan	61.03%	51.37%	49.50%
United Kingdom	12.75	17.82	18.25
Germany	5.77	6.83	6.58
France	4.86	5.61	5.85
Switzerland	1.91	2.56	2.96
Netherlands	2.37	2.83	2.94
Australia	2.13	2.26	2.74
Italy	2.41	2.50	2.22
Spain	1.62	1.81	2.05
Hong Kong	1.06	1.43	1.95
Singapore	0.94	1.13	1.25
Belgium	1.00	1.24	1.17
Denmark	0.59	0.79	0.85
Sweden	0.65	0.70	0.64
Austria	0.33	0.51	0.49
Norway	0.28	0.37	0.30
New Zealand	.24	0.18	0.22
Finland	0.04	0.04	0.03
Total	100.00%	100.00%	100.00%

By Region

Europe	34.60%	43.63%	44.34%
Pacific Basin	65.40	56.37	55.66
Total	100.00%	100.00%	100.00%

* Includes only those companies which U.S. investors may purchase.

Source: Morgan Stanley Capital International
Richards & Tierney

Despite growing economic integration, global events still impact markets differently. For example, the stock market "crash" in October 1987 affected stock markets all over the world but forced greater declines in the U.S. than most other markets. A more recent example comes from the events leading up to the Gulf War in the summer of 1990 when concerns about an interruption in oil supplies impacted the Japanese stock market more severely than other markets. This was due, in part, to Japan's greater dependence on imported oil.

These examples suggest that investments in non-U.S. securities still offer diversification benefits despite the growing trend toward globalization. Figure 3 presents annualized return and risk data for U.S. and international markets as well as the corresponding correlation coefficient. As shown, the correlation between U.S. and international markets actually declined over the period. The data indicate that diversification potential from international investing remains strong.

Over time, certain regions of the world are likely to become more highly integrated. European countries are breaking down trade barriers and may move toward a common central bank and single currency. Growing trade and investment among countries in the Pacific Basin may bring more economic unity to that region as well. However, full integration of economic policies and financial markets does not appear imminent and world markets are not likely to move in tandem in the near future. Diversification across markets takes advantage of this phenomenon and offers a

FIGURE 3

U.S. VS NON U.S. EQUITIES
 ANNUALIZED RISK, RETURN AND CORRELATION

<u>10 Years</u> <u>Ending</u>	U.S.		Non-U.S.		<u>Correlation (2)</u>
	<u>Return</u>	<u>Risk(1)</u>	<u>Return</u>	<u>Risk(1)</u>	
1981	6.5	17.5	10.6	19.1	.54
1982	6.7	18.6	7.0	19.6	.55
1983	10.6	18.2	11.1	18.4	.59
1984	14.8	15.6	14.8	17.5	.44
1985	14.2	14.0	16.4	15.3	.32
1986	13.7	14.4	22.3	17.3	.31
1987	15.2	17.0	22.9	18.9	.42
1988	16.2	16.5	22.4	19.4	.40
1989	17.4	16.6	22.9	19.6	.36
1990	13.8	17.1	17.2	21.9	.41

(1) Standard Deviation

(2) R-squared, Coefficient of Determination

Source: Frank Russell

consistent way to control risk and dampen volatility of the total portfolio.

Historical returns have made international investing very attractive:

	<u>U.S. Stocks</u>	<u>International Stocks</u>
Last 20 Years	11.2%	15.4%
1970's	5.9	10.1
1980's	17.6	22.8

Source: Ibbottson Associates

Generally, the higher historical returns from international markets are attributed to the higher growth rates of countries outside the U.S. Recent gross domestic product (GDP) growth for major economies is shown below:

	<u>Annual GDP Growth 1988 - 1990</u>
Japan	5.5%
Germany	4.1
France	3.3
Italy	3.3
U.S.	2.6
U.K.	2.5

Source: PanAgora Asset management

Many observers believe that European and Pacific Basin economies will continue to outpace the U.S. in the 1990's. International stock investments provide a means to participate in these higher growth rates and offer the potential for higher returns than the U.S. market.

Despite the obvious attraction of higher returns, diversification remains the strongest argument for international investing. Non-U.S. securities will continue to provide counter cyclical investment returns to the U.S. market. Over time, adding international stocks to the Basic Funds offers the potential to both enhance returns and reduce the risk/volatility of the total portfolio.

HOW MUCH SHOULD BE ALLOCATED?

The Board has approved a 10% allocation to international stocks in the Basic Retirement Funds. The total fund asset allocation targets for the Basic Funds are:

Equities		60%
Domestic Stocks	50	
International Stocks	10	
Alternative Investments		15
Private Equity		
Real Estate		
Fixed Income		25
Domestic Bonds	24	
Cash Equivalents	1	
		<u>100%</u>

How does the 10% international stock target compare to other public and private pension fund investors? A 5-10% allocation is typical among large pension plans at the present time but many plans are considering increasing their allocation in the 10-20% range.(2) A list of some of the large public funds who are investing internationally is included on Appendix A. The allocation to international securities among these funds ranges from 3% to 20%.

Figure 4 shows the effect of adding non-U.S. stocks to an equity portfolio for 15 year periods ending 1983 through 1990. Each line represents the risk/return relationship for a stock portfolio with 0, 10, 20 and 30% international exposure. In each time period, increasing international stocks reduced volatility and increased return. With 10% of the total Basic Funds allocated to international, the analogous exposure for the Basic Funds' stock segment is about 17% ($10 - 60 = 16.7\%$). Computer driven optimization models suggest that international allocations substantially above the 30% level will provide continued risk/return benefits.(3)

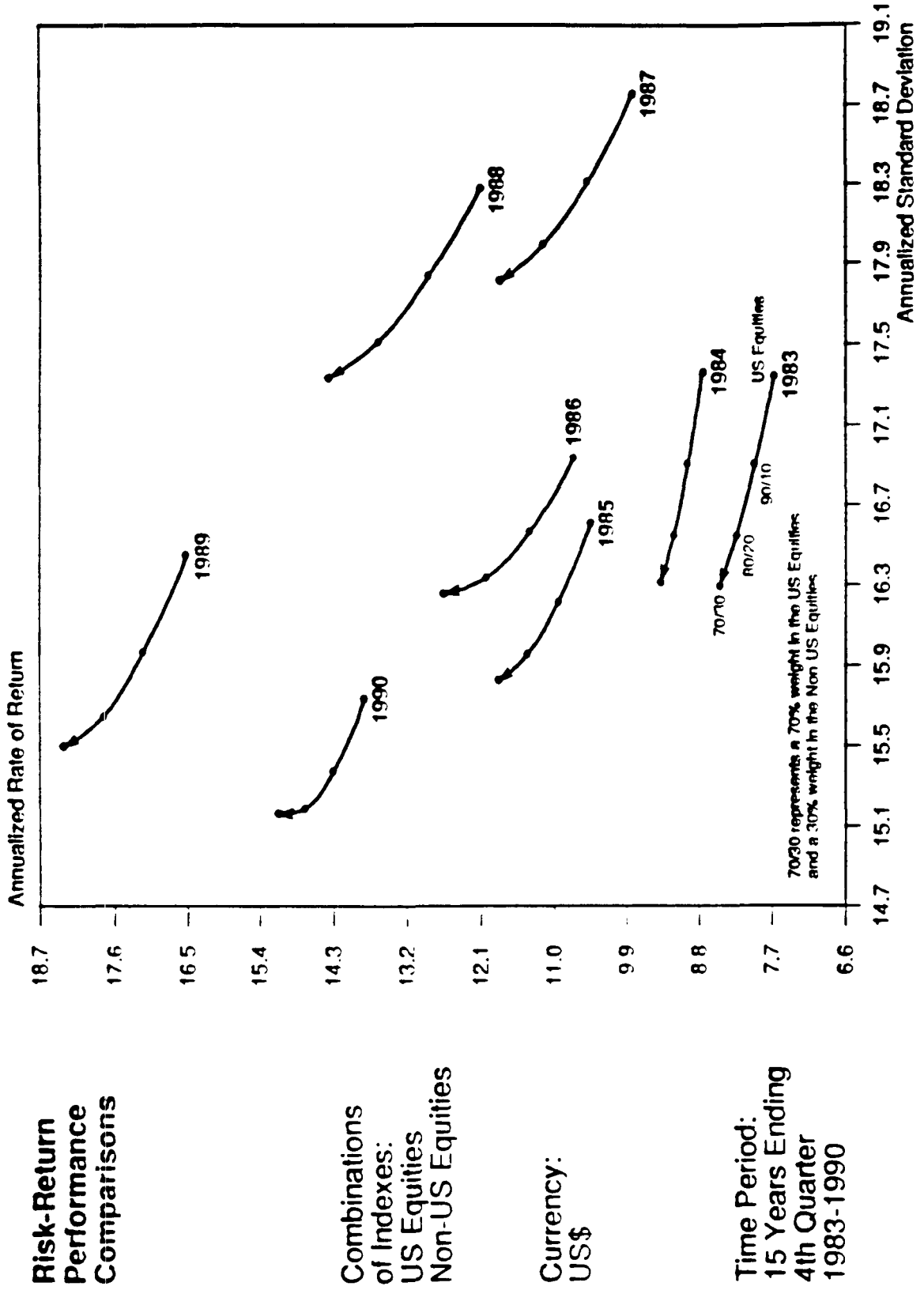
The Board's decision to allocate 10% of the Basic Funds to international equities clearly is within the range of current practice among pension plan sponsors. While a higher allocation could be justified based on risk/return analysis, staff believes that the 10% target represents a prudent commitment to a new asset class within the Basic Funds. As the Board gains greater experience with international investing, it may be appropriate to increase the allocation target in the future.

WHAT IMPACT DO SOUTH AFRICA RESTRICTIONS HAVE?

The Board's resolution on South Africa applies the same restrictions to foreign and domestic holdings in all of the Board's actively managed stock portfolios.(4) Under this policy, the Board's active international stock managers will be directed to refrain from purchasing stock of companies with direct investment in South Africa unless the manager determines that

FIGURE 4

Long Term: Increased Return and Reduced Risk



failure to complete a purchase would be a breach of the manager's fiduciary responsibility.

Staff relies on information compiled by the Investor Responsibility Research Center (IRRC) in Washington D.C. to identify U.S. companies with direct investment in South Africa.(5) IRRC maintains a similar service for international companies and staff has access to this information through the Board's subscription to IRRC's South Africa Review Service. A list of publicly traded international companies with direct investment in South Africa is in Appendix B.

A South Africa restriction has two impacts on either domestic or international portfolios:

- o It reduces the range of investment opportunities.
- o It can have either a positive or negative affect on performance, depending on the time period examined.

As shown in Figure 5, about 27% of the market capitalization, or value, of EAFE is eliminated when South Africa-related securities are excluded. The impact is not uniform across all countries, however. For example:

- o The United Kingdom is reduced by about 55%
- o Germany is reduced by about 82%
- o Japan is reduced by about 9%

As a result, South Africa restrictions will increase exposure to the Pacific Basin/Japan, unless country weights are adjusted.

South Africa restrictions will alter industry diversification as well. A "South Africa Free" EAFE index shows increased exposure to financials, utilities and banks and a decrease in the

FIGURE 5

THE IMPACT OF SOUTH AFRICA HOLDINGS ON THE EAFE INDEX
12/31/91

	<u>EAFE</u>	South Africa Free <u>EAFE</u>
Number of companies	1,052	864
% capitalization of index	100%	72.9%

	<u># Companies in EAFE</u>	<u># Companies Excluded</u>	<u>Market Capitalization Removed</u>
Australia	54	4	23.4%
Austria	20	1	3.3
Belgium	20	1	7.8
Denmark	26	3	17.5
Finland	29	0	0.0
France	71	9	21.1
Germany	60	31	82.0
Hong Kong	35	0	0.0
Italy	65	9	40.4
Japan	266	16	8.5
Netherlands	23	4	51.2
New Zealand	8	0	0.0
Norway	30	1	1.7
Singapore	54	0	0.0
Spain	38	0	0.0
Sweden	35	7	15.6
Switzerland	71	45	90.0
U.K.	147	57	55.1
Total	1,052	188	27.1%

Sources: Morgan Stanley Capital International
Richards & Tierney

energy, health and consumer goods sectors. The remaining securities in the index have a greater bias toward small company stocks and growth oriented companies than an unrestricted EAFE index. (6)

Return data for South Africa restricted indices have been available for only three to four years; too short a time period for meaningful analysis. Historical returns can be approximated, however, if an index is carefully reconstructed to reflect South Africa restrictions over time. In 1990, J.P. Morgan completed such a study using return data from 1982-1988. (7) Richards & Tierney used a similar methodology to extend the data through 1991. Three sets of returns were calculated and compared:

- o Market returns calculated using a universe similar to EAFE (Unrestricted).
- o Returns calculated after South Africa restricted securities were excluded (Restricted).
- o Returns calculated after restricted securities were excluded but country weights were adjusted back to their original market weights (Restricted and Reweighted).

The results of the analysis are shown in Figure 6:

- o South Africa restrictions marginally raised returns over the time period studied. The impact tended to be positive from 1982-89 and negative from 1989-91 relative to an unrestricted index.
- o Restrictions are likely to increase the volatility of returns, unless the country weights are adjusted (Unrestricted 19.7; Restricted 21.1; Restricted and Reweighted 19.8).
- o Restrictions will cause significant year-to-year tracking error relative to EAFE. The SBI could easily experience returns that deviate from the index by up to ± 8 percentage points or more in any year due to South Africa restrictions. If the index is re-weighted, the expected tracking error drops to within ± 4 percentage points but is still significant.

Diversification potential is usually measured by correlation data. Correlation coefficients for most asset classes range between 0 and 1; the lower the number, the stronger the diversification effect. The J.P. Morgan study provided the following correlation data:

Correlation of Monthly Returns
1982-89

	<u>U.S.</u>	<u>Non</u>	<u>Restricted</u>	<u>Re-weighted</u>
U.S.	1.00			
Non-U.S.	0.45	1.00		
Non-U.S. Restricted	0.38	0.98	1.00	
Non-U.S. Restricted/and Re-weighted	0.42	0.99	0.99	1.00

Source: J.P. Morgan

As shown above, the correlation between non-U.S. portfolios is high (0.98-0.99). This indicates that non-U.S. portfolios with or without restrictions will move up and down together. The correlation between the non-U.S. portfolios and the U.S. portfolio is fairly low (0.38-0.45). This indicates South Africa restrictions do not diminish the diversification potential of an international portfolio.

Staff concludes that the Board's South Africa restrictions will alter the composition of its international portfolios relative to a broad index. While the resulting performance differences could be either positive or negative, the deviations are likely to be material on a quarterly or yearly basis. Therefore, staff recommends that the Board utilize a benchmark

FIGURE 5

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Belgium	20	1	7.8
Denmark	26	3	17.5
Finland	29	0	0.0
France	71	9	21.1
Germany	60	31	82.0
Hong Kong	35	0	0.0
Italy	65	9	40.4
Japan	266	16	8.5
Netherlands	23	4	51.2
New Zealand	8	0	0.0
Norway	30	1	1.7
Singapore	54	0	0.0
Spain	38	0	0.0
Sweden	35	7	15.6
Switzerland	71	45	90.0
U.K.	147	57	55.1
Total	1,052	188	27.1%

Sources: Morgan Stanley Capital International
Richards & Tierney

FIGURE 6

IMPACT OF SOUTH AFRICA RESTRICTIONS ON RETURNS (1)

	Non-U.S. Markets <u>Unrestricted</u>	(2) South Africa <u>Restricted</u>	(3) South Africa Restricted and <u>Re-weighted</u>
1982	-0.08%	-3.31%	-1.19%
1983	23.40	24.94	23.41
1984	8.86	12.93	10.83
1985	58.40	56.87	62.25
1986	67.61	78.49	67.34
1987	25.14	30.25	26.28
1988	27.16	29.41	27.10
1989	11.26	7.92	10.52
1990	-23.85	-27.74	-23.48
1991	12.62	12.14	10.67
Annualized	18.39%	18.86%	18.61%
Standard Dev.	19.56	21.12	19.83
Estimated Tracking Error	--	<u>± 7.54</u>	<u>± 3.77</u>

(1) Data obtained from J.P. Morgan using BARRA returns 1982-88 and from Richards & Tierney using FT Actuaries returns from 1989-91.

(2) Returns calculated after South Africa restricted securities were removed.

(3) Returns calculated after South Africa securities were removed but country weights were adjusted back to market weights.

Source: Richards & Tierney

for its active managers that is "South Africa Free" and reweighted back to market weights on a country by country basis.

WHAT ARE THE COSTS?

The costs of investing internationally are higher than the costs for domestic portfolios in four key areas:

- o withholding taxes
- o trading/transaction costs
- o management fees
- o custody charges

Foreign investors must pay withholding taxes on dividend income imposed by other governments. While the exact amount depends on the different tax treaties between the U.S. and each country, the average non-reclaimable tax is 15% of dividend income received. Aggregate dividend yield on international portfolios is less than 2% so the net tax amounts to 25-30 basis points.(8)(9) Domestic investors do not pay this tax in their home markets.

Transaction costs, i.e. commissions and stamp taxes, are also higher, although these costs are coming down in most markets. Withholding taxes and higher transaction costs are an unavoidable part of doing business in the international markets. As with domestic portfolios, however, manager returns are calculated after these costs have been taken into account.

Investment management fees for actively managed portfolios are about 50-60 basis points higher than for domestic portfolios. The higher fees are assumed to reflect the higher costs of international research and global communication. The management

fees for passive/index investing have been about 15-20 basis points higher for international portfolios. As with the Board's domestic portfolios, however, management fees will be deducted before returns are calculated.

Custody costs are higher for international portfolios as well. Global custody is a complex process which involves a network of local subcustodians. The personnel costs associated with an effective network along with increased record keeping demands have kept global custody costs high relative to U.S.-only portfolios. It should be noted that income generated by securities lending on international portfolios can offset a large portion of these costs and may even provide a net gain for the portfolio.

A summary of all these costs is shown below:

<u>Costs That Are Deducted Before Returns are Calculated</u>	(Basis Points) <u>U.S.</u>	(Basis Points) <u>International</u>
o Withholding taxes	----	25-30
o Transaction costs	less than 20	60 or more
o Management fees		
Active	30-50	50-70
Passive	2-8	15-30
<u>Costs That May Be Offset By Income From Securities Lending</u>		
o Custody charges	5-6	20-25

Sources: First Chicago Investment Advisers
Grantham, Mayo, Van Otterloo & Company

Higher costs are, for the most part, an unavoidable part of transacting in the international markets. As with the Board's

domestic portfolios, most of these costs will be deducted before returns are calculated on the Board's portfolio. In addition, income from securities lending may provide a net gain for the portfolio.

WHAT ARE THE SOURCES OF RETURN?

The actual returns of international stock portfolios can be attributed to a combination of three factors:

- o Country allocation
- o Stock selection
- o Currency effect

Overall, country allocation or market selection decisions dominate actual returns. This is demonstrated by the wide range between the best and worst performing countries in the EAFE index over the last 10 years:

<u>Year</u>	<u>Best Performing Market</u>	<u>EAFE</u>	<u>Worst Performing Market</u>
1981	38%	-2%	-29%
82	24	-2	-44
83	81	24	-7
84	46	7	-36
85	176	56	-23
86	121	69	-2
87	56	25	-24
88	57	28	-13
89	104	11	-9
90	10	-23	-37

Source: Boston International Advisors, Inc.

Empirical studies confirm that, on average, 80% of overall international portfolio return comes from country or market selection allocation. (10) (11) Evidence indicates that managers as a group appear to add value from their country allocations.

Indeed, conditions for efficiency across markets do not appear to exist and at least the larger markets are dominated by local investors.

Stock selection also impacts portfolio returns. International markets are considered less efficient than the U.S. market. The lack of uniform accounting and disclosure standards in international markets are usually cited as the major contributors to inefficiency. In theory, international active managers should be able to exploit these inefficiencies and generate value added returns more easily than domestic managers.

The difference between return measured in U.S. dollars and return measured in local currency is the currency effect. As shown below, currency impact can help or hurt performance over the short term.

EAFE Index Return

	<u>U.S. Dollar</u>	<u>Local Currency</u>
1990	-23.4%*	-29.8%
1989	10.5	21.5*
1988	28.3	33.7*
1987	24.6*	-2.3
1986	69.4*	42.5
1985	56.2*	28.5
1984	7.4	20.9*
1983	23.7	31.6*
1982	-1.9	9.0*
1981	-2.3	10.8*

* Better performer

Source: Cambridge Associates, Inc. based on data from Morgan Stanley Capital International Perspective

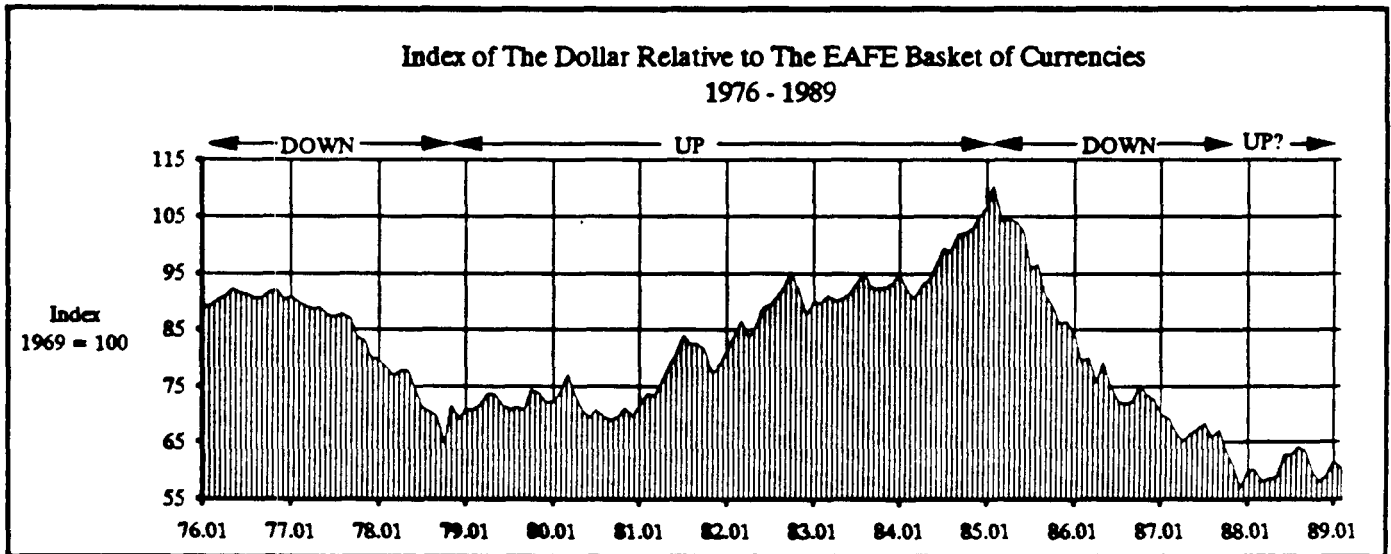
SHOULD CURRENCY RISK BE CONTROLLED?

Foreign securities are denominated in their own currencies. As a result, investors incur foreign exchange 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 currency exchange rate will move up or down from the rate in effect at the time of purchase. When these changes are translated back into dollar terms, the portfolio will register gains or losses solely due to the fluctuation in exchange rates. When the dollar strengthens/appreciates relative to other currencies, U.S. investors will suffer currency losses on their international portfolios. When the dollar weakens/depreciates U.S. investors see currency gains.

Time horizon is extremely important in analyzing the significance of foreign exchange movements on returns. As shown in Figure 7, the U.S. dollar had two major down cycles and one major up cycle between 1976 and 1988. When examined over both an up and down cycle, cumulative returns are much the same whether measured in dollar terms or local currency (see Figure 8). Before both the up and down cycles have been completed, however, dollar returns can differ markedly from local returns. These differences can be difficult for investors to tolerate since currency cycles can be protracted.

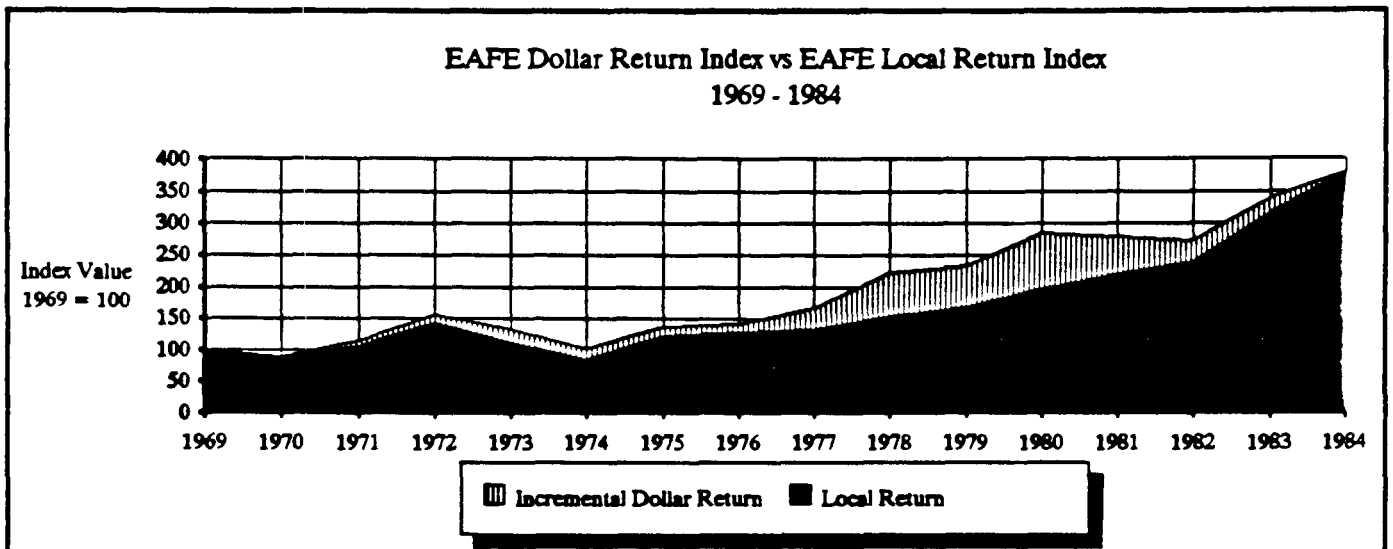
Currency hedging can insulate international portfolios from the effect of currency fluctuations. Typically, the hedge is accomplished by using the forward currency markets to lock-in a

FIGURE 7



Source: Callan Associates

FIGURE 8



Source: Callan Associates

fixed exchange rate for a specified period of time. By removing currency exposure, the risk/volatility of an international equity portfolio can be reduced by 15-30%. Since it is possible to hedge currency with fairly low transaction costs (estimates are usually cited in the range of 25-30 basis points per year), hedging is considered a very cost effective risk reduction technique by many investors.

The reduction in risk/volatility afforded by currency hedging is not entirely free, however:

- o When the fluctuations associated with currency exposure are removed, international securities behave more like domestic securities and some diversification benefit is lost.
- o Depending on the frequency and aggressiveness of the hedging strategy, transactions costs can erode total portfolio return. If the hedging strategy is carried out by a manager specifically hired for this purpose, incremental management costs will be incurred as well.

Several prominent theorists and practitioners advocate viewing currency risk as an active decision that should be explicitly controlled.(12) In effect, currency can be treated as a separate asset class and pension plan sponsors have a variety of options in dealing with it:

- o Systematic Approach

This approach involves hedging all currency exposure, or a constant proportion of the exposure, at all times. The plan sponsor can implement the hedge itself or hire a currency overlay manager to maintain the hedge. This strategy has the greatest potential for risk reduction since the currency exposure is managed on a consistent basis. While this strategy has been the subject of a great deal study recently, a very small number of plan sponsors have taken this approach to date.(13)

- o Opportunistic Approach

This strategy allows selective hedging based upon a currency forecast and is most often used when the goal of currency management is enhanced return. Tactical hedging can be implemented by a single currency overlay manager or left to the judgement of individual portfolio managers. Since individual managers vary greatly in the emphasis they place on currency management, the latter approach may result in uneven attention to currency exposure.

Currency hedges can be implemented using a single currency, all currencies or a basket of currencies. Nearly all exposure can be covered using a few major currencies: U.S. Dollar, Pound Sterling, Japanese Yen, Deutschmark. As a result, most hedging is accomplished by transacting in those few currencies.

There are strong arguments on both sides of the currency hedging question. The risk reduction potential of a systematic approach is significant. On the other hand, the long time horizon and relatively high risk tolerance of the Basic Retirement Funds make the portfolio an ideal candidate for opportunistic hedging. At this time, staff and the Investment Advisory Council (IAC) recommend that the Board design its investment structure around an opportunistic approach to currency hedging. At the outset, the individual active managers should be allowed to use currency management as part of their portfolio management process. The option to hire a single currency overlay manager to address this issue at the total portfolio level deserves further study.

ARE ADEQUATE INDICES AVAILABLE?

There are three sources for broad international indices available to plan sponsors:

- o Morgan Stanley Capital International's Europe, Australia and the Far East (EAFE).
- o Financial Times Europe-Pacific Basin (FT)
- o Salomon Brothers Frank Russell Europe-Asia (SFR)

EAFE pre-dates the other two and was created before indexing was contemplated for international portfolios. It became the first source for research and comparison of international markets and managers. FT sought to aid in comparison and research, but also aimed to provide an index that was more diversified and more easily applied to indexation strategies. SFR tried to create a broad index that traded easily in order to focus on the problems associated with creating and maintaining index funds.(14)

None of the three provides an ideal index; the choice of one over the other must relate to the plan sponsor's judgement about relative importance of the following factors:

- o construction rules
- o coverage and diversity
- o investability and cost
- o quantity and availability of data

All three indices are capitalization weighted, that is, issues in the index are weighted according to the value of their outstanding stock. While Modern Portfolio Theory holds that the most efficient and representative portfolio is capitalization weighted, this methodology poses several problems for international indices:

- o It gives greater importance to countries with highly developed public equity markets.
- o It overstates the value of some corporations because of "cross ownership" and results in some degree of double counting. (Cross ownership refers to the fact that many

international corporations own significant portions of the stock of other companies.)

- o It overstates the value of shares actually available due to government restrictions on foreign ownership or to the lack of liquidity on very closely held companies.

EAFE, FT and SFR differ in the way they address the latter two issues. A summary of their characteristics is shown in Figure 9:

- o EAFE attempts to include at least 60% of each industry in each country in its index. There is no adjustment for cross ownership, closely held companies or non-purchasable shares.
- o FT includes a significantly higher number of issues in each country and is therefore broader than EAFE. While it does not adjust for cross ownership, FT excludes stock which cannot be purchased by U.S. investors and makes adjustments for closely held companies.
- o SFR has fewer issues than either EAFE or FT because it focuses on larger capitalization companies. SFR adjusts for restricted stocks and closely held companies and is the only one of the three indices that attempts to compensate for cross holdings.

In terms of coverage and diversity, FT appears to be superior to the others. It includes a greater number of issues and its country by country sub-indices are better proxies for individual markets. EAFE ranks second in this area while SFR is the narrowest of the benchmarks. While all three indices have a large capitalization bias, FT captures a greater number of smaller issues and is thus more representative of the entire international market.

SFR ranks highest on investability. Its small number of issues and its concentration in larger, more liquid names makes it the lowest cost index in terms of trading and tracking. FT likely will be the most costly since more and smaller issues

FIGURE 9

COMPARISON OF INDEX SOURCES

	<u>EAFE</u>	<u>SFR</u>	<u>FT</u>
Adjustments for			
- cross ownership	no	yes	no
- closely held co's	no	yes	yes
- non-purchasable shares	no	yes	yes
Countries	18	20	20
Companies	981	541	1,683
Total Capitalization	\$2.9 trillion	\$2.2 trillion	\$3.8 trillion
Mean Capitalization	3.0 billion	4.0 billion	2.3 billion
Median Capitalization	1.0 billion	1.8 billion	0.7 billion
Large Cap > \$5 billion	63%	70%	59%
Medium Cap 0.5 - 5 billion	55	33	39
Small Cap < 0.5 billion	3	2	2
Correlation			
EAFE	---	.994	.997
SFR	.994	---	.989
FT	.997	.989	---
Standard Dev.	20.6%	21.2%	20.8%

Source: Bankers Trust, September 1988

Staff Ranking (1 = highest)			
- coverage	2	3	1
- investability/cost	2	1	3
- history/amount of data	1	2-3	2-3

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

SFR - Salomon, Frank Russell Index

FT - Financial Times - World Actuaries Index

FIGURE 9 (con't)
COMPARISON OF INTERNATIONAL INDICES

<u># of Securities</u>	<u>SFR</u>	<u>MSCI</u>	<u>FT</u>
Japan	163	239	457
UK	70	132	327
Germany	27	58	99
France	57	84	126
Italy	30	67	102
Netherlands	13	22	38
Australia	39	65	88
Switzerland	21	50	55
Sweden	16	36	35
Hong Kong	18	31	46
Spain	20	32	42
Belgium	14	20	63
New Zealand	8	15	21
Singapore/Malaysia	14	55	62
Denmark	9	26	39
Norway	8	17	25
Ireland	4	-	17
Austria	5	11	16
Finland	2	21	25
Luxembourg	3	-	-
As of 6/30/88			
<u>% Capitalization</u>	<u>SFR</u>	<u>MSCI</u>	<u>FT</u>
Japan	66.0%	62.7%	64.9%
UK	14.5	13.0	14.6
Germany	3.8	4.3	4.3
France	3.1	3.6	3.2
Italy	1.7	2.1	2.1
Netherlands	2.3	2.1	1.8
Australia	2.1	2.4	2.3
Switzerland	1.4	2.4	1.5
Sweden	0.5	1.3	0.4
Hong Kong	1.0	1.3	1.2
Spain	1.5	1.6	1.5
Belgium	0.7	0.9	1.0
New Zealand	0.2	0.3	0.2
Singapore/Malaysia	0.3	0.9	0.3
Denmark	0.2	0.4	0.3
Norway	--	0.2	0.1
Ireland	0.2	--	0.2
Austria	*	0.1	0.1
Finland	*	--	0.1
Luxembourg	*	--	--
As of 6/30/88			
* Less than 0.05%			

Source: Bankers Trust
Data as of 6/30/88

SFR Salomon Frank Russell
MSCI Morgan Stanley Capital Int'l EAFE
FT Financial Times

translate into higher commissions and higher custody costs. FT's larger number of names present some additional challenges when passive managers attempt to replicate the index through sampling. EAFE appears somewhere between SFR and FT on the investability scale.

EAFE has a clear lead in terms of accessibility to data. Historical records on EAFE cover two decades while FT and SFR were created within the last few years. As a result, EAFE has a wealth of fundamental data that the other two indices cannot match.

Overall, staff and the Investment Advisory Council (IAC) believe that EAFE is strongest index source for the Board's international program at this time. The benefits offered by FT's broader market coverage and SFR's greater investability are not sufficient to overtake EAFE's advantage as the most widely recognized and accepted index source among U.S. investors.

HOW SHOULD THE BOARD'S INTERNATIONAL BENCHMARK BE WEIGHTED?

As cited in the previous section, capitalization weighting of an international index gives greater importance to countries with large public markets. There are some advantages to this in terms of greater liquidity, investibility and wider choice of issues. In addition, capitalization weighted indices are somewhat unstable over time. For example, the Japanese market grew from 15% of EAFE in 1970 to 70% by 1989 and dropped to about 50% in 1990. Plan sponsors have used different weighting schemes to develop a reasonable country allocation for an international

benchmark. For the most part, these methods have been devised to reduce the perceived overweighting of Japan created by a purely capitalization weighted index (15):

- o Use a benchmark that weights each country by its gross domestic product (GDP).
- o Set the benchmark at 50% Europe and 50% Pacific Basin.

GDP-weighted benchmarks have become fairly popular among plan sponsors and Morgan Stanley now publishes a GDP-weighted version of EAFE. GDP weights are quite stable over time and are more equally spread over the major international markets. Figure 10 shows the history of capitalization versus GDP weighted EAFE from 1970-1990 and Figure 11 compares actual EAFE and GDP-EAFE weights as of June 30, 1990. Despite its appeal, the GDP-EAFE has some problems of its own:

- o Morgan Stanley re-weights the entire index only once per year based on data that is nearly a year old. Month-to-month changes are again subject to changes in market capitalization.
- o The resulting weights for some countries seem inappropriate. For example, Italy takes on a weight equal to or greater than the U.K. despite the fact the U.K. is the world's third largest market and Italy's public market is very small. Since Germany's public market is small compared to its total economy, its proportion of a GDP-weighted benchmark can be questioned as well.

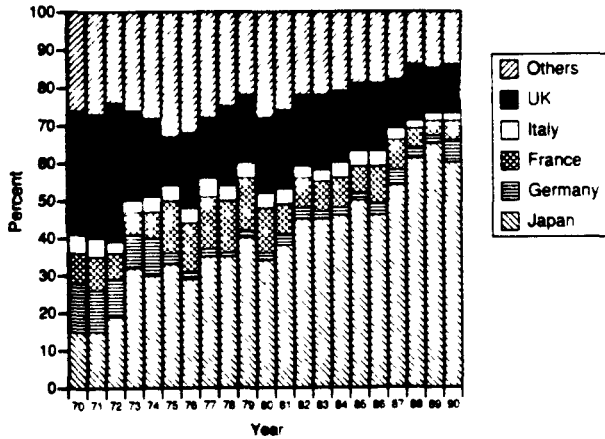
A benchmark that is weighted 50% Europe and 50% Pacific Basin, with countries weighted by capitalization within each region, is another way to address the high weight given Japan in purely capitalization weighted indices. This approach has several benefits:

- o It ensures the benchmark will be diversified across international markets. Since no single country will be over half of the benchmark, Japan's status in a

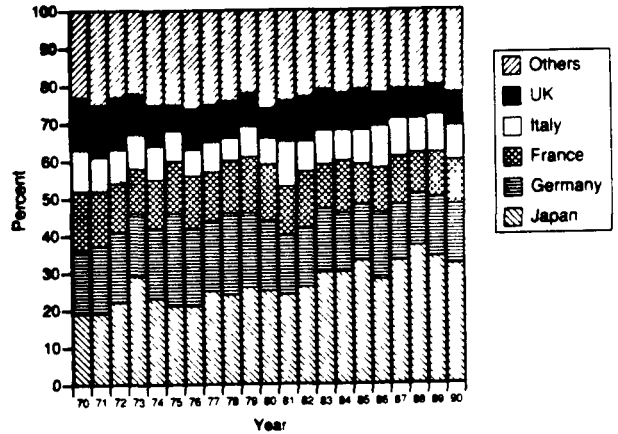
FIGURE 10

**HISTORY OF CAPITALIZATION VS GDP WEIGHTED EAFE
1970-1990**

Capitalization Weighted



Gross Domestic Product (GDP) Weighted



Source: Boston International Advisors, Inc

Source: Boston International Advisors, Inc

FIGURE 11

COMPARISON OF GDP AND EAFE WEIGHTS					
June 30, 1990					
MARKET	GDP WEIGHTS	EAFE INDEX	MARKET	GDP WEIGHTS	EAFE INDEX
Austria	1.6%	0.5%	Switzerland	2.1	3.3
Belgium	1.9	1.1	United Kingdom	9.2	15.2
Denmark	1.3	0.7	Europe	65.1%	43.5%
Finland	1.4	0.3	Australia	3.1%	2.3%
France	11.6	5.7	Hong Kong	0.7	1.4
Germany	14.9	7.0	Japan	30.3	51.5
Italy	10.4	3.0	New Zealand	0.5	0.2
Netherlands	2.8	2.5	Singapore	0.3	1.1
Norway	1.1	0.5	Pacific	34.9%	56.5%
Spain	4.6	1.8			
Sweden	2.2	1.9	Total	100.0%	100.0%

Source: Morgan Stanley Capital International Perspective, July 1990

capitalization weighted benchmark is addressed effectively and permanently.

- o It provides greater stability to country weights within the benchmark without the distortions of a GDP-weighted approach.
- o It recognizes two distinct economic regions within international markets. This has applications to a regional approach in a plan sponsor's investment management structure.
- o It imposes a "buy low/sell high" rebalancing discipline within the international segment of a portfolio. As shown below, this has the potential to enhance returns:

1970-1991

	<u>EAFE</u>	<u>50/50</u>
Annualized Return	14.28%	15.61%
Standard Deviation	17.69	17.44

Source: Richards & Tierney, Inc.

The 50/50 weighting scheme also presents some disadvantages:

- o The gains produced by the rebalancing discipline may be eroded or eliminated through additional transaction costs.
- o It may imply some unintended judgement about the relative performance potential of various regions or countries.

The high weight given Japan in capitalization weighted benchmarks remains cause for concern. A recent study concluded that reasonable adjustments for cross ownership would cut Japan's presence by roughly half its current weight in the world markets.(16) Despite this distortion, however, staff and the Investment Advisory Council (IAC) recommend that the Board adopt a capitalization weighted target for its international program. Capitalization weighted EAFE is the accepted index among plan

sponsors and money managers. Staff/IAC can not find an overwhelming advantage to alternative weighting schemes at this time. It should be noted that the recent decline of the Japanese market has defused the issue, at least to some extent. The weight of Japan in the EAFE index was approximately 39% as of June 1992.

The EAFE index employed by the SBI should be adjusted to reflect the following investment restrictions:

- o Securities that foreign governments do not allow U.S. investors to buy. This will affect both active and passive segments.
- o Securities that are prohibited by the SBI's policy on liquor and tobacco(17). This policy affects both active and passive segments.
- o Securities that are restricted by the SBI's resolution on South Africa(18). This policy affects the active segment only.

In order to minimize the tracking error associated with the South Africa restrictions, staff/IAC further recommend that the target for the active segment be re-weighted back to market weights by country (see the section "What Impact Do South Africa Restrictions Have?" for more information on tracking error due to restrictions).

WHAT ARE THE INVESTMENT MANAGEMENT OPTIONS?

Plan sponsors have a wide range of options in building their international portfolios. While investment approaches are expanding and evolving over time, the following categories are often used to describe the international manager universe today:

- o Top-Down

The top-down approach focuses on economic or other fundamental factors in an attempt to determine which local markets will perform better than others. Country allocation decisions are therefore of primary importance. Stock selection and currency management, while still part of the active management process, usually receive less attention.

This approach takes advantage of the large impact that country allocation has on returns. Its disadvantage is that a change in country allocation can affect a large percentage of the portfolio and will drive up transaction costs.

- o Bottom-Up

As the terms implies, bottom-up strategies concentrate on stock selection and attempt to capitalize on the inefficiencies in foreign markets. In this approach country and currency decisions are either secondary or are treated as a residual of the stock-picking philosophy. Styles emphasizing value, growth, small or large companies are more frequently seen in bottom-up approaches than in top-down methodologies. Quantitative disciplines are also gaining favor within this category.

- o Top-Down/Bottom-Up

Many managers state that both top-down and bottom-up decisions are important in their portfolio contribution process. Typically however, one of the disciplines is given greater emphasis.

- o Active/Passive

The active/passive approach is an offshoot of the top-down strategy that has emerged over the last five years. Here, the country allocation decision is actively managed but stock selection is implemented through a collection of country by country index funds. This approach evolved in response to the observation that many top-down managers added value through country selection but gave up much of the return through poor stock selection or high transaction costs. This strategy usually requires a minimum of \$50-100 million in assets due to the large number of stocks that must be held to replicate indices for multiple countries.

- o Passive

Passive management/indexation gained favor in the 1980's as an economical way to place sizeable amounts of assets in the international markets. The poor relative performance of many managers during the last decade fueled the growth of indexation as well.

- o Regional Mandates

Regional mandates (e.g. Europe, Pacific Basin, Europe ex-U.K., Japan-only) can be applied to any of the above strategies. This approach takes advantage of specialized strengths and skills of certain managers and has growing interest among plan sponsors.

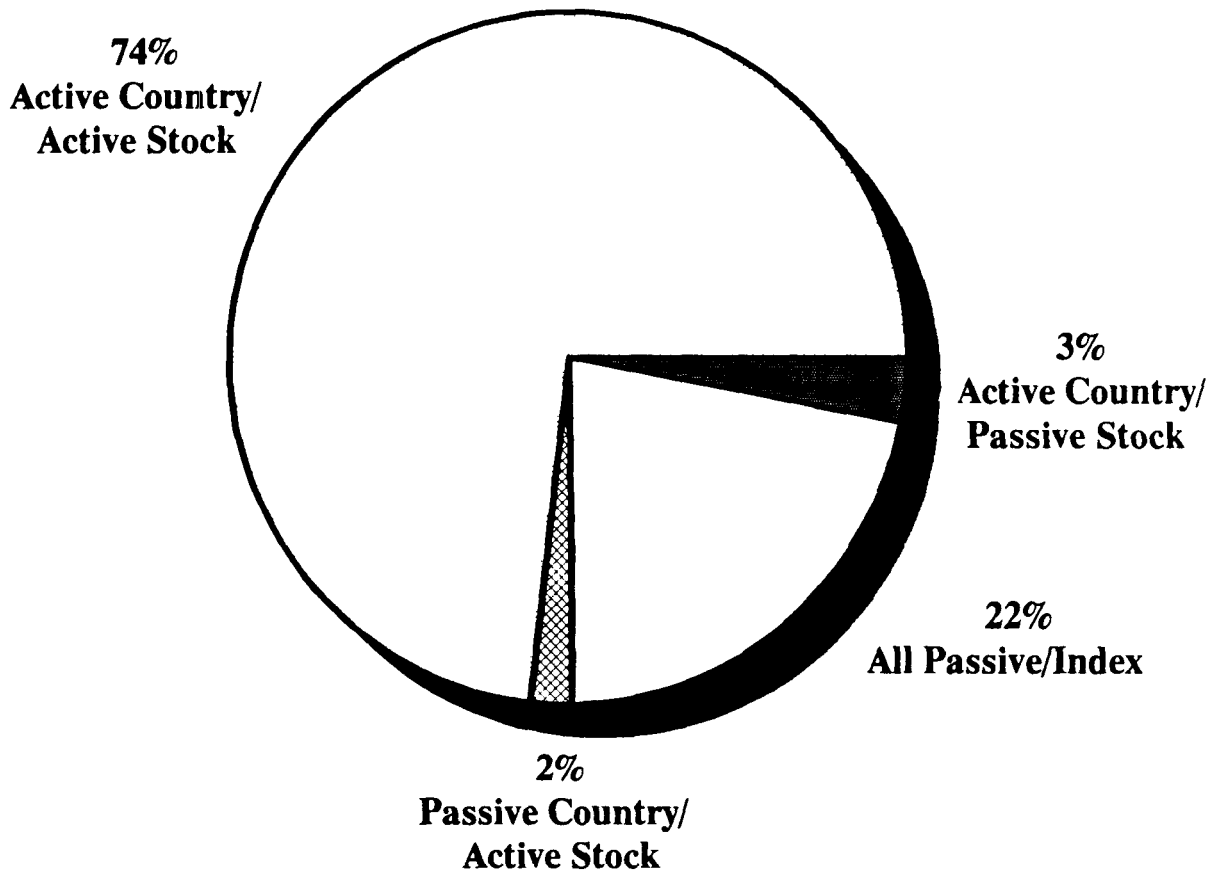
How are international portfolios being managed today? According to InterSec Research Corporation, nearly three quarters of U.S. tax exempt international equities are managed actively, about twenty percent is indexed and the remainder is in combinations of active and passive strategies (see Figure 12). Passive management has grown quite rapidly since the mid-1980's but mixes of active and passive management are relatively new.

How have international managers performed? The performance of the median manager in InterSec's universe over the 10 years ending 1991 is shown in Figure 13. Over the 3 and 5 year periods, the median manager outperformed EAFE but over the 10 year period the median manager underperformed the index by nearly one-half percentage point annualized. The spectacular growth and performance of the Japanese markets during the mid 1980's had a large impact on these results. Many managers underweighted Japan for several years because they felt the Japanese market was seriously over-valued. This decision hurt returns relative to EAFE for a protracted period. Yearly returns from InterSec's data base illustrate that "beating the index" can be difficult for international managers over extended periods (see Figure 14).

It is important to recognize that the performance of international active managers is more volatile than that of domestic managers. As shown in Figure 15, the median U.S. active

Figure 12.

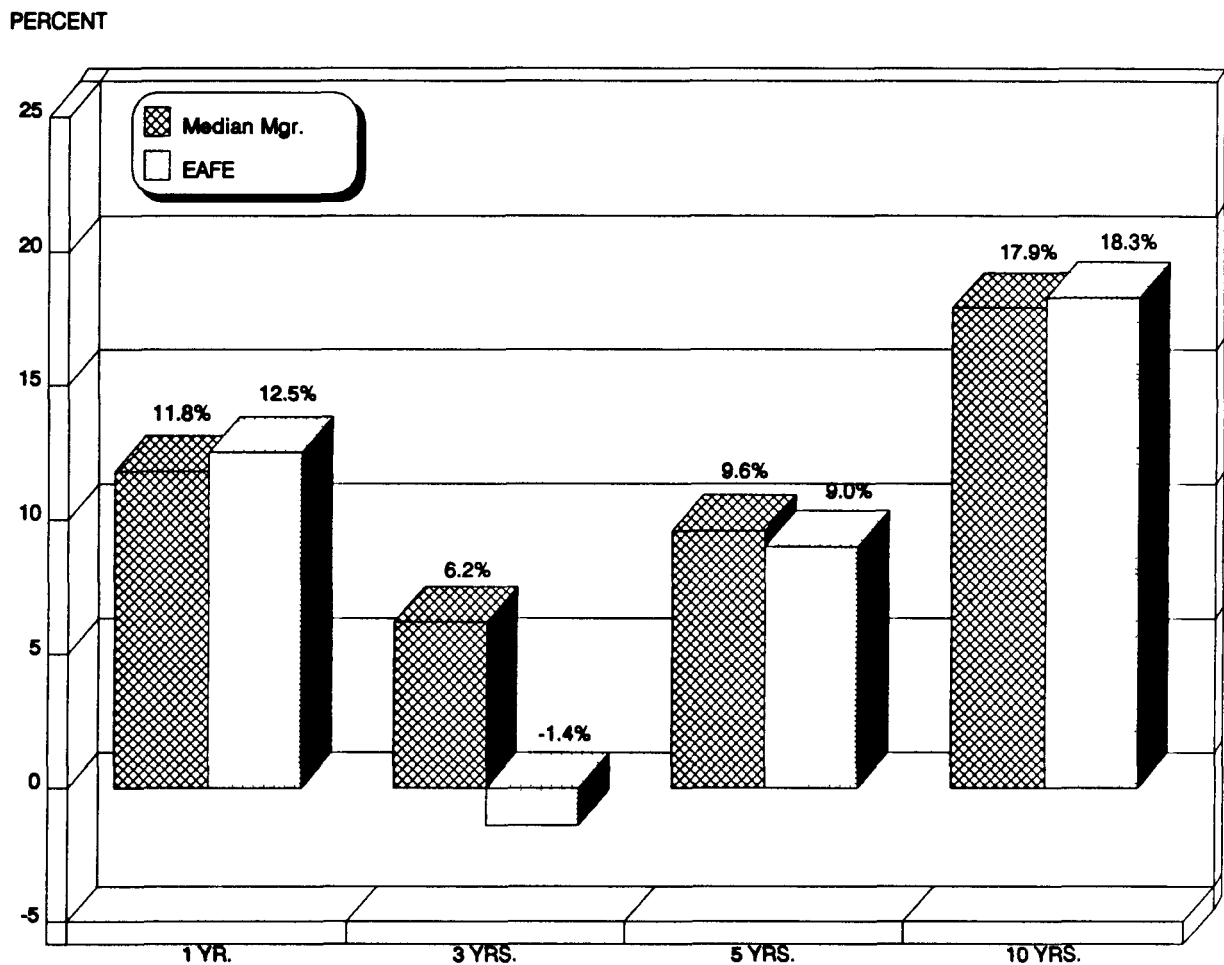
International Investment Approaches Used by U.S. Tax Exempt Funds December 1991



Source: InterSec Research Corp.

Figure 13.

Median Manager Performance Periods Ending Dec. 31, 1991 Annualized Returns



Source: InterSec Research Corp.

FIGURE 14

MEDIAN MANAGER VS. EAFE

ANNUAL PERIODS

	<u>EAFE</u>	<u>InterSec Median Manager</u>	<u>Median Manager Over (+)/Under (-) EAFE</u>
1991	12.13%*	11.85%	-0.28 percentage points
1990	-23.45	-13.30*	+10.15
1989	10.53	21.63*	+11.10
1988	28.27*	17.35	-10.92
1987	24.63*	11.30	-13.33
1986	69.45*	60.00	-9.45
1985	56.16*	55.90	-0.26
1984	7.38*	-2.90	-10.28
1983	23.69	28.70*	+5.01
1982	-1.86	3.90*	+5.76

* better performance

Sources: Median manager returns from InterSec Research Corp.
EAFE returns from Richards & Tierney

FIGURE 15

VARIABILITY OF ACTIVE MANAGER RETURNS
ANNUAL RETURN

	<u>TUCS Median International Manager</u>	<u>EAFE</u>	<u>Difference</u>
1991	11.16%	12.13%	-0.97% percentage points
1990	-13.59	-23.45	9.86
1989	20.69	10.45	10.16
1988	15.46	28.27	-12.81
1987	14.87	24.63	-9.76

	<u>TUCS Median U.S. Manager</u>	<u>Wilshire 5000</u>	<u>Difference</u>
1991	31.64%	34.20%	-2.56 percentage points
1990	-4.19	-6.18	1.99
1989	26.25	29.17	-2.92
1988	17.14	17.94	-0.80
1987	3.90	2.27	1.63

Sources: Median manager data from Trust Universe Comparison Service (TUCS)

EAFE and Wilshire data from Richards & Tierney

manager in the Trust Universe Comparison Service (TUCS) provided returns that were within \pm 3 percentage points around the U.S. market from 1987-1991. The variability of the median international active manager in TUCS was more than four times that level, i.e. within \pm 13 percentage points around the international market during the same period. The additional volatility of international managers will impact the SBI's evaluation process. Longer time frames may be necessary to judge a manager's potential to add value relative to EAFE due to the additional volatility/variability of returns.

HOW SHOULD THE BOARD STRUCTURE ITS INTERNATIONAL PROGRAM?

Staff and the Investment Advisory Council (IAC) recommend a two-phase approach to the investment management structure for the international equity segment of the Basic Funds:

- o Initial Structure - 100% passive
- o Longer Term Structure - at least 50% active

Passive management is an appropriate investment strategy, particularly during the start-up phase of the SBI's international program:

- o It provides immediate diversification benefits through exposure across international markets.
- o Large sums of money can be deployed relatively quickly and at lower administrative cost.
- o The returns produced by an index manager will be predictable relative to the SBI's chosen benchmark or target.
- o The search process for an index manager will be less complex and time consuming than for multiple active managers. Staff/IAC expect that the Board could hire an index manager as early as September 1992 and begin funding in October 1992.

- o Initial reliance on passive management provides time for the SBI to become familiar with the administrative issues of international investing (global custody and settlement, multi-currency accounting and performance reporting) without the added complexity of a multiple manager structure.

Active management is very attractive over the longer term. Staff and the IAC agree that the SBI should seek incremental gains/valued added through a variety of active strategies:

- o top-down
- o bottom-up
- o top-down/bottom-up
- o active country/passive stock
- o regional specialists
- o emerging market specialists

Staff/IAC do not propose a specific allocation to any particular active approach and do not suggest a definite timetable for incorporating any strategy. Rather, they recommend that the SBI begin its search for active managers as soon as practicable. As attractive candidates are identified, they should be incorporated into the SBI's international program. Staff/IAC expect that one or more active managers could be hired by the end of calendar 1992. The SBI should expect to add other candidates during calendar 1993.

Over time, staff/IAC believe that the SBI should seek to have at least 50% of the international allocation actively managed. Before adding active managers above the 50% level, however, the Board should expressly affirm a higher commitment to active management.

A summary of all recommendations contained in this position paper can be found in Figure 16.

FIGURE 16

BASIC RETIREMENT FUNDS
INTERNATIONAL EQUITY PROGRAM
SUMMARY OF RECOMMENDATIONS

Asset Class Target:

- o Source Morgan Stanley Capital International Index of Europe, Australia and the Far East (EAFE)
- o Weighting Capitalization, subject to restrictions shown below
- o Currency U.S. Dollar, Unhedged

Restrictions:

- o Active and Passive eliminate securities that U.S. investors are not allowed to own
eliminate securities that are affected by the SBI's policy on liquor and tobacco
- o Active only eliminate securities that are affected by the SBI's policy on South Africa and re-weight back to market weights by country

Hedging Strategy:

- o Passive no hedging
- o Active opportunistic/tactical hedging by individual managers

Management Structure:

- o Initial 100% passive
- o Longer Term at least 50% active

Timing:

- o Passive select manager by September 1992
- o Active begin search process as soon as possible*

* Active managers will be added as soon as practicable. Attractive candidates will be identified through an on-going search process during 1992-93.

FOOTNOTES

1. Callan Associates, "Investing in International Equities: Issues to Consider," 1989.
2. Robert E. Angelica, AT&T, "International Investing Practices of Large Corporate Pension Funds," Investing Worldwide, Association for Investment Management and Research (AIMR) 1990.
3. Frank Russell Company states that mean-variance asset allocation models recommend up to 75% non-U.S. equities. Wilshire Associates states that efficient frontier studies demonstrate that up to a 60% allocation to international stocks can reduce risk and enhance returns.
4. Amended and Restated Resolution of the Minnesota State Board of Investment Concerning South Africa, March 1, 1989.
5. Direct investment is defined by IRRC as 10% or more equity in an active South Africa company or employees in South Africa.
6. Alliance Capital Management L.P., "Impact of South Africa Free Constraints in Non-U.S. Equity Markets," June 30, 1991.
7. J.P. Morgan Investment, "South Africa-Free International Investment 1982-1989," 1990.
8. One (1) basis point equals 1/100 of 1%.
9. Anthony W. Robinson, First Chicago Investment Advisers, "Comparison of Fundamental Issues in International and Domestic Equity Investing," International Investing for U.S. Pension Funds, Institute for Fiduciary Education (IFE), May 1989.
10. Rosaland M. Hewsenian, Wilshire Associates, "Summary of International Investing - What are the Issues?," International Investing for U.S. Pension Funds, IFE, May 1989.
11. Christopher A. Nawakowski, InterSec Research Corp., "A Review of Trends in Global Investing," Initiating and Managing a Global Investment Program, AIMR, November 1990.
12. See Andre F. Pernold and Evan C. Shulman, "The Free Lunch in Currency Hedging: Implications for Investment Policy and Performance Standards," Financial Analysts Journal, May-June 1988 and Fisher Black, "Universal Hedging: Optimizing Currency Risks and Reward in International Equity Portfolios," Financial Analysts Journal, July-August 1989.

13. Less than 1% of the international equity portfolios in the InterSec Research Corp universe of U.S. tax exempt investors used either partially or fully hedged benchmarks as of September 1990. This indicates a similarly low percentage of portfolios use systematic hedging.
14. Investment Management Group, Bankers Trust Company, "Comparison of International Indices," September 1988. This publication is the source for most of the data and analysis presented in this section.
15. David Umstead, Boston International Advisors, Inc., "The Portfolio Management Process," Initiating and Managing a Global Investment Program, AIMR 1990.
16. Kenneth R. French and James M. Poterba, "Were Japanese Stock Prices Too High?" Journal of Financial Economics, Vol. 29, 1991.
17. SBI policy prohibits holding the stock of companies who derive more than 50% of their revenues from the sale of liquor or tobacco.
18. SBI policy directs its active stock managers to refrain from purchasing stock of companies with direct investment in South Africa unless the manager determines that failure to complete a purchase would be a breach of the manager's fiduciary responsibility.

APPENDIX A

**Statewide Public Pension Funds
Invested Internationally**

California Public Employees Retirement System
California Teachers Retirement System
Public Employees Retirement Association of Colorado
Connecticut Trust Funds
Delaware State Pension Funds
Public Employee Retirement System of Idaho
State Universities Retirement System of Illinois
Teachers Retirement System of the State of Illinois
Illinois State Board of Investment
Florida Retirement System Trust Fund
Iowa Public Employees Retirement System
Commonwealth of Massachusetts Pension Reserves Investment Trust
Public Employees Retirement System of Mississippi
Montana Board of Investments
Public Employees Retirement System of Nevada
New Jersey Division of Investment
New York State Common Retirement Fund
North Dakota State Investment Board
School Employees Retirement System of Ohio
Oregon Investment Council
Pennsylvania State Employees Retirement System
South Dakota Investment Council
Tennessee Consolidated Retirement System
Teacher Retirement System of Texas
Utah State Retirement Board
Washington State Investment Board
Wisconsin Investment Board

Source: Informal survey conducted by SBI staff in October 1991.

Number of states with international investments	24
Number of states without international investments	<u>9</u>
Total number of states in survey	33

APPENDIX B

PUBLICLY HELD INTERNATIONAL COMPANIES
WITH DIRECT INVESTMENT IN SOUTH AFRICA

NOVEMBER 1990

AUSTRALIA

The Broken Hill Pty. Co. Ltd.

Everald Compton International Pty. Ltd.

G.C.F. Investments Pty. Ltd.

Goodman Fielder Wattie Ltd.

G.H. Michell Holdings Pty. Ltd.

The News Corp. Ltd.

Qantas Airways Ltd.

Siddons Ramset Ltd.

TNT Ltd.

AUSTRIA

Ludwig Engel KG

Hoerbiger Ventilwerke AG

Osterreichische Industrieholding AG (OIAG)

Plasser & Theurer Export von Bahnbaumaschinen GmbH

Konrad Rosenbauer KG

BELGIUM

CMB N.V.

Hamon-Sobelco S.A.

Solvay et Cie. Societe Anonyme

UCB S.A.

CANADA

Menora Resources Inc.

Unican Security Systems Ltd.

DENMARK

The East Asiatic Co. Ltd. A/S

Novo Nordisk A/S

Potagua A/S

Sophus Berendsen A/S

FEDERAL REPUBLIC OF GERMANY

Adidas Sportschuhfabriken Adi Dassler Stiftung & Co. KG

AGIV Aktiengesellschaft Furr Industrie und Verkehrswesen

Allianz AG

Allweiler AG

Altana Industrie-Aktien und Anlagen AG

J.H. Bachmann GmbH & Co.

BASF AG

Baumwollspinnerei Gronau AG

Bayer AG

Bayerische Hpotheken- und Wechselbank AG (Hypobank)

Bayerische Landesbank Girozentrale

Bayerische Motoren Werke AG

Bayerische Vereinsbank AG

Bekum Maschinenfabrikenen GmbH

Bergische Achsenfabrik Fr. Kotz & Sohne

Bochumer Eisenhutte Heintsmann GmbH & Co. KG

Boehringer Ingelheim Zentrale GmbH

Boehringer Mannheim GmbH

Dr. Th. Bohme KG, Chemische Fabrik GmbH & Co.

Robert Bosch GmbH

Burkert GmbH & Co. KG

Colonia Versicherung AG

Commerzbank AG

Continental AG

Daimler-Benz AG

Degussa AG

Detia Degesch GmbH

Deutsche Afrika Linen

Deutsche Babcock AG

Deutsche Bank AG

Deutsche Bundesbahn

Deutsche Steinindustrie AG

Didier-Werke AG

DLW AG

Dragoco Geberding & Co. GmbH

Dresdner Bank AG

DS-Chemie GmbH & Co. KG

Gebr.Eickhoff Maschinenfabrik und Eisengiesserei mbH

EVT Energie- und Verfahrenstechnik GmbH

A.W. Faber-Castell Unternehmensverwaltung GmbH & Co.
FAG Kugelfischer Georg Schafer KGaA
Falke-Gruppe
C. & E. Fein GmbH & Co.
Freudenberg & Co.
Fuchs, Petrolub AG Oel + Chemie

GEA Luftkühlergesellschaft Happel GmbH & Co.
Gedore Werkzeugfabrik Otto Dowidat
Gewerkschaft Eisenhütte Westfalia GmbH
Gildemeister AG
Th. Goldschmidt AG

Haftpflichtverband der Deutschen Industrie Versicherungsverein AG
E. Heitkamp Baugesellschaft mbH & Co. KG
Helm AG
Hermann Hemscheidt Maschinenfabrik GmbH & Co.
Henkel KGaA
Richard Hirschmann Radiotechnisches Werk
Hoechst AG
Hoesch AG
Philipp Holzmann AG
Hüttenes- Albertus Chemische Werke GmbH

Industrieraufbaugesellschaft Schaeffler KG
Industrie- Werke Karlsruhe Augsburg AG

Jackstadt GmbH

Max Kettner Verpackungsmaschinenfabrik GmbH & Co. KG
Kienbaum Verwaltungsgesellschaft mbH
Klockner-Becorit GmbH
Klockner-Moeller Gruppe
Klockner-Werke AG
KM-Kabelmetal AG
Knorr-Bremse KG
Korber AG
Kunz Holding GmbH & Co. KG

Lapple GmbH, Verwaltungs- und Beteiligungsgesellschaft
Ledermann GmbH & Co.
(Deutsche) Lufthansa AG

Madaus AG
MAN AG
Mannesmann AG
F.X. Meiller Fahrzeug- und Maschinenfabrik GmbH & Co. KG
E. Merck Beteiligungen oHG
Metallgesellschaft AG
Miele & Cie. GmbH & Co.
Motorenfabrik Hatz GmbH & Co. KG
Munchener Rückversicherungs-gesellschaft

Neckar Drahtwerke GmbH
Nixdorf Computer AG
Norddeutsche Affinerie AG

Optyl Holding GmbH & Co.

Pennekamp & Huesker KG
G.M. Pfaff AG
Preussag AG

Rheiner Maschinenfabrik Windhoff AG
Rohde & Liesenfeld GmbH & Co.
Rohm GmbH
August Ruggeberg KG

Johannes Schafer Vorm Stettiner Schraubenwerke GmbH & Co. KG
Schering AG
L. Schuler GmbH
Gebr. Sedlmayr GmbH & Co.
Semikron International
Siemens AG
Staff GmbH & Co.
Sud-Chemie AG

Tente Rollen GmbH & Co.
Thyssen AG Vorm August Thyssen-Hutte
Treuarbeit AG Wirtschaftsprüfungsgesellschaft
Steuerberatungsgesellschaft
Gebruder Trox GmbH

Uhlmann & Co. KG
UTP Schweiss-Material GmbH & Co.

Veba AG
Volkswagen AG

Wacker-Chemie GmbH
WAP Reinigungssysteme GmbH & Co.
Max Weishaupt GmbH
Wella AG
Westfalia Separator AG
Ernst Winter & Sohn GmbH & Co.
Adolf Wurth GmbH & Co. KG

Carl-Zeiss-Stiftung
Zeppelin-Stiftung
Zimmermann & Jansen GmbH

FRANCE

Air France Cie. (Nationale)
L'Air Liquide S.A.
Assurances Generales de France

Banque Francaise du Commerce Exterieur

Chargeurs S.A.
Compagnie Financiere de Suez
Compagnie de Fives-Lille S.A.
Compagnie Generale d'Electricite (CGE)

Dollfus-Mieg & Cie. S.A.
Louis Dreyfus et Cie. S.A.
Faiveley Enterprises S.A.

Lafarge-Coppee S.A.
L'Oreal S.A.

Pechiney
Prouvost S.A.
Rhone-Poulenc S.A.
Societe Nationale des Chemins de fer Francais (SNCF)
Societe Parisienne d'Entreprises et de Participations S.A. (SPEP)

Total Compagnie Francaise des Petroles
Tractel S.A.

GREECE

National Bank of Greece

ISRAEL

Bank Leumi Le-Israel
El Al Israel Airlines Ltd.

ITALY

Assicurazioni Generali S.p.A.
Coe & Clerici S.p.A.
Ente Nazionale Idrocarburi (E.N.I.)
Fiat S.p.A.
Istituto Per La Ricostruzione Industriale (I.R.I.)
Montedison S.p.A.
Ing. C. Olivetti & C. S.p.A. 50

JAPAN

Amada Co. Ltd.

Brother Industries Ltd./Brother Kogyo

Chori Co. Ltd.

C. Itoh & Co. Ltd./Itochu Shoji

Japan Air Lines Co. Ltd./Nippon Koku

Kanematsu-Gosho Ltd.

Kinsho-Mataichi Corp.

Komatsu Ltd./Komatsu Seisakusho

Marubeni Corp.

Mayekawa Industries Co. Ltd.

Meiwa Trading Co. Ltd./Meiwa Sangyo

Mitsubishi Corp./Mitsubishi Shoji

Mitsui & Co. Ltd./Mitsui Bussan

Moritani & Co. Ltd.

NGK Spark Plug Co. Ltd./Nippon Tokushu Togyo

Nichimen Corp.

Nippon Seiko K.K.

Nippon Suisan Kaisha Ltd.

Nissho Iwai Corp.

Sanyo Electric Co. Ltd./Sanyo Denki

Sumitomo Corp./Sumitomi Shoji

Toyo Menka Kaisha Ltd./Tohmen

Toyota Tsusho Corp.

LUXEMBOURG

Ellipse S.A.

THE NETHERLANDS

DSM N.V.

Hunter Douglas N.V.

Internatio-Muller N.V.

KLM Royal Dutch Airlines/Koninklijke Luchtvaart Maatschappij N.V.

Koninklijke Distilleerderijen Erven Lucas Bols N.V.

Koninklijke Nedlloyd Groep N.V.

Philips International B.V.

Royal Dutch Petroleum Co.
Royal Packaging Industries Van Leer B.V.
(Koninklijke Emballage Industries Van Leer B.V.)

NETHERLANDS ANTILLES

Velcro Industries N.V.

NORWAY

Unitor Ships Service A/S

PORTUGAL

Air Portugal (TAP)

Banco Nacional Ultramarino

SPAIN

Pescanova S.A.

SWEDEN

Asea AB
Atlas Copco AB

Incentive AB

Sandvik AB
SKF AB

SWITZERLAND

Adia S.A.
Applied Research Laboratories S.A.

BBC Brown Boveri Ltd.
Birkhart Transport AG
Gebruder Buhler AG

Ciba-Geigy AG
CS Holding

Danzas AG

Endress + Hauser Consult AG

Hermes Precisa International S.A.
Hesta AG
Holderbank Financiere Glaris Ltd.

Kuhne & Nagel International AG

MAAG-Zahnrad und Maschinen AG

Nestle S.A.

Oerlikon-Buhrle Holding Ltd.

Roche Holding Ltd.

Sandoz Ltd.

Schindler Holding Ltd.

Schweizerische Aluminium Ltd./Alusuisse

Schweizerische Bankgesellschaft/Union Bank of Switzerland

Schweizerische Eternit Holding AG

Schweizerischer Bankverein/Swiss Bank Corp.

Schweizerische Ruckversicherungsgesellschaft (Swiss Reinsurance Co.)

Spedag Speditions AG

STAG AG

Gebroder Sulzer AG

Swissair/Schweizerische Luftverkehr AG

Tarego AG

Transco Holding AG

UNITED KINGDOM

Allied Capital Investment P.L.C.

APV P.L.C.

Avdel P.L.C.

Babcock International Group P.L.C.

B.A.T. Industries P.L.C.

The Beckenham Group P.L.C.

BET P.L.C.

Blackwood Hodge P.L.C.

Blue Circle Industries P.L.C.

The BOC Group P.L.C.

The Boots Co. P.L.C.

Bowthorpe Holdings P.L.C.

BPB Industries P.L.C.

British Airways P.L.C.

The British Aviation Insurance Co. Ltd.

British & Commonwealth Holdings P.L.C.

British Petroleum Co. P.L.C.

Brown Shipley Holdings P.L.C.

BTR P.L.C.

The Burmah Oil P.L.C.

Cadbury Schweppes P.L.C.
Century Oils Group P.L.C.
Charter Consolidated P.L.C.
Chloride Group P.L.C.
Horace Clarkson P.L.C.
Clayhithe P.L.C.
Coates Brothers P.L.C.
Coats Viyella P.L.C.
Commercial Union Assurance Co. P.L.C.
Cookson Group P.L.C.
Courtaulds P.L.C.
Courtaulds Textiles P.L.C.
Croda International P.L.C.

Davies & Metcalfe P.L.C.
Davy Corp. P.L.C.
Delta P.L.C.
Desoutter Bros. (Holdings) P.L.C.
Dobson Park Industries P.L.C.
Drummond Group P.L.C.

B. Elliott P.L.C.
E.R.F. (Holdings) P.L.C.
Evode Group P.L.C.

J.H. Fenner (Holdings) P.L.C.
Fine Art Developments P.L.C.
Fisons P.L.C.
Foseco P.L.C.

GEI International P.L.C.
General Accident Fire & Life Assurance Corp. P.L.C.
General Electric Co. P.L.C.
Gestetner Holdings P.L.C.
GKN P.L.C.
Glaxo Holdings P.L.C.
Clopec Holdings Ltd.
Goode Durrant P.L.C.
Grand Metropolitan P.L.C.
Great Universal Stores P.L.C.
Walter Greenbank P.L.C.
Guardian Royal Exchan. P.L.C.
Guinness P.L.C.

Haden MacLellan Holdings P.L.C.
Hall Engineering (Holdings) P.L.C.
Hanson P.L.C.
Harrisons & Crosfield L.C.
Hawker Siddeley Group L.C.
Hickson International P.L.C.
Hi-Tec P.L.C.
Howden Group P.L.C.
Hunting P.L.C.

Imperial Chemicals Industries P.L.C.

Johnson Matthey P.L.C.

Kelp Ltd.

The Laird Group P.L.C.

Laporte P.L.C.

Leica P.L.C.

Thomas Locker (Holdings) P.L.C.

London Finance & Investment Group P.L.C.

London International Group P.L.C.

Lonrho P.L.C.

Lopex P.L.C.

Low and Bonar P.L.C.

Lucas Industries P.L.C.

Marley P.L.C.

Maxwell Communication Corp. P.L.C.

McKechnie P.L.C.

The Morgan Crucible Co. P.L.C.

James Neill Holdings P.L.C.

Norcros P.L.C.

Norton Opax P.L.C.

The Ocean Group Ltd.

Paringa Mining & Exploration Co. P.L.C.

Pearson P.L.C.

The Peninsular and Oriental Steam Navigation Co.

Pilkington P.L.C.

Pirelli U.K. P.L.C.

The Plessey Co. P.L.C.

Powell Duffryn P.L.C.

Prudential Corp. P.L.C.

PWS Holdings P.L.C.

Racal Electronics P.L.C.

Reckitt & Colman P.L.C.

Record Holdings P.L.C.

Reed International P.L.C.

Renold P.L.C.

Rolls Royce P.L.C.

Royal Insurance Holdings P.L.C.

The RTZ Corp. P.L.C.

Scapa Group P.L.C.

Senior Engineering Group P.L.C.

Siebe P.L.C.

The 600 Group P.L.C.

SmithKline Beecham P.L.C.

Smith & Nephew P.L.C.

STC P.L.C.

Sun Alliance & London Insurance P.L.C.

Suter P.L.C.

Tate & Lyle P.L.C.
Telfos Holdings P.L.C.
Thames Water P.L.C.
Thermal International Holdings P.L.C.
Thorn EMI P.L.C.
TI Group P.L.C.
T&N P.L.C.
Tomkins P.L.C.
Tootal Group P.L.C.
Trafalgar House P.L.C.

Unilever P.L.C.
United Industries P.L.C.

Vickers P.L.C.

Wassall P.L.C.
The Weir Group P.L.C.
Wellcome P.L.C.
Wellman P.L.C.
Wiggins Teape Appleton P.L.C.
Willis Faber P.L.C.
George Wimpey P.L.C.
Wolseley P.L.C.
WPP Group P.L.C.

Yule Catto & Co. P.L.C.

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Tab I

COMMITTEE REPORT

DATE: September 1, 1992

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

FROM: International Index Manager Search Committee

At its June 1, 1992 meeting, the SBI authorized a Manager Search Committee to review international equity index managers and recommend one or more candidates to the Board. The Committee members are:

Peter Sausen	Governor's Representative, Chair
Christie Eller	Attorney General's Representative
Jake Manahan	Treasurer's Representative
Lisa Rotenberg	Auditor's Representative
Elaine Voss	Secretary of State's Representative
John Bohan	IAC Representative
Ken Gudorf	IAC Representative

Candidates Considered

Staff and the SBI's consultants, Pension Consulting Alliance and Richards & Tierney, identified the following international equity index vendors:

- Firms with more than \$1 billion under management:

	June 30, 1992
Alliance Capital	\$1.2 billion
Bankers Trust	4.7 billion
Boston International	1.4 billion
State Street Asset Management	12.6 billion
Wells Fargo Nikko	9.6 billion

- Firms with less than \$1 billion under management:

Aetna Capital Management
ANB
AXE Core

Dimensional Fund Advisers
Mellon Capital Management
PanAgora Asset Management
Prudential Diversified
RhumbLine Advisers
Travelers Investment Management
UBS

The SBI's account likely will be \$400-800 million in size. As a result, the Committee selected the five (5) firms with over \$1 billion in international equity index accounts for further consideration. Larger index managers offer several advantages to the SBI capacity to undertake a sizable account, lower fees and greater opportunities to reduce transaction costs through cross trading.

Review Process

Each finalist was asked to complete a detailed questionnaire regarding their organization, portfolio construction methodology and other issues relevant to index management. A copy of the questionnaire is attached

The Committee interviewed the five (5) finalists on August 19-20, 1992. Each firm was asked to cover the following topics

- Brief overview of international indexing
 - History and evolution of international passive strategies
 - Current trends
 - Outlook for the industry
- Firm's portfolio construction process
 - Indexation strategy
 - Trading capabilities
 - Tracking error expectation
- Return enhancements available to the SBI
 - Firm's experience with various strategies
 - Incremental return expectations
 - Risks associated with the strategies
- Competitive advantage of the firm
 - Firm's view of its unique strengths among international index managers

The Committee focused on the following issues during its deliberations on the five firms:

Organization

- Is the firm committed to developing and maintaining international equity indexing as a primary line of business?
- Does the firm have sufficient, experienced personnel dedicated to its international index operations?

Tracking

- Can the firm demonstrate an ability to track an index as well account for positive and negative return deviations?

Enhancements

- What experience and success has the firm had with trading strategies that may enhance index returns (e.g. equity linked swaps, warrants, dividend capture, etc.)?
- How extensive is the firm's securities lending program and how successful has the firm been in producing incremental income for its clients?

Costs

- What opportunity will the firm have to reduce the SBI's transactions costs through cross trading?
- How competitive is the proposed management fee?

Conclusion

After reviewing all the finalists, the Committee concluded that State Street Asset Management is the strongest candidate for the SBI's account at the present time.

State Street Asset Management is the fund management area of State Street Bank and Trust Company. State Street Bank is a wholly owned subsidiary of State Street Boston Corporation.

State Street began managing international index accounts in 1978 and has been ranked as the largest international equity index manager for several years. Its international index corporate pension fund clients include AT&T, IBM and Westinghouse. Public fund international index clients include California Public Employees Retirement System, the State of Maryland and the Virginia Retirement System. In addition, several money managers have selected State Street's country index funds to implement their active

country/passive stock strategies. These firms include Baring-U.K., Bear Bull-Geneva, Brinson Partners, and Chancellor.

State Street utilizes a full replication strategy to construct index modules on a country by country basis. These country modules can then be combined and weighted according to client preference. Due to the SBI's liquor and tobacco restrictions, the majority of the Minnesota account will be managed outside the country modules structure. However, the replication strategy will be used to construct the portfolio on a separate account basis. State Street's anticipated annual tracking error on the SBI's account is less than ± 20 basis points before enhancements and management fees.

Lynn Bogle, Vice President, joined State Street in 1986 and will be the SBI's primary portfolio manager. Stuart Peskin, Assistant Vice President and Unit Head of Non-U.S. Passive Strategies, joined State Street in 1989 and will be back-up manager for the account.

RECOMMENDATION

The Committee recommends that the SBI authorize the executive director, with assistance from SBI's legal counsel, to negotiate and execute a contract with State Street Bank and Trust for international equity index fund management and related international custody.

**MINNESOTA STATE BOARD OF INVESTMENT
INTERNATIONAL INVESTMENT MANAGER INFORMATION
PASSIVE/INDEX STRATEGIES**

I. Background Data

1. Name of Firm: _____
2. Address: _____

3. Telephone: _____
4. Fax: _____
5. Contact: _____
6. Date Business Commenced: _____

Date International Index Strategies Commenced: _____
7. Affiliation with other firms (i.e., parent management companies, insurance companies, brokerage firms, investment banking firms, or other entities):

8. Ownership:

9. Is the firm registered as an investment advisor under the Investment Advisors Act of 1940; a bank, as defined in the act; an insurance company qualified to act in such capacity under the laws of Minnesota and one other state?

II Organization/Staff

A. Professional Staff Used in Passive/Index Strategies

		Domestic Passive	Non-U.S. Passive
1	Number of investment department personnel	_____	_____
2	Number of portfolio managers.	_____	_____
3	Number of in-house traders	_____	_____
4	Number of portfolio managers and investment analysts added in the past three years	_____	_____
5	Number of portfolio managers and investment analysts who have left in the past three years	_____	_____
6	State to what extent personnel are double counted in questions #1-#5		
7	Provide elaboration on answers to questions #4 and #5.		
8	Experience of the above investment personnel in non-U.S. passive strategies		
		<u>Number of Years</u>	
		<u>Average</u>	<u>Low</u> . <u>High</u>
	Portfolio managers	_____	_____
	Investment analysts	_____	_____
9.	Please provide biographical data on key investment personnel, including education and work experience		
10	Identify the member(s) of the firm who would be directly responsible for managing the SBI's account		
11.	How many accounts and total dollars do the individuals listed in #10 above currently manage?		
12	Please provide an organizational chart of the firm's international index function.		

B. Assets/Client Relationships

1. For all assets under management as of June 30, 1992, provide the following information:

<u>Accounts</u>	<u>Number</u>	<u>Total</u>	<u>Assets (\$ in millions)</u>				<u>Percent of Assets Fully Discretionary</u>
			<u>Non-U.S. Stocks Passive</u>	<u>Non-U.S. Stocks Active</u>	<u>U.S. Stock Passive</u>	<u>U.S. Stocks Active</u>	

Total
Tax exempt

2. Account Breakdown for Non-U.S. Passive Equity

	<u>Number of Tax-Exempt Accounts</u>				
	<u>6/30/92</u>	<u>12/31/92</u>	<u>12/31/91</u>	<u>12/31/90</u>	<u>12/31/89</u>
Under \$25 million					
\$25 - \$50 million					
\$50 - \$100 million					
Over \$100 million					
Total #					
Total (in \$)					

Largest Account as of 6/30/92 (in \$)
Smallest Account as of 6/30/92 (in \$)

3. Describe any limitations the firm currently imposes or plans to impose for its non-U.S. passive equity accounts:
- (a) Number of Client Relationships
 - (b) Total Assets Under Management
 - (c) Maximum Account Size
 - (d) Minimum Account Size
4. List the names and the dollar amount of the firm's five largest non-U.S. equity passively managed tax-exempt accounts.
5. Provide the names and sizes of all non-U.S. equity passively managed tax-exempt accounts gained during the last five years.
6. Provide the names and sizes of all non-U.S. equity passively managed tax-exempt accounts lost during the last five years.

7. Describe the firm's experience with managing non-U.S. passive equity portfolios for public funds and other large tax-exempt institutional clients.

C. Financial Viability and Ethics

- 1 Describe any censure by the SEC or any litigation pending against the firm
- 2 Is the firm aware of any potential conflicts of interest in managing the SBI's assets?
- 3 Does the firm maintain written policies and guidelines to assure compliance with governing securities laws and regulations? Briefly describe your monitoring process
- 4 Describe the firm's financial position
- 5 Provide a copy of the firm's most recent audited financial statement
6. Provide a copy of the firm's form ADV

III. Investment Approach

A Indexation Strategy

- 1 Describe the firm's portfolio construction process
- 2 Describe any allocation to cash during the past five (5) years.
3. Does the firm routinely screen any companies out of the index universe due to liquidity or other constraints not specified by the client?

B Trading (Non-U.S equity and foreign currency)

- 1 Describe the firm's trading operation with reference to staffing, experience and scope of responsibilities
- 2 Describe the firm's use, if any, and allocation of commissions.

3. Describe the firm's experience in executing large transactions. Discuss packaged trades (with and without guaranteed prices) and ability to work individual names.
4. Describe the firm's experience with cross trades. What percentage of trades were crossed in calendar year 1989, 1990, 1991 and 1992 year-to-date? Please separate percentage of buy transactions crossed from percentage of sell transactions crossed. How are crossing requests queued? Are separate accounts treated differently than commingled accounts?

C. Securities Lending

1. Does the firm provide securities lending? If so, please address the remaining questions in this section.
2. Describe the firm's experience with securities lending (e.g. experience of personnel, process used, allocation methodology).
3. Which countries are included in your securities lending program?
4. Which brokers does the firm deal with? Are broker losses guaranteed?
5. What percentage of eligible assets was lent in calendar 1989, 1990, 1991 and 1992 year-to-date? What was the revenue in terms of basis points?
6. What was the standard split in each of the above periods? Do all clients have the same split?
7. What is the firm's outlook for securities lending activity/profitability in the next 1-3 years?

D. Custody Relationships

1. Please list all custodians used by current clients.
2. Does the firm have an established custody relationship for its clients? If so, please describe and include issues such as the firm's sub-custodian network, ability to lend securities in various market, the treatment of short term cash in each market and fees.

3. If yes to #2, please describe the firm's ability to interface with other custodians
4. If yes to #2, what would be the impact on securities lending and crossing activity for the SBI's account if the SBI selected another custodian? Specifically address any potential disadvantages the SBI would experience if it used a different custodian

E. Derivatives and Other Enhancements

- 1 Describe the firm's experience with equity-linked swaps.
- 2 Describe the firm's experience in using and evaluating listed futures and options. How is the underlying cash position invested?
- 3 Describe the firm's experience with dividend capture programs and associated legal issues
- 4 Describe any other enhancement strategy typically used by the firm for its passive accounts
- 5 What percentage of the portfolio, if any, is ordinarily allocated to the above strategies?

F. Currency Management

- 1 The SBI does not contemplate using passive hedging at this time, but may choose to incorporate a hedging strategy in the future. Please describe the firm's experience in this area
- 2 Does the firm trade foreign currency for its own account? If so, how are any potential conflicts of interest addressed concerning trading for its own account versus that of the client?

G. Tracking and Restrictions

Initially, the SBI will use the following benchmark for its passive portfolio:

- EAFE "Free", ex-restricted liquor and tobacco stocks*
- Capitalization weighted
- U.S. Dollar, Unhedged

* The SBI will not hold the stock of any company that obtains more than 50% of its gross revenues from the sale of liquor or tobacco.

1. What is the firm's annual tracking error expectation relative to the above benchmark? State expectations gross of fees, before securities lending and other enhancements and before custody charges.
2. How would the firm identify securities affected by the SBI's liquor and tobacco restrictions? Please provide a list of EAFE securities that would be affected by the restriction as of June 30, 1992.
- 3 Describe the firm's experience in working with accounts with investment restrictions

H. Transition/Funding

The SBI intends to allocate \$400 million or more to passive management. The allocation will be funded with U.S. cash equivalents and/or U.S. stocks.

1. What funding schedule does the firm recommend to minimize transactions costs?
2. What combination of cash and/or securities is most advantageous?
- 3 What percentage of the initial funding is likely to be crossed?
4. Describe the firm's capability to act as a transition manager, e.g. cash flow in/out of the portfolio due to active manager retention/termination activity.

I. Communication

1. What is the format and frequency of communication with clients?
2. Who in the organization will handle contact with the SBI?

- 3 Will the SBI's portfolio manager be available for periodic presentations and joint manager meetings?
- 4 Please provide an example of a client/manager presentation.

J. Organization and Fees

- 1 Will the SBI's account be managed on a separate basis? If not, explain.
- 2 Describe the information processing capabilities (databases, hardware and software) supporting the firm's investment operation
- 3 What does the firm perceive its weakness(es) to be, if any, in its organization and/or investment approach
- 4 Please summarize your standard fee schedule

IV. Return History (Use Attachment A where applicable)

- A** Please list the name of the benchmark index against which your performance is most appropriately compared. Please state the cash position or other offset, such as taxes or custody charges, that was incorporated into the benchmark, if any, to calculate benchmark returns
- B** Please report gross returns as follows:
- before fees
 - before securities lending, swaps or other enhancements
 - before custody charges
 - before entry/exit charges (e.g. manager transitions)
 - after normal transactions costs (e.g. normal rebalancing, commissions)
- C** Please report gross returns and benchmark returns out to at least two (2) decimal points. Please report securities lending income, other enhancements and custody charges in basis points
- D** Composite returns are preferred over individual account returns. The composite should include all accounts that existed during each time period to eliminate survivor bias. Please calculate the composite on a portfolio market value weighted basis rather than an equal weighted basis. If a

weighted market composite is not available, please describe how the composite was calculated. Describe the extent to which the calculation of the composite conforms to the AIMR Performance Presentation Standards.

- E. If a composite is not available, please provide data from a representative account that is as similar as possible to the SBI's projected account size (\$400 million or more) and investment restrictions. Identify the client account provided.
- F. Monthly data are required for gross returns and benchmark returns. Monthly data for securities lending, other enhancements and custody charges are preferred but quarterly data are acceptable.
- G. Return data should be provided for a minimum of three (3) years. More than five (5) years is desirable and data since inception is preferred.
- H. Please provide 2-3 client contacts who can verify the reported returns. References with portfolios over \$100 million and investment constraints similar to the SBI's restrictions are preferred.

V. Contract Requirements

Minnesota Statutes or SBI contracting procedures require that:

- Your firm must provide a certificate of compliance from the Minnesota Department of Human Rights which approves your affirmative action plan for the employment of minority persons, women and the disabled. (The certification is not required if your firm has had less than 20 full time employees at all times during the previous 12 months.)
- Your firm will allow all books and records relevant to the management of the SBI's portfolio to be examined by the SBI and the Office of the Legislative Auditor.
- Your firm will provide appropriate tax identification numbers prior to the start of the contract.
- Your firm will not assign or subcontract any part of the agreement without prior written consent to the SBI.

Will your firm be able to comply with each of these requirements?

VI. Submission of Response

1 Send fifteen (15) copies of your response to

Beth Lehman
Assistant Executive Director
Minnesota State Board of Investment
Room 105, M.E A Building
55 Sherburne Avenue
St Paul, MN 55155

(612) 296-3328

Please note that one (1) of the above copies should be left unbound.

2 Send one (1) copy to:

Allan Emkin
Pension Consulting Alliance
12750 Ventura Boulevard
Suite 102
Studio City, CA 91604

(818) 752-8444

3 Send one (1) copy to:

Maureen Culhane
Richards & Tierney, Inc.
111 West Jackson Boulevard
Chicago, IL 60604

(312) 461-1100

**All copies must be received at the above addresses by 3:00 P.M.
Central Time on Friday, July 17, 1992.**

Attachment A

Historical Return Data

Firm: _____

Product Description: _____

Benchmark Index: _____

Year: _____	<i>Gross Returns</i>	<i>Sec. Lending Income</i>	<i>Custody Charges</i>	<i>Other * Enhancements</i>	<i>Benchmark Returns</i>
January					
February					
March					
1st Qtr					
April					
May					
June					
2nd Qtr					
July					
August					
September					
3rd Qtr					
October					
November					
December					
4th Qtr					

Year: _____	<i>Gross Returns</i>	<i>Sec. Lending Income</i>	<i>Custody Charges</i>	<i>Other * Enhancements</i>	<i>Benchmark Returns</i>
January					
February					
March					
1st Qtr					
April					
May					
June					
2nd Qtr					
July					
August					
September					
3rd Qtr					
October					
November					
December					
4th Qtr					

Make additional copies of this form as needed

* Please specify the source of the enhancements

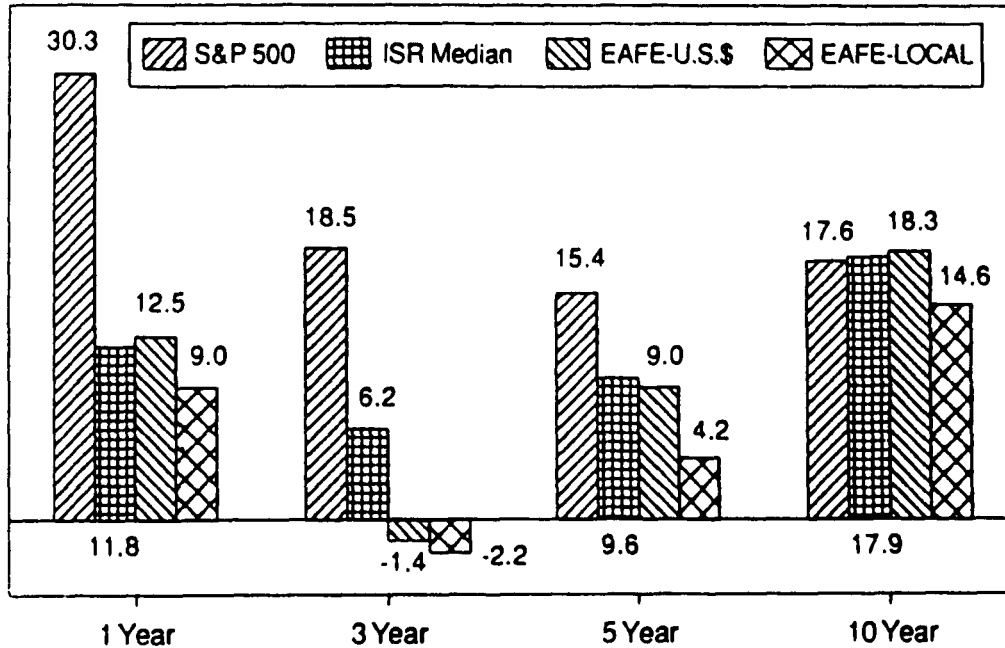
Miscellaneous Material

ATTACHMENT

NO. 1

Equity Index and InterSec Universe Returns

Ending December 31, 1991 - Per Cent Per Annum, Compounded



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Stamford • London • Tokyo

The dominant features of performance of international equity managers, and benchmark indices, in periods ending 1991, are first, the extraordinary recent returns of the U.S. equity market, and second, the good recent performance of active international managers compared to the EAFE Index.

Over the ten year period, the median manager in the InterSec Non-US Equity Universe did beat the S&P 500, if only by a small amount, but has trailed the EAFE Index.

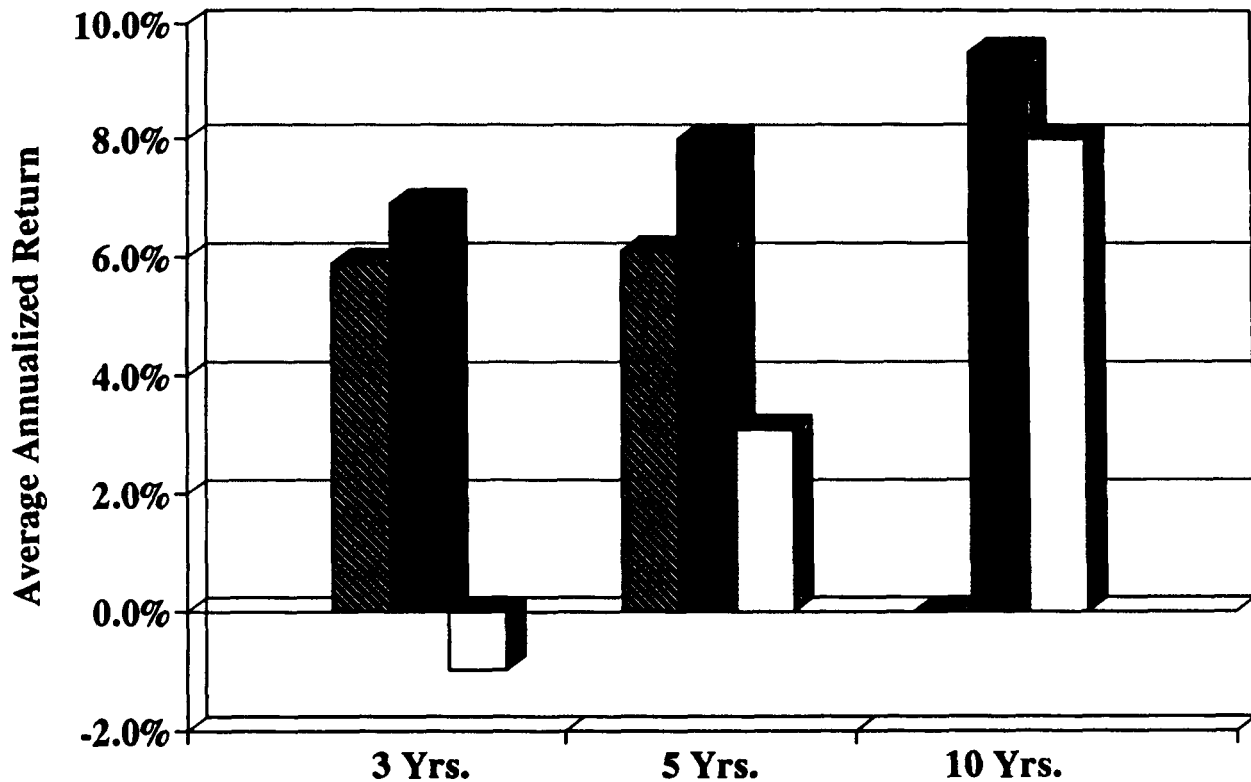
It is also interesting to see the extent of currency gains in the EAFE index over the last ten years.

ATTACHMENT

NO. 2

Open End Equity Real Estate Funds

Periods Ending 12/31/91



ASB Capital "EBREF"

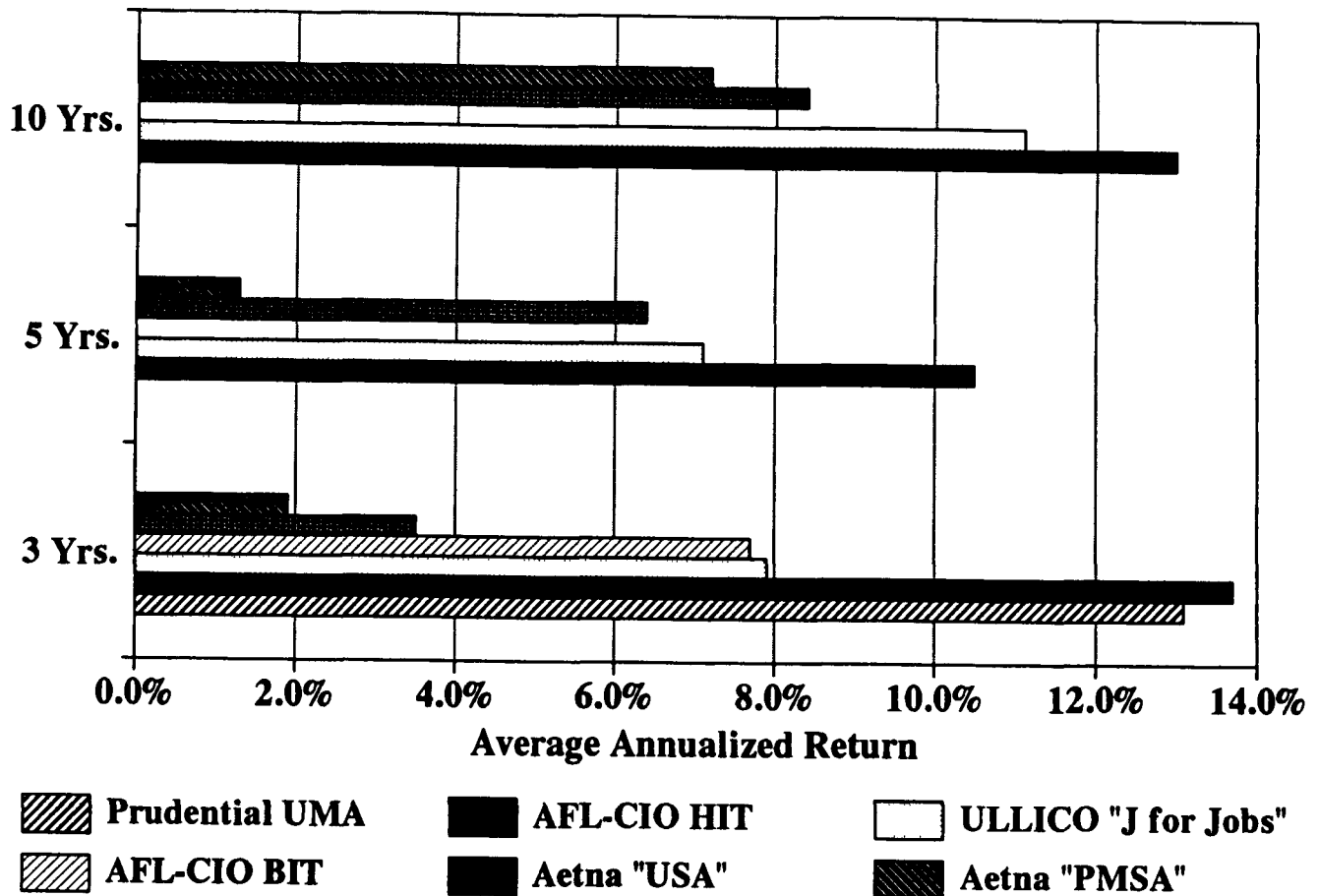
MEPT

EAI Open End Equity Funds Median

Source: The Marco Consulting Group, Press Release, April 15, 1992.

Mortgage Real Estate Funds

Periods Ending 12/31/91



Source: Marco Consulting Group, Press Release, April 15, 1992.

ATTACHMENT

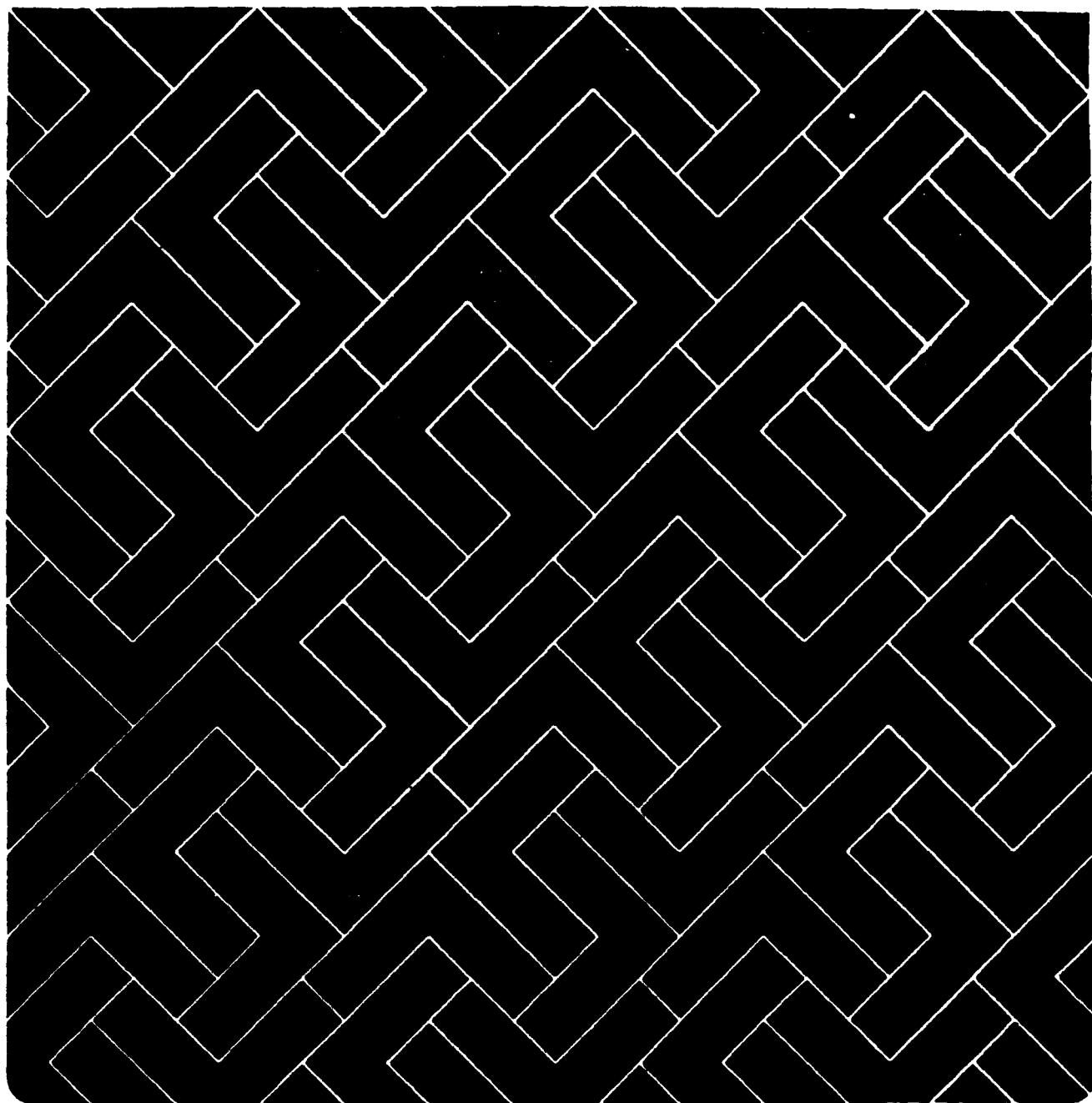
NO. 3

Tripartite Declaration of Principles
concerning Multinational Enterprises
and Social Policy

International Labour Office Geneva

Tripartite Declaration of Principles
concerning
Multinational Enterprises
and Social Policy

International
Labour
Office
Geneva



PREFACE

The Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy, reproduced in this publication, is the outcome of several years' efforts by the International Labour Office to reach agreed solutions in a highly complex and controversial area of social policy through dialogue and negotiation between governments, employers and workers.

The Governing Body of the ILO, in adopting the Declaration on 16 November 1977 during its 204th Session in Geneva, gave the final touch to an endeavour which was started in 1972 with the first Tripartite Meeting on the Relationship between Multinational Enterprises and Social Policy. The Declaration is the result of thorough research and extensive consultations with all interested parties and relating to such issues as employment, vocational training, conditions of work and life, and industrial relations in multinational enterprises.

The consensus thus reached represents an unique example of common worldwide social policy formulated by governments, employers and workers, in the best traditions of the ILO.

The guidelines contained in the Declaration should serve to enhance the positive contribution which multinational enterprises can make to economic and social progress and to reducing or resolving the difficulties to which their operations may give rise.

I venture to hope that this Declaration, because of the wide support it has received from the ILO's constituents, will provide a specially suitable framework for realistic guidance of future action in this field.

Geneva, 30 November 1977.

FRANCIS BLANCHARD
Director-General

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Sixth impression 1987

The designations employed in ILO publications, which are in conformity with United Nations practice, and the presentation of material therein do not imply the expression of any opinion whatsoever on the part of the International Labour Office concerning the legal status of any country, area or territory or of its authorities, or concerning the delimitation of its frontiers.

The responsibility for opinions expressed in signed articles, studies and other contributions rests solely with their authors, and publication does not constitute an endorsement by the International Labour Office of the opinions expressed in them.

Reference to names of firms and commercial products and processes does not imply their endorsement by the International Labour Office, and any failure to mention a particular firm, commercial product or process is not a sign of disapproval.

ILO publications can be obtained through major booksellers or ILO local offices in many countries, or direct from ILO Publications, International Labour Office, CH-1211 Geneva 22, Switzerland. A catalogue or list of new publications will be sent free of charge from the above address.

INTERNATIONAL LABOUR ORGANISATION

TRIPARTITE DECLARATION OF PRINCIPLES CONCERNING MULTINATIONAL ENTERPRISES AND SOCIAL POLICY (adopted by the Governing Body of the International Labour Office)

The Governing Body of the International Labour Office;

Recalling that the International Labour Organisation for many years has been involved with certain social issues related to the activities of multinational enterprises;

Noting in particular that various Industrial Committees, Regional Conferences, and the International Labour Conference since the mid-1960s have requested appropriate action by the Governing Body in the field of multinational enterprises and social policy;

Having been informed of the activities of other international bodies, in particular the UN Commission on Transnational Corporations and the Organisation for Economic Co-operation and Development (OECD);

Considering that the ILO, with its unique tripartite structure, its competence, and its longstanding experience in the social field, has an essential role to play in evolving principles for the guidance of governments, workers' and employers' organisations, and multinational enterprises themselves;

Recalling that it convened a Tripartite Meeting of Experts on the Relationship between Multinational Enterprises and Social Policy in 1972, which recommended an ILO programme of research and study, and a Tripartite Advisory Meeting on the Relationship of Multinational Enterprises and Social Policy in 1976 for the purpose of reviewing the ILO programme of research and suggesting appropriate ILO action in the social and labour field;

Bearing in mind the deliberations of the World Employment Conference;

Having thereafter decided to establish a tripartite group to prepare a Draft Tripartite Declaration of Principles covering all of the areas of ILO concern which relate to the social aspects of the activities of multinational enterprises, including employment creation in the developing countries, all the while bearing in mind the recommendations made by the Tripartite Advisory Meeting held in 1976;

Having also decided to reconvene the Tripartite Advisory Meeting to consider the Draft Declaration of Principles as prepared by the tripartite group;

Having considered the Report and the Draft Declaration of Principles submitted to it by the reconvened Tripartite Advisory Meeting;

Hereby approves the following Declaration which may be cited as the Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy, adopted by the Governing Body of the International Labour Office, and invites governments of States Members of the ILO, the employers' and workers' organisations concerned and the multinational enterprises operating in their territories to observe the principles embodied therein.

1. Multinational enterprises play an important part in the economies of most countries and in international economic relations. This is of increasing interest to governments as well as to employers and workers and their respective organisations. Through international direct investment and other means such enterprises can bring substantial benefits to home and host countries by contributing to the more efficient utilisation of capital, technology and labour. Within the framework of development policies established by governments, they can also make an important contribution to the promotion of economic and social welfare, to the improvement of living standards and the satisfaction of basic needs; to the creation of employment opportunities, both directly and indirectly; and to the enjoyment of basic human rights, including freedom of association, throughout the world. On the other hand, the advances made by multinational enterprises in organising their operations beyond the national framework may lead to abuse of concentrations of economic power and to conflicts with national policy objectives and with the interest of the workers. In addition, the complexity of multinational enterprises and the difficulty of clearly perceiving their diverse structures, operations and policies sometimes give rise to concern either in the home or in the host countries, or in both.

2. The aim of this Tripartite Declaration of Principles is to encourage the positive contribution which multinational enterprises can make to economic and social progress and to minimise and resolve the difficulties to which their various operations may give rise, taking into account the United Nations resolutions advocating the Establishment of a New International Economic Order.

3. This aim will be furthered by appropriate laws and policies, measures and actions adopted by the governments and by co-operation among the governments and the employers' and workers' organisations of all countries.

4. The principles set out in this Declaration are commended to the governments, the employers' and workers' organisations of home and host countries and to the multinational enterprises themselves.

5. These principles are intended to guide the governments, the employers' and workers' organisations and the multinational enterprises in taking such measures and actions and adopting such social policies, including those based on the principles laid down in the Constitution and the relevant Conventions and Recommendations of the ILO, as would further social progress.

6. To serve its purpose this Declaration does not require a precise legal definition of multinational enterprises; this paragraph is designed to facilitate the understanding of the Declaration and not to provide such a definition. Multinational enterprises include enterprises, whether they are of public, mixed or private ownership, which own or control production, distribution, services or other facilities outside the country in which they are based. The degree of autonomy of entities within multinational enterprises in relation to each other varies widely from one such enterprise to another, depending on the nature of the links between such entities and their fields of activity and having regard to the great diversity in the form of ownership, in the size, in the nature and location of the operations of the enterprises concerned. Unless otherwise specified, the term "multinational enterprise" is used in this Declaration to designate the various entities (parent companies or local entities or both or the organisation as a whole) according to the distribution of responsibilities among them, in the expectation that they will co-operate and provide assistance to one another as necessary to facilitate observance of the principles laid down in the Declaration.

7. This Declaration sets out principles in the fields of employment, training, conditions of work and life and industrial relations which governments, employers' and workers' organisations and multinational enterprises are recommended to observe on a voluntary basis, its provisions shall not limit or otherwise affect obligations arising out of ratification of any ILO Convention.

GENERAL POLICIES

8. All the parties concerned by this Declaration should respect the sovereign rights of States, obey the national laws and regulations, give due consideration to local practices and respect relevant international standards. They should respect the Universal Declaration of Human Rights and the corresponding International Covenants adopted by the General Assembly of the United Nations as well as the Constitution of the International Labour Organisation and its principles according to which freedom of expression and association are essential to sustained progress. They should also honour commitments which they have freely entered into, in conformity with the national law and accepted international obligations.

9. Governments which have not yet ratified Conventions Nos. 87, 98, 111 and 122 are urged to do so and in any event to apply, to the greatest extent possible, through their national policies, the principles embodied therein and in Recommendations Nos. 111, 119 and 122*. Without prejudice to the obligation of governments to ensure compliance with Conventions they have ratified, in countries in which the Conventions and Recommendations cited in this paragraph are not complied with, all parties should refer to them for guidance in their social policy.

10. Multinational enterprises should take fully into account established general policy objectives of the countries in which they operate. Their activities should be in harmony with the development priorities and social aims and structure of the country in which they operate. To this effect, consultations should be held between multinational enterprises, the government and, wherever appropriate, the national employers' and workers' organisations concerned.

11. The principles laid down in this Declaration do not aim at introducing or maintaining inequalities of treatment between multinational and national enterprises. They reflect good practice for all. Multinational and national enterprises, wherever the principles of this Declaration are relevant to both, should be subject to the same expectations in respect of their conduct in general and their social practices in particular.

12. Governments of home countries should promote good social practice in accordance with this Declaration of Principles, having regard to the social and labour law, regulations and practices in host countries as well as to relevant international standards. Both host and home country governments should be prepared to have consultations with each other, whenever the need arises, on the initiative of either.

* Convention (No. 87) concerning Freedom of Association and Protection of the Right to Organise; Convention (No. 98) concerning the Application of the Principles of the Right to Organise and to Bargain Collectively; Convention (No. 111) concerning Discrimination in Respect of Employment and Occupation; Convention (No. 122) concerning Employment Policy; Recommendation (No. 111) concerning Discrimination in Respect of Employment and Occupation; Recommendation (No. 119) concerning Termination of Employment at the Initiative of the Employer; Recommendation (No. 122) concerning Employment Policy.

EMPLOYMENT

Employment promotion

13. With a view to stimulating economic growth and development, raising living standards, meeting manpower requirements and overcoming unemployment and underemployment, governments should declare and pursue, as a major goal, an active policy designed to promote full, productive and freely-chosen employment*.

14. This is particularly important in the case of host country governments in developing areas of the world where the problems of unemployment and underemployment are at their most serious. In this connection, the general conclusions adopted by the Tripartite World Conference on Employment, Income Distribution and Social Progress and the International Division of Labour (Geneva, June 1976) should be kept in mind**.

15. Paragraphs 13 and 14 above establish the framework within which due attention should be paid, in both home and host countries, to the employment impact of multinational enterprises.

16. Multinational enterprises, particularly when operating in developing countries, should endeavour to increase employment opportunities and standards, taking into account the employment policies and objectives of the governments, as well as security of employment and the long-term development of the enterprise.

17. Before starting operations, multinational enterprises should wherever appropriate, consult the competent authorities and the national employers' and workers' organisations in order to keep their manpower plans, as far as practicable, in harmony with national social development policies. Such consultation, as in the case of national enterprises, should continue between the multinational enterprises and all parties concerned, including the workers' organisations.

18. Multinational enterprises should give priority to the employment, occupational development, promotion and advancement of nationals of the host country at all levels in co-operation, as appropriate, with representatives of the workers employed by them or of the organisations of these workers and governmental authorities.

19. Multinational enterprises, when investing in developing countries, should have regard to the importance of using technologies which generate employment, both directly and indirectly. To the extent permitted by the nature of the process and the conditions prevailing in the economic sector concerned, they should adapt technologies to the needs and characteristics of the host countries. They should also, where possible, take part in the development of appropriate technology in host countries.

20. To promote employment in developing countries, in the context of an expanding world economy, multinational enterprises, wherever practicable, should give consideration to the conclusion of contracts with national enterprises for the manufacture of parts and equipment, to the use of local raw materials and to the progressive promotion of the local processing of raw materials. Such arrangements should not be used by multinational enterprises to avoid the responsibilities embodied in the principles of this Declaration.

* Convention (No. 122) and Recommendation (No. 122) concerning Employment Policy.

** ILO, World Employment Conference, Geneva, 4-17 June 1976.

Equality of opportunity and treatment

21. All governments should pursue policies designed to promote equality of opportunity and treatment in employment, with a view to eliminating any discrimination based on race, colour, sex, religion, political opinion, national extraction or social origin*.

22. Multinational enterprises should be guided by this general principle throughout their operations without prejudice to the measures envisaged in paragraph 18 or to government policies designed to correct historical patterns of discrimination and thereby to extend equality of opportunity and treatment in employment. Multinational enterprises should accordingly make qualifications, skill and experience the basis for the recruitment, placement, training and advancement of their staff at all levels.

23. Governments should never require or encourage multinational enterprises to discriminate on any of the grounds mentioned in paragraph 21, and continuing guidance from governments, where appropriate, on the avoidance of such discrimination in employment is encouraged.

Security of employment

24. Governments should carefully study the impact of multinational enterprises on employment in different industrial sectors. Governments, as well as multinational enterprises themselves, in all countries should take suitable measures to deal with the employment and labour market impacts of the operations of multinational enterprises.

25. Multinational enterprises equally with national enterprises, through active manpower planning, should endeavour to provide stable employment for their employees and should observe freely-negotiated obligations concerning employment stability and social security. In view of the flexibility which multinational enterprises may have, they should strive to assume a leading role in promoting security of employment, particularly in countries where the discontinuation of operations is likely to accentuate long-term unemployment.

26. In considering changes in operations (including those resulting from mergers, take-overs or transfers of production) which would have major employment effects, multinational enterprises should provide reasonable notice of such changes to the appropriate government authorities and representatives of the workers in their employment and their organisations so that the implications may be examined jointly in order to mitigate adverse effects to the greatest possible extent. This is particularly important in the case of the closure of an entity involving collective lay-offs or dismissals.

27. Arbitrary dismissal procedures should be avoided**.

28. Governments, in co-operation with multinational as well as national enterprises, should provide some form of income protection for workers whose employment has been terminated**.

* Convention (No. 111) and Recommendation (No. 111) concerning Discrimination in Respect of Employment and Occupation; Convention (No. 100) and Recommendation (No. 90) concerning Equal Remuneration for Men and Women Workers for Work of Equal Value.

** Recommendation (No. 119) concerning Termination of Employment at the Initiative of the Employer.

TRAINING

29. Governments, in co-operation with all the parties concerned, should develop national policies for vocational training and guidance, closely linked with employment*. This is the framework within which multinational enterprises should pursue their training policies.

30. In their operations, multinational enterprises should ensure that relevant training is provided for all levels of their employees in the host country, as appropriate, to meet the needs of the enterprise as well as the development policies of the country. Such training should, to the extent possible, develop generally useful skills and promote career opportunities. This responsibility should be carried out, where appropriate, in co-operation with the authorities of the country, employers' and workers' organisations and the competent local, national or international institutions.

31. Multinational enterprises operating in developing countries should participate, along with national enterprises, in programmes, including special funds, encouraged by host governments and supported by employers' and workers' organisations. These programmes should have the aim of encouraging skill formation and development as well as providing vocational guidance, and should be jointly administered by the parties which support them. Wherever practicable, multinational enterprises should make the services of skilled resource personnel available to help in training programmes organised by governments as part of a contribution to national development.

32. Multinational enterprises, with the co-operation of governments and to the extent consistent with the efficient operation of the enterprise, should afford opportunities within the enterprise as a whole to broaden the experience of local management in suitable fields such as industrial relations.

CONDITIONS OF WORK AND LIFE

Wages, benefits and conditions of work

33. Wages, benefits and conditions of work offered by multinational enterprises should be not less favourable to the workers than those offered by comparable employers in the country concerned.

34. When multinational enterprises operate in developing countries, where comparable employers may not exist, they should provide the best possible wages, benefits and conditions of work, within the framework of government policies**. These should be related to the economic position of the enterprise, but should be at least adequate to satisfy basic needs of the workers and their families. Where they provide workers with basic amenities such as housing, medical care or food, these amenities should be of a good standard***.

35. Governments, especially in developing countries, should endeavour to adopt suitable measures to ensure that lower income groups and less developed areas benefit as much as possible from the activities of multinational enterprises.

* Convention (No. 142) and Recommendation (No. 150) concerning Vocational Guidance and Vocational Training in the Development of Human Resources.

** Recommendation (No. 116) concerning Reduction of Hours of Work.

*** Convention (No. 110) and Recommendation (No. 110) concerning Conditions of Employment of Plantation Workers; Recommendation (No. 115) concerning Workers' Housing; Recommendation (No. 69) concerning Medical Care; Convention (No. 130) and Recommendation (No. 134) concerning Medical Care and Sickness.

Safety and health

36. Governments should ensure that both multinational and national enterprises provide adequate safety and health standards for their employees. Those governments which have not yet ratified the ILO Conventions on Guarding of Machinery (No. 119), Ionising Radiation (No. 115), Benzene (No. 136) and Occupational Cancer (No. 139) are urged nevertheless to apply to the greatest extent possible the principles embodied in these Conventions and in their related Recommendations (Nos. 118, 114, 144 and 147). The Codes of Practice and Guides in the current list of ILO publications on Occupational Safety and Health should also be taken into account*.

37. Multinational enterprises should maintain the highest standards of safety and health, in conformity with national requirements, bearing in mind their relevant experience within the enterprise as a whole, including any knowledge of special hazards. They should also make available to the representatives of the workers in the enterprise, and upon request, to the competent authorities and the workers' and employers' organisations in all countries in which they operate, information on the safety and health standards relevant to their local operations, which they observe in other countries. In particular, they should make known to those concerned any special hazards and related protective measures associated with new products and processes. They, like comparable domestic enterprises, should be expected to play a leading role in the examination of causes of industrial safety and health hazards and in the application of resulting improvements within the enterprise as a whole.

38. Multinational enterprises should co-operate in the work of international organisations concerned with the preparation and adoption of international safety and health standards.

39. In accordance with national practice, multinational enterprises should co-operate fully with the competent safety and health authorities, the representatives of the workers and their organisations, and established safety and health organisations. Where appropriate, matters relating to safety and health should be incorporated in agreements with the representatives of the workers and their organisations.

INDUSTRIAL RELATIONS

40. Multinational enterprises should observe standards of industrial relations not less favourable than those observed by comparable employers in the country concerned.

Freedom of association and the right to organise

41. Workers employed by multinational enterprises as well as those employed by national enterprises should, without distinction whatsoever, have the right to establish and, subject only to the rules of the organisation concerned, to join organisations of their own choosing without previous authorisation**. They should also enjoy adequate protection against acts of anti-union discrimination in respect of their employment***.

* The ILO Conventions and Recommendations referred to are listed in "Publications on Occupational Safety and Health", ILO, Geneva 1976, pp. 1-3.

** Convention No. 87, Article 2.

*** Convention No. 98, Article 1(1).

42. Organisations representing multinational enterprises or the workers in their employment should enjoy adequate protection against any acts of interference by each other or each other's agents or members in their establishment, functioning or administration*.

43. Where appropriate, in the local circumstances, multinational enterprises should support representative employers' organisations.

44. Governments, where they do not already do so, are urged to apply the principles of Convention No. 87, Article 5, in view of the importance, in relation to multinational enterprises, of permitting organisations representing such enterprises or the workers in their employment to affiliate with international organisations of employers and workers of their own choosing.

45. Where governments of host countries offer special incentives to attract foreign investment, these incentives should not include any limitation of the workers' freedom of association or the right to organise and bargain collectively.

46. Representatives of the workers in multinational enterprises should not be hindered from meeting for consultation and exchange of view among themselves, provided that the functioning of the operations of the enterprise and the normal procedures which govern relationships with representatives of the workers and their organisations are not thereby prejudiced.

47. Governments should not restrict the entry of representatives of employers' and workers' organisations who come from other countries at the invitation of the local or national organisations concerned for the purpose of consultation on matters of mutual concern, solely on the grounds that they seek entry in that capacity.

Collective bargaining

48. Workers employed by multinational enterprises should have the right, in accordance with national law and practice, to have representative organisations of their own choosing recognised for the purpose of collective bargaining.

49. Measures appropriate to national conditions should be taken, where necessary, to encourage and promote the full development and utilisation of machinery for voluntary negotiation between employers or employers' organisations and workers' organisations, with a view to the regulation of terms and conditions of employment by means of collective agreements**.

50. Multinational enterprises, as well as national enterprises, should provide workers' representatives with such facilities as may be necessary to assist in the development of effective collective agreements***.

51. Multinational enterprises should enable duly authorised representatives of the workers in their employment in each of the countries in which they operate to conduct negotiations with representatives of management who are authorised to take decisions on the matters under negotiation.

52. Multinational enterprises, in the context of bona fide negotiations with the workers' representatives on conditions of employment, or while workers are exercising the right to organise, should not threaten to utilise a capacity to transfer the

* Convention No. 98, Article 2(1).

** Convention No. 98, Article 4.

*** Convention (No. 135) concerning protection and facilities to be afforded to workers' representatives in the undertaking.

whole or part of an operating unit from the country concerned in order to influence unfairly those negotiations or to hinder the exercise of the right to organise; nor should they transfer workers from affiliates in foreign countries with a view to undermining bona fide negotiations with the workers' representatives or the workers' exercise of their right to organise.

53. Collective agreements should include provisions for the settlement of disputes arising over their interpretation and application and for ensuring mutually respected rights and responsibilities.

54. Multinational enterprises should provide workers' representatives with information required for meaningful negotiations with the entity involved and, where this accords with local law and practices, should also provide information to enable them to obtain a true and fair view of the performance of the entity or, where appropriate, of the enterprise as a whole*.

55. Governments should supply to the representatives of workers' organisations on request, where law and practice so permit, information on the industries in which the enterprise operates, which would help in laying down objective criteria in the collective bargaining process. In this context, multinational as well as national enterprises should respond constructively to requests by governments for relevant information on their operations.

Consultation

56. In multinational as well as in national enterprises, systems devised by mutual agreement between employers and workers and their representatives should provide, in accordance with national law and practice, for regular consultation on matters of mutual concern. Such consultation should not be a substitute for collective bargaining**.

Examination of grievances

57. Multinational as well as national enterprises should respect the right of the workers whom they employ to have all their grievances processed in a manner consistent with the following provision: any worker who, acting individually or jointly with other workers, considers that he has grounds for a grievance should have the right to submit such grievance without suffering any prejudice whatsoever as a result, and to have such grievance examined pursuant to an appropriate procedure***. This is particularly important whenever the multinational enterprises operate in countries which do not abide by the principles of ILO Conventions pertaining to freedom of association, to the right to organise and bargain collectively and to forced labour****.

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- * Recommendation (No. 129) concerning Communications between Management and Workers within Undertakings.
 - ** Recommendation (No. 94) concerning Consultation and Co-operation between Employers and Workers at the Level of the Undertaking; Recommendation (No. 129) concerning Communications within the Undertaking.
 - *** Recommendation (No. 130) concerning the Examination of Grievances within the Undertaking with a View to their Settlement.
 - **** Convention (No. 29) concerning Forced or Compulsory Labour; Convention (No. 105) concerning the Abolition of Forced Labour; Recommendation (No. 35) concerning Indirect Compulsion to Labour.

Settlement of industrial disputes

58. Multinational as well as national enterprises jointly with the representatives and organisations of the workers whom they employ should seek to establish voluntary conciliation machinery, appropriate to national conditions, which may include provisions for voluntary arbitration, to assist in the prevention and settlement of industrial disputes between employers and workers. The voluntary conciliation machinery should include equal representation of employers and workers*

Geneva, 16 November 1977.

* Recommendation (No. 92) concerning Voluntary Conciliation and Arbitration.

A N N E X

List of international labour Conventions and Recommendations referred to in the Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy

Conventions

- Convention (No. 29) concerning Forced or Compulsory Labour, 1930.
- Convention (No. 87) concerning Freedom of Association and Protection of the Right to Organise, 1948.
- Convention (No. 98) concerning the Application of the Principles of the Right to Organise and to Bargain Collectively, 1949.
- Convention (No. 100) concerning Equal Remuneration for Men and Women Workers for Work of Equal Value, 1951.
- Convention (No. 105) concerning the Abolition of Forced Labour, 1957.
- Convention (No. 110) concerning Conditions of Employment of Plantation Workers, 1958.
- Convention (No. 111) concerning Discrimination in Respect of Employment and Occupation, 1958.
- Convention (No. 115) concerning the Protection of Workers against Ionising Radiations, 1960.
- Convention (No. 119) concerning the Guarding of Machinery, 1963.
- Convention (No. 122) concerning Employment Policy, 1964.
- Convention (No. 130) concerning Medical Care and Sickness Benefits, 1969.
- Convention (No. 135) concerning Protection and Facilities to be Afforded to Workers' Representatives in the Undertaking, 1971.
- Convention (No. 136) concerning Protection against Hazards of Poisoning arising from Benzene, 1971.
- Convention (No. 139) concerning Prevention and Control of Occupational Hazards caused by Carcinogenic Substances and Agents, 1974.
- Convention (No. 142) concerning Vocational Guidance and Vocational Training in the Development of Human Resources, 1975.

Recommendations

- Recommendation (No. 35) concerning Indirect Compulsion to Labour, 1930
- Recommendation (No. 69) concerning Medical Care, 1944.
- Recommendation (No. 90) concerning Equal Remuneration for Men and Women Workers for Work of Equal Value, 1951.
- Recommendation (No. 92) concerning Voluntary Conciliation and Arbitration, 1951.
- Recommendation (No. 94) concerning Consultation and Co-operation between Employers and Workers at the Level of the Undertaking, 1952.
- Recommendation (No. 110) concerning Conditions of Employment of Plantation Workers, 1958.
- Recommendation (No. 111) concerning Discrimination in Respect of Employment and Occupation, 1958.
- Recommendation (No. 114) concerning the Protection of Workers against Ionising Radiations, 1960.
- Recommendation (No. 115) concerning Workers' Housing, 1961.
- Recommendation (No. 116) concerning Reduction of Hours of Work, 1962.
- Recommendation (No. 118) concerning the Guarding of Machinery, 1963.
- Recommendation (No. 119) concerning Termination of Employment at the Initiative of the Employer, 1963.
- Recommendation (No. 122) concerning Employment Policy, 1964.
- Recommendation (No. 129) concerning Communications between Management and Workers within the Undertaking, 1967.
- Recommendation (No. 130) concerning the Examination of Grievances Within the Undertaking with a View to their Settlement, 1967.
- Recommendation (No. 134) concerning Medical Care and Sickness Benefits, 1969.
- Recommendation (No. 144) concerning Protection against Hazards of Poisoning arising from Benzene, 1971.
- Recommendation (No. 147) concerning Prevention and Control of Occupational Hazards caused by Carcinogenic Substances and Agents, 1974.
- Recommendation (No. 150) concerning Vocational Guidance and Vocational Training in the Development of Human Resources, 1975.

Offprints of the above instruments can be ordered from ILO Publications, International Labour Office, CH-1211 Geneva 22 (Switzerland).

ADDENDUM

*Addendum to the Tripartite Declaration of Principles
concerning Multinational Enterprises and Social Policy*
(adopted by the Governing Body of the International Labour Office
at its 238th Session (Geneva, November 1987))

*References to Conventions and Recommendations
in the Tripartite Declaration of Principles
concerning Multinational Enterprises and Social Policy*

A number of international labour Conventions and Recommendations containing provisions relevant to the Declaration are referred to in footnotes in the Declaration as well as in an annex. These footnotes do not affect the meaning of the provisions of the Declaration to which they refer. They should be considered as references to relevant instruments adopted by the International Labour Organisation in the corresponding subject-areas, which have helped shape the provisions of the Declaration.

Since the adoption of the Declaration by the Governing Body on 16 November 1977, new Conventions and Recommendations have been adopted by the International Labour Conference. This makes it necessary to include a new list of Conventions and Recommendations adopted since 1977 (including those adopted in June 1977), containing provisions relevant to the Declaration, and this list is set out below. Like the footnotes included in the Declaration at the time of its adoption, the new references do not affect the meaning of the provisions of the Declaration.

In keeping with the voluntary nature of the Declaration, all of its provisions, whether derived from ILO Conventions and Recommendations or other sources, are recommendatory, except of course for provisions in Conventions which are binding on the member States which have ratified them.

*List of Conventions and Recommendations
adopted since 1977 (inclusive) which contain
provisions relevant to the Declaration*

Number and title of Convention:	Paragraphs of the Declaration to which the instrument is relevant:
No. 148 concerning the Protection of Workers against Occupational Hazards in the Working Environment Due to Air Pollution, Noise and Vibration, 1977	36
No. 154 concerning the Promotion of Collective Bargaining, 1981	9, 49
No. 155 concerning Occupational Safety and Health and the Working Environment, 1981	36
No. 156 concerning Equal Opportunities and Equal Treatment for Men and Women Workers: Workers with Family Responsibilities, 1981	21
No. 158 concerning Termination of Employment at the Initiative of the Employer, 1982	9, 26, 27, 28
No. 161 concerning Occupational Health Services, 1985	36
No. 162 concerning Safety in the Use of Asbestos, 1986	36

**Number and title
of Recommendation:**

**Paragraphs of the Declaration to
which the instrument is relevant:**

No. 156	concerning the Promotion of Workers against Occupational Hazards in the Working Environment Due to Air Pollution, Noise and Vibration, 1977	36
No. 163	concerning the Promotion of Collective Bargaining, 1981	51, 54, 55
No. 164	concerning Occupational Safety and Health and the Working Environment, 1981	36
No. 165	concerning Equal Opportunities and Equal Treatment for Men and Women Workers: Workers with Family Responsibilities, 1981	21
No. 166	concerning Termination of Employment at the Initiative of the Employer, 1982	9, 26, 27, 28
No. 169	concerning Employment Policy, 1984	9, 13
No. 171	concerning Occupational Health Services, 1985	36
No. 172	concerning Safety in the Use of Asbestos, 1986	36

Offprints of the above instruments can be ordered from ILO Publications, International Labour Office, CH-1211 Geneva 22 (Switzerland).

Other ILO publications on multinationals

Multinational enterprises: Information and consultation concerning their manpower plans

Law and national practice largely condition the behaviour of multinational enterprises at home and abroad. While a multinational's most frequent contact before starting up new operations is usually with government departments, the focus later shifts to the regular provision of information to the workers and to informing and consulting them via trade unions or works councils in the plant when changes are contemplated which might have major implications for employment. This study analyses the replies of over 50 countries to a questionnaire sent to governments and to employers' and workers' organisations. Interviews were also held with the management and workers' representatives in the headquarters or subsidiaries of ten multinationals from a cross-section of industry in the Republic of Côte d'Ivoire, the Federal Republic of Germany, Italy, Luxembourg, Nigeria, Switzerland, the United Kingdom and the United States.

ISBN 92-2-105094-7

25 Swiss francs

Safety and health practices of multinational enterprises

Technological change and the emergence of new products and production processes in the industrialised countries, together with growing industrialisation in Third World countries, have brought the question of occupational safety and health into sharper focus. As major employers and as innovators of advanced technology in many parts of the world, multinational enterprises have a key role to play in the development of protective measures for those of their workers who are exposed to potentially hazardous processes and substances.

In this monograph the occupational safety and health standards prevailing in eight selected MNEs from a cross-section of industry in seven countries (Federal Republic of Germany, Mexico, Netherlands, Nigeria, Switzerland, United Kingdom, United States) have been investigated, through in-depth interviews with management and workers in these MNEs and through on-site inspections at 12 of their subsidiaries. An attempt has also been made to ascertain how the pertinent information on this subject is transferred from the parent companies to their various subsidiaries.

ISBN 92-2-103742-8

17.50 Swiss francs

Technology choice and employment generation by multinational enterprises in developing countries

In this monograph an attempt is made, through a synthesis of several case studies, to shed light on a number of questions, including the impact of technology choice on the generation of employment. Five of the case studies covered the choice of technology by MNE subsidiaries in Brazil, India, Nigeria and Singapore. Two other case studies surveyed large samples of enterprises in Brazil and Kenya, while another examined MNEs based in the Third World. The industries covered included computers, consumer electronics, food and drink, metal products, motor vehicles and synthetic fibres.

Although the actual range of choice may be narrower than the potentially available technologies, the research showed that there was seldom a single best choice of technology. While none of the enterprises analysed had deliberately chosen labour-intensive technologies, their ability to continue to make the "right" choice over the years had a significant impact on direct employment. Furthermore, it became clear that the linkages between foreign subsidiaries and local enterprises needed to be strengthened, as the number of new jobs generated among the local suppliers can often be several times higher than those provided directly by MNEs.

ISBN 92-2-103718-5

17.50 Swiss francs

Multinational Enterprises Programme Working Papers

This series of Working Papers is devoted to the most recent research on a variety of subjects related to the on-going programme of the ILO on multinational enterprises. For example, country and regional studies cover topics such as technology choice, export processing zones and decision-making, or give up-to-date statistics on the employment effects of multinational enterprises in various developing and industrialised countries. They are signed by their authors, who are experts in their own fields, and are intended to stimulate discussion and critical comment. Over 50 titles are currently available.

ISSN 1011-4971

Each title: 15 Swiss francs

Prices subject to change without notice

Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy

This Declaration, adopted by the Governing Body of the ILO on 16 November 1977, during its 204th Session, sets out principles in the fields of employment, training, conditions of work and life and industrial relations which governments, employers' and workers' organisations and multinational enterprises are recommended to observe on a voluntary basis. Its follow up machinery consists of periodic reports by governments on the effect given to the Declaration (after consultation with employers' and workers' organisations) and of a procedure for the examination of disputes concerning the application of the Declaration by means of interpretation of its provisions. A standing Governing Body Committee has been set up in this connection.

Price: 3.50 Swiss francs

ISBN 92-2-101896-2

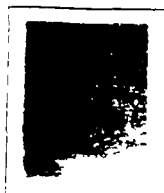
ATTACHMENT

NO. 4

Buy Low, Sell High, Don't Sell Out.

Some very encouraging news
on how to invest wisely and well.

**SOCIAL
INVESTMENT
FORUM**




*or many people, "goodness" has
always had this little problem.*

There just hasn't been good money in it.

*Or at least that's how it seemed. Then some
people decided to track the performance of
community investments and mutual funds that
invested only in "good," socially responsible
companies. When they compared the
performance of these "good" funds with other
funds, they found out something very gratifying:*


"Goodness" is more than just its own reward.



"Social investing" is investing in enterprises that reflect the investor's values. Investors who screen out companies that do business in South Africa are the best-known recent examples of socially responsible investors, but many investors also screen out tobacco and alcohol producers, weapons manufacturers, and companies with substandard environmental records.

Social investors also screen positively, seeking companies with records for strong corporate citizenship, outstanding employee relations, and safe, useful products.

In addition, social investing includes "community investment," which often involves investing in low income communities to improve conditions there.



In large and growing numbers, the nation's social investors are joining the Social Investment Forum. To their surprise, many of these new members have noted a high incidence of wing-tips and button-down shirts among the membership.

This suggests that social consciousness is moving into the investing mainstream. More importantly, it reflects the fact that Forum members, liberal or conservative, radical or reactionary, share the belief that there are financially sound investments consistent with a commitment to a healthy environment, peace, and social and economic justice.

In addition, Forum members share an operative belief that people who want to put their money where their values are need support, information, wise counsel, and a network.

If you want to improve the environment; promote economic development; discourage weapons production, apartheid, or the production of tobacco — whatever you believe — you should be able to invest based on that belief.

And you can do that without sacrificing your financial goals.



Where we come in.

The Forum acts as this country's facilitator, advocate, and national clearinghouse for information on social investing.

We provide our members with the information they or their clients need to invest responsibly, including a wealth of recent literature on the field.

We connect our members with the key people involved in social investing — investors and other sources of funds, financial institutions, financial advisors and planners — the entire array of people behind this growing \$625 billion industry. We also include and serve many of the nation's pioneers of commitment to social change through community investment.

Through all these resources, we can put you in touch with social investment possibilities in your community.

What's in the Forum for you.

A network — and a guide to it

By joining the Social Investment Forum, you become a partner in our national network.

You also receive the comprehensive membership directory that lists Forum members. This indispensable guide lists mutual funds; venture capital fund managers; individual and institutional investors; research providers; community development banks and loan funds; and brokers, advisors, and planners.

News on socially responsible investing

The Forum newsletter regularly covers developments in the field, profiles members in depth, summarizes quarterly meetings, and keeps you informed.

A "ticker tape" on good "good" investments

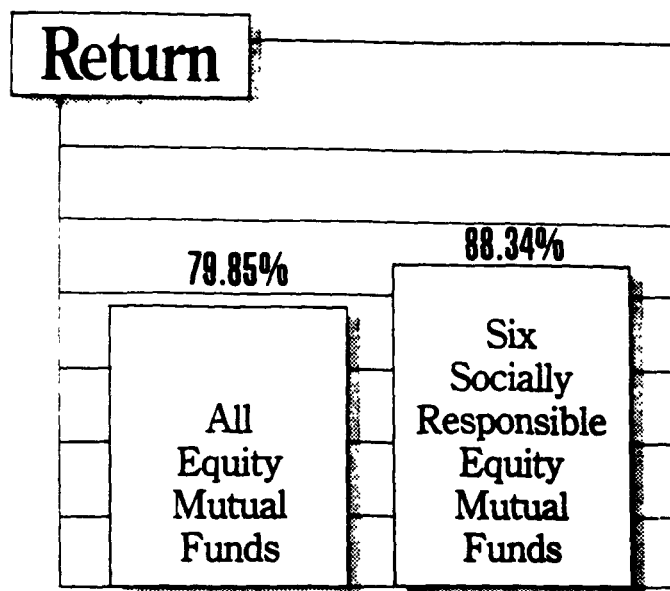
The Forum also is a clearinghouse through which you can track the performance of socially invested assets and access the latest information on socially responsible investing.

A voice

Your membership entitles you to attend local and regional Forum meetings with presentations and panels on social investing.

Your membership also supports the Forum's nationwide advocacy for socially responsible investing.

In short, your membership benefits you, the organization, and the development of socially responsible investing.



Comparison of total reinvested cumulative performance
12/31/86 - 12/31/91

Source: *Barron's Lipper Gauge* 2/10/92

"By the tens of thousands, Americans are refusing to compromise their social and political principles in the quest for investment profits. As a result, . . . socially responsible investing . . . is today's fastest growing money-management style. . . . Moreover, converts to the clean and green trend are discovering that, contrary to what they have heard from Wall Street types in the past, they can invest for the common good and still beat the average common stocks."

Money Magazine, June 1991

"Who says you can't have it all? . . . a 'socially responsible' mutual fund that excludes polluters, purveyors of alcohol, tobacco, or gambling, companies doing business in South Africa, and weapons manufacturers, last year was up 10.5%, vs. a 3.1% loss for Standard & Poor's 500-stock index, making it the nation's top-performing balanced fund."

Fortune, April 8, 1991

"The first step for investors new to the social fund field should be the Social Investment Forum."

Business Week, December 24, 1990

"In the long run, success in the marketplace [with community investments], not good intentions or piles of money, is what improves peoples' lives."

New Republic, May 1989

". . . had I thought to park my discretionary income in a fund that rigorously screens out morally reprehensible corporations, I would not be sitting here making paper hats out of my mutual fund prospectuses . . ."

Barron's, November 30, 1987

A marriage of goodness and prudence.

For centuries, money that was used to do good was called charity, and money that was used to make more money was called investment.

But as this brochure's introduction suggests, if you invest in social change you can do well and do good at the same time. You can be a responsible citizen and still provide for your future and your family.

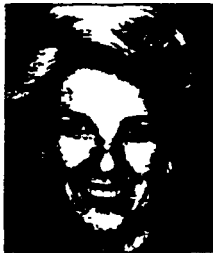
As a first step, we strongly encourage you to become a member of the Social Investment Forum, a reader of our newsletter, a participant at our meetings and seminars, and a partner in our valuable and growing network.

Your modest investment in joining the Social Investment Forum will pay you back handsomely, and will represent the first vital step toward putting your money where it will do the most good — in every sense of the word.

**SOCIAL
INVESTMENT
FORUM**

Social Investment Forum
430 First Avenue North - Suite 290
Minneapolis, Minnesota 55401
612-333-8338

Clean-Hands Investing



These days, socially conscious mutual funds show that good guys can finish first

Humorist Colin McEnroe got it right. "By now," he wrote in *Mirabella*, "everyone knows that values are the BMW's of the nineties and that you're nobody if you don't have some." On that premise, the tiny industry of mutual funds that makes socially conscious investments is hoping to extend its reach. Nine new funds are expected this spring and summer, boosting the group to 25.

Clean-hands mutual funds lay out strict criteria—called social screens—through which every stock or bond they buy has got to pass. Most of them screen out weapons companies, nuclear utilities and companies doing business with South Africa (except the likes of Merck, which sells "humane" medical products there). The funds say that they're waiting for black South Africans to get the vote—or a clear path to it—before lifting the investment ban.

Beyond these basics, conscience funds diverge. Investors will have to check the prospectus to see if the fund services their moral goals. Most screen out sin stocks—tobacco, liquor and gambling. Most turn down polluters like Waste Management. Any fund with "environment" in its title and Waste Management in its portfolio, like the Freedom Environmental Fund, isn't socially screened.

Some fund managers screen for hiring and promoting women and minorities. Some avoid firms that use animals for testing. The Parnassus Fund won't support any top executive who, by its lights, is "grossly overpaid." Several managers have shunned Corning ever since the explosive controversy over Dow Corning's breast-implant products. A few pension funds screen for Northern Ireland.

Northern Ireland? Yep. The MacBride Principles ask an American firm doing business there not to discriminate on the basis of religion—courtesy of the Irish-American lobby. Carolyn Mathiasen of the Investor Responsibility Research Center (IRRC) in Washington, D.C., expected political activists to develop a set of Tiananmen Square principles after China so violently suppressed the democracy movement. But the idea flickered and died. "It takes a well-organized, caring community to push for this sort of thing," she says, "and the Chinese-Americans didn't push."

By now, you'll have noticed that conscience funds serve certain types of consciences—all liberal. No "First Aggressive Conservative Fund" has arisen to channel money into profitable polluters, search out high-growth nonunion companies or build a portfolio of firms that manufacture products in Mexico. Clearly, an unfilled marketing niche. Pat Buchanan, call your office.

The question facing white-hat investors is whether their ideals cost them money. On the evidence, it seems not.

■ In May 1990, the Cambridge, Mass., investment advisory firm of Kinder, Lydenberg, Domini & Co. set up the Domini Social Index, which tracks the investment returns of 400 companies thought to be clean. Over that period, the good guys outperformed the Standard & Poor's 500-stock index by 7 percent. There's a year-old no-load mutual fund based on this index, called the Domini Social Index Trust.

■ The few funds that emphasize environment stocks (waste disposal, pollution control) prove that it's the manager who makes the difference, not whether a fund is socially screened. The group as a whole dropped 9 percent over 12 months, as measured by Lipper Analytical Services. But the New Alternatives Fund, which focuses on clean-energy companies, rose 6.2 percent (not reduced for sales charges), while Schield Progressive Environmental lost a big 22.5 percent (its manager just left).

■ The broader conscience funds occasionally break through to stardom. In 1988, Parnassus and Calvert-Ariel Growth made Lipper's list of top 10 funds (Parnassus has had some bad years since and Ariel Growth is closed to new investors). Pax World of Portsmouth, N.H. (a no-load fund; 800-767-1729), which topped the list of balanced funds in 1990, is rated "superior" by Morningstar, Inc., which tracks fund performance. Dreyfus Third Century in Uniondale, N.Y. (no-load; 800-782-6620), gets a nod both from Morningstar and the Mutual Fund Forecaster.

■ In March 1990, the teachers' retirement fund TIAA/CREF created a Social Choice Account for members seeking clean investments. It's up 30 percent, compared with 20 percent for the Dow Jones industrial average.

Those are just the stock funds. You can also get conscience money-market funds from Working Assets in San Francisco (800-533-3863) and Calvert (800-368-2745). Calvert, which charges sales loads, also offers a bond fund. For the names of brokers and planners who do social screening, send \$45 for the Social Investment Services Guide, Social Investment Forum, 430 First Avenue North, Suite 290N, Minneapolis, Minn. 55401.

No clean-hands fund has yet made *Forbes* magazine's annual Honor Roll for top long-term performance. But your yields can be above average, which is enough.

Associate: VIRGINIA WILSON

White-Hat Funds

Adjusted for sales charges, many "conscience" funds that invest in stocks have delivered handsome, above-average returns.

Fund	Average annual returns	
	1-year	5-year
Calvert-Ariel Growth*	8.9%	12.9%
Dreyfus Third Century	8.8%	11.2%
Pax World	10.5%	10.7%
New Alternatives	8.9%	7.9%
Parnassus	24.7%	6.1%
Calvert Managed Growth	3.4%	6.8%
U.S. Equity-fund average	11.8%	8.1%

*LOADED TO NEW INVESTORS

SOURCE: MORNINGSTAR

A Good Mix: Social Action With Profits

WHEN Mayor David N. Dinkins of New York said Thursday that he was likely to back Nelson Mandela's request that the city lift economic sanctions against South Africa, he was in line with one of the fastest-growing investment trends using economic muscle to forge social change, as well as earn a good return.

The Mayor released a letter from Mr. Mandela, the president of the African National Congress, saying,

We will issue a call to you and other heads of government who have helped our cause to assist in building our economy," as soon as an interim government is established. Mr. Mandela said he wanted "to discuss re-introduction of trade and investment."

That is coming full circle, for many investors, both individual and institutional, the first notion of socially responsible investing came in the 1970's, when the Rev. Leon Sullivan called upon American business and investors to avoid putting money into South Africa because of its policy of apartheid then. And the notion quickly spread to other causes.

Janet Prindle, a partner in Neuberger & Berman, and Farha-Joyce Haboucha, a senior portfolio manager at the firm, who head its Socially Responsive Investment Services, said that a decade ago socially responsible investors were primarily liberals who avoided putting money into stocks of companies that offended them — either because of products like cigarettes or alcohol or because their plants polluted or because they had poor records in employing minorities and women.

"Today it's not just hippies," Ms. Prindle said. People across the political spectrum are investing according to the dictates of their own consciences, believing that business has the power to bring about changes in society. "Some yuppies want to be corporate good citizens," she said.

One difference now, Ms. Haboucha said, "is that we don't approach it so much from an avoidance position as looking for companies that are really making a change — leadership."

One such company, Ms. Haboucha said, is Brooklyn Union Gas. Natural gas is environmentally sound, and the company has a strong commitment to employing women and minorities, she said, along with "amazing support for community programs and special handicapped programs," and

Neuberger & Berman, which manages \$21 billion of investments, bases its investment decisions first on fundamental analysis, screening stocks for good return on equity, strong cash flow, low price-earnings ratios and other such standards.

Next, individually tailored social criteria are considered for the 15 clients, including individuals and pension funds, with \$25 million in the firm's socially responsive investment program. Nationally, such investments have grown to \$625 billion from \$40 billion eight years ago, according to the Social Investment Forum, a Minneapolis-based association.

"There isn't a right or wrong," Ms. Prindle said. "People have to decide what is most important to them." For example, she said, some investors shun Philip Morris, which stacks up well in financial analysis, because they dislike its beer and tobacco products. Others love it because it has a strong record of employing women and minorities.

Wal-Mart Stores, on the other hand, passes the social criteria with flying colors, but it is trading at too high a price-earnings multiple for the firm to hold it, she said.

Douglas E. Salvati, manager of Shearson Lehman Brothers' Socially Responsible Investing Program, which has \$60 million under investment, has among his current holdings H & R Block, Equitable Resources, a natural gas company, Mylan Laboratories, which makes generic drugs, H. F. Ahmanson, a savings and loan, and Superior Industries International, which makes aluminum wheels for cars.

He cited as companies to watch because they are "pure plays" from an environmental standpoint Air and Water Technology, Safety-Kleen, Nalco Chemical and Betz Laboratories. However, he is not recommending them at present because they are overvalued by his financial criteria.

Neuberger & Berman's program is for clients who want professional management for portfolios of at least \$250,000. The Shearson program is similar with a \$100,000 minimum. However, investors with accounts of any size can work with individual brokers to use social criteria.

Ms. Haboucha recommended a book, "Investing for a Better World," from the Council of Economic Priorities in New York, as a good way to learn more. Also, mutual funds like the Evergreen family of funds in Harrison, N.Y., and the Pax World Fund, Portsmouth, N.H., appeal to socially conscious investors.

"Some people are concerned that a social screen will limit investment opportunities," Mr. Salvati said, "but we have not sacrificed diversification, and our performance has been competitive." Both he and the Neuberger & Berman team said they had generally outperformed the Standard

**SOCIAL
INVESTMENT
FORUM**

430 First Avenue North, Suite 290
Minneapolis, Minnesota 55401

Socially Responsible Investing: Where We've Been, Where We're Going

by John E. Schultz

Socially responsible investing enters the final decade of the 20th century having proven itself an effective, viable investment strategy. Throughout the concluding ten years of the century, growth in the concept and practice will lay the foundation for building social investing into the conventional investment process of the 21st century.

What Is It?

What is "socially responsible investing?" While in practice its adherents vary in their emphasis, a general definition of the term is quite simple: socially responsible investing is the process of allocating scarce financial resources among competing available opportunities with the object of maximizing the financial and social well-being of both the investor and the organization in which the investment is being made.

Who Does It?

And who are social investors? Originally, they were the religious and social activists who insisted on compatibility between their philosophical beliefs and their financial investments. These trailblazing investors often refused to invest in particular industries, like tobacco and alcohol.

As recognition of the financial potential of such intellectual compatibility grew, groups formed to develop mutual funds that reflected their concerns. Along the way, an increasing number of individuals added their collective financial strength to the socially responsible investment pool.

From where are the newest social investors coming? Increasingly, they come from the mainstream of financial management. No longer dominated by social activists, the religious and progressive communities have been joined by the massive monies of the public pension funds, the private pension funds, and the conventional money managers who are modifying their advisory role to recognize the demand for social considerations.

Financial Returns

Results? Performance has been solid, competitive, sometimes even stellar. In 1988, two of the top ten mutual funds in the United States were socially responsible mutual funds. In 1990, the top performing balanced mutual fund was a socially responsible mutual fund. In 1991, a socially responsible mutual fund returned more than 52% to its investors. The average five-year return to 12/31/91 of the six publicly available socially responsible equity mutual funds was 10% greater than the average return of all equity mutual funds during that period. The ten-year record of the return of the portion of the Standard & Poor's 500 Index stocks not in South Africa as compared to the entire 500 Index has shown only marginal advantage for the total 500. In more recent years, the South Africa-free portion of the index has actually outperformed the

entire index.

During the past two decades of development, socially responsible investment organizations have developed track records demonstrating that the potential for financial return need not be forfeited by the consideration of social criteria. Several studies have shown that the embrace of social criteria is not a financial giveaway. These studies have demonstrated clearly that the return on investment is primarily a function of the selective skill of the investment manager. And because social investors now have very respectable performance records, the concept of socially responsible investing enters the final decade of the twentieth century as an effective, viable investment strategy.

Viet Nam

The Viet Nam period in the United States was unsettling. But out of that worldwide tragedy grew an increasing recognition of the power of the individual. Eugene McCarthy ventured forth to New Hampshire and overwhelmed an incumbent president. Small groups of war protestors grew in size and recognition and, eventually, in power. A small group of Methodist clergymen formed a mutual fund, Pax World, dedicated to the premise that financial success in the marketplace could be obtained without investment in the weapons industry. Twenty years later that fund stood at the pinnacle of the balanced mutual funds in America, outperforming all others.

South Africa

Church groups awoke from their investment slumber in the late '70s to fight legislated racism in South Africa. Recognizing the strength of the individual demonstrated in the Viet Nam era, the church groups flexed their considerable financial investment muscle and demanded that the companies in which they invested cease their support of a repressive government with an abhorrent system of racial domination.

College and university endowments joined the church organizations. Public pension funds added mass to the group. The groundswell of financial objection to the system of apartheid gave Congress the impetus in 1986 to pass an official United States economic sanctions bill over the veto of then President Ronald Reagan.

These financial pressures, combined with banking reluctance and restrictive purchase agreements, are leading to a revision of white dominance over the black majority in South Africa. And while the system certainly has not yet reached the point of equality, the entire world applauds the beginning steps that the South African government has made toward racial equality.

The Environment

Earth Day 1990 brought an international surge of recognition of the desperate state of the

environment on this planet called Earth. Around the globe, more than 200 million people participated. Groups ranging from large international environmental organizations all the way down to tiny, intensely effective, completely unfunded organizations formed to address specific local problems took part in this acknowledgment. Indeed, a vast majority of the population in the United States believes that environmental problems are of paramount concern for both the economic and social future of this country.

Today the social investment arena is dominated by environmental concerns. The number of issues is large and the ability to adequately address industrial impact varies significantly. But the magnitude of degradation and our interconnectedness demand the attention of everyone. The meager successes in the environmental sphere have been exclusively those of elimination, not management. The problems of DDT, phosphorous, and lead are solved. It appears the CFC problem will be resolved through the same process of abolition. Unfortunately in this last case, the deterioration of the ozone layer will continue well beyond the cessation of the manufacture of CFCs.

Globalization

Overhanging environmental concerns is the fact that the transformation of nationalistic economic systems into a global society will result in the eventual merging of international prices and wages. Globalization requires the recognition that the United States has 5 percent of the world's population, consumes 25 percent of the world's resources, and creates at least that percentage of global garbage. Real global economic equality requires the completely unbelievable assumption of a world with three billion motor vehicles. Finally, environmentalism presupposes the headlong race to return the biosphere's underground carbon reserves to the atmosphere, with the knowledge that a carbon-laden atmosphere is significantly warmer than the present atmosphere. The problems are profound, the analysis is complex, the solutions are interrelated, the opportunities are immense.

Expanded Education

Expanded education and committed action are the catalysts in the growth of socially responsible investing. School children at an early age have an increased understanding of the relationship between economic activity and the biosphere. The colleges and universities offer varied, comprehensive and increasingly refined studies in the relationship between people and pollution. This expansion of knowledge has led to an increased commitment to action by individuals and institutions, consumers and investors, and even (at long last) governments. There is a growing recognition of the limits of eco/technology at the more sophisticated levels of

business management a change in perception that is long overdue

But all will not go smoothly. Robert Heilbroner, writing in the September 10, 1990, *New Yorker* said, "the closing window of environmental tolerance will impose an entirely new condition of caution and constraint on a civilization whose historical thrust has been in just the opposite direction."

This new condition presents substantial challenges to both political and corporate functioning in the existing state of affairs. It requires the recognition that the ownership of assets does not convey unlimited privilege upon the owner. It imposes the acknowledgment that proprietorship conveys responsibility. It demands that shareholders consider returns beyond their own self-interest.

Corporate Theory

Nineteenth century industrial development in a world with a population of less than one billion and an uninhabited frontier was compatible with the dominant theory of business management, that "the primary objective of management is to maximize the wealth of the shareholders."

But a twenty-first century with more than five billion world inhabitants and no remaining habitable frontier requires a systematic rethinking. And while the change is not a great modification of semantics, it is philosophically profound. For the dominant theory of business management in the twenty-first century MUST become that "the primary objective of management is to maximize the wealth of the STAKEHOLDERS."

Stakeholders

This stakeholder group includes shareholders and employees, customers and vendors, the community and the environment. Upon consideration, it becomes apparent that balancing the return to these six groups cannot be achieved solely with objective decision-making. This is a profound change in

business management because it requires managers to make subjective decisions as they attempt to balance the returns to these six groups and achieve a combined performance that is optimal to the group as a whole.

There is a growing awareness that an exclusively objective decision-making process is not appropriate for the twenty-first century world. The subjective decision-making demanded by recognition of the stakeholder concept casts a clear light on the philosophical inanity often expressed by those who choose to make no social considerations: that the best use of financial resources is to make as much money as possible and allocate a desired portion of those gains to social considerations. This position breaks down immediately when one contemplates the absurdity of achieving financial returns in the tobacco industry and allocating those gains to cancer research, or gaining great profits in the weapons industry and contributing those monies to peace initiatives, or profitably investing in the securities of the major polluters of the world and using the money to support environmental conservationists.

The Future

Fortunately the twenty-first century arrives at a time when we are increasingly recognizing the necessity of subjective decision-making and developing the ability to make those decisions. Young people with broader environmental educations are joining the business world. Law schools nearly universally offer courses in environmental law and graduate schools of business are beginning to offer courses on the relationship between corporate activity and the environment. New corporate managers sensitive to the off-balance-sheet considerations of the community and the environment are advancing to positions of responsibility in corporate management. At all educational levels, we are starting to acknowledge more fully the interrelationship of

industry and society.

Altogether, this evolving educational process provides more broadly trained managers to our industrial institutions. It gives government employees a better understanding of the public role in addressing the problems that we presently face while teaching a citizenry that is increasingly aware of its power to effect institutional behavior. And it supplies investment advisors with a greater comprehension of the financial advantages of socially conscious investment opportunities.

Social Universality

As a result of these dramatic changes, we are witnessing the modification of corporate management philosophy and the recognition of the interrelationship between corporate activity and the quality of our social fabric. These changes will lead to the universal application of social criteria in the investment decision-making process. While still the exception, the concept of social investing is reaching a critical mass. It is approaching the condition wherein it will begin its drive to maturity, its drive into the twenty-first century when the conventional norm will be to include social considerations in all investment decisions.

The Forum

The Social Investment Forum has played a leadership role in the development of this consciousness. Our members include the professionals who developed the concept and are committed to the practice of socially responsible investing. We encourage your membership and participation in the Forum.

John E. Schultz, President
Social Investment Forum
1990 - 1991

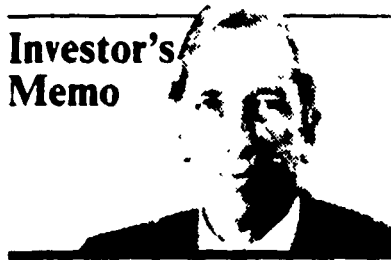


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BUSINESS

JIM LAWLESS

Investor's
Memo



Investing with a conscience

The Persian Gulf War has not triggered the conscience of many stock buyers, investment experts say, unless you count the woman who talked her husband out of buying stock in a handgun company last week.

The war serves up terrible reminders of many things that matter to the socially responsible investing public. These include screening out stocks of armament companies, supporting investments in alternative energy sources and applying pressure to halt environmental abuse as evidenced by another gigantic oil spill.

"I have been asking the same question: Why hasn't the war generated more interest?" said Peter Kinder, whose Cambridge, Mass.-based research firm, Kinder, Lydenberg, Domini & Co. Inc., has established an index that measures the performance of socially screened stocks.

It could be that investors are dazed by the sudden involvement, Kinder said. "There is still a sense of complete unreality of war, especially by the affluent middle- and upper-class people" who represent the largest group of the investment community.

Kinder's Domini Social Index tracks 400 stocks that have been screened for socially responsible traits. The stocks have been at least as strong as those in the Standard & Poor's 500 stock index, according to Kinder's charts of the Domini index performance since 1986.

College Towns

Stockbrokers in college towns, considered prime territory for social behavior by investors, report very little war-related investment interest on either side of the issue. "No defense stock buying or selling," said James J. Raymond, investment executive at the Ames office of MidAmerica Management Corp.

People who are concerned investors still maintain that objective, said Gene Brawner, manager of the Iowa City office of Dain Bosworth Inc., "but I have not seen any renewed interest because of the war."

Brawner said he has a group of long-time clients who were probably among the first socially responsible investors. They are members of the Mennonite religion and for years have had nothing to do with investments in companies that are in the war, tobacco and alcohol businesses, he said.

Waterloo stockbroker Timothy Skahill, manager of the A.G. Edwards & Sons office, indicated that he has had a few brushes recently with socially related investment decisions, and he said that the war may have been part of one refusal to buy a stock.

Gun Company

Edwards analysts are recommending the common stock of Sturm Ruger Co. (OTC 25), maker of pistols, revolvers and rifles. The stock is a "buy" for conservative investors seeking stability in their portfolios, the analysts reported.

Skahill said he mentioned the stock to a client, who agreed that Sturm

Ruger looked like a good company, but his wife didn't want anything to do with a "handgun company," so they did not purchase the stock.

The Social Investment Forum of Minneapolis, a hub for socially responsible investment interest, has seen only a "small upsurge in inquiries," since the breakout of war, said Brad Lehrman, executive director.

Extending the scope to the full year, however, finds that the ranks of socially responsible investors have expanded from a year ago, he said.

The forum, a non-profit trade association that acts as a national clearinghouse for information on social investing, has 700 institutional and individual members, a 58 percent gain in a year that has included a recession and a war, events that normally dampen interest in stocks, he noted.

The forum produces, among other things, a directory of social investment services such as mutual funds that screen their stock purchases, and firms that provide social investment recommendations, Lehrman said.

Individual investors receive the directory, newsletters and other news for a subscription price of \$35 a year. Institutional subscriptions begin at \$135 a year. Details are available at:

Social Investment Forum, 430 First Ave. North, Suite 200, Minneapolis, Minn., 55401.

Jim Lawless cannot answer mail individually but he will answer selected investment questions in this column. Write to him at The Des Moines Register, P.O. Box 957, Des Moines, Ia., 50304. Readers are reminded that brokerages may have investments in the stocks they recommend.

Investing

PUTTING YOUR CASH WHERE YOUR CONSCIENCE IS

Back in the early 1900s church endowments refused to buy "sin" stocks—shares in tobacco, alcohol, and gambling companies. During the Vietnam era antiwar investors gave defense contractors the cold shoulder. In the early 1980s, to protest apartheid, universities and municipalities dumped their shares of companies that had operations in South Africa.

Now, in the 1990s, self-styled socially responsible investment is coming into its own. According to the Social Investment Forum, a trade association in Minneapolis, ethical investments in pension funds, mutual funds, and municipal and private portfolios total more than \$500 billion, up from \$40 billion in 1984. And many of the mutual funds designed to meet "ethical" criteria have been around long enough to establish a track record. Their performance shows that you don't have to sacrifice profitability by sticking to your principles (chart).

"As the baby boom generation has matured, we've realized that each of our investment decisions is an exercise in economic democracy," says Steven Scheuth, vice-president of the \$700 million Calvert Social Investment Fund in Bethesda, Md. A growing corps of brokers, financial planners, and portfolio managers are helping people exercise that right by evaluating investments for their social impact.

SCREEN TEST. Mutual funds are probably the easiest way to get into ethical investing. And although their holdings often overlap, each of the dozen or so funds defines "socially responsible" in a different way. For instance, the New Alternatives Fund specializes in nonnuclear energy compa-

norator Group Working Assets, a money-market fund, invests in commercial paper issued by companies with progressive labor practices (female and minority advancement, day care, or generous profit-sharing plans), such as Quaker Oats and Pitney Bowes, and in community development banks, such as the New York Job Authority.

Don't get the impression that socially responsible funds ignore the bottom line. Their managers screen for a company's financial health before all else. They offer the same range of investment objectives as conventional funds, from income to growth to speculative—and come in both load and no-load varieties.

In general, says Amy Domini of Loring, Wolcott & Coddige, a trust company in Boston, social equity funds outperform the market during bull runs and underperform when the bears grow. That's because mature giants such as GE and IBM are often underrepresented in portfolios, while smaller-capitalization stocks, such as Ben & Jerry's, get more weight. Result: greater volatility.

Nevertheless, some ethical

fund managers have shown impressive results within their constraints. Morningstar, which tracks mutual funds, gives the Pax World Fund an above-average ranking and a below-average risk. The no-load balanced fund eschews weapons makers and sin stocks. This year, by loading up on high-capitalization stocks such as Procter & Gamble and Walt Disney, the fund beat its group average. It also moved into gas utili-

ties—and, says fund President Luther Tyson, "we did it nice and early."

Socially responsible investing now totals over \$500 billion

ties—and, says fund President Luther Tyson, "we did it nice and early."

Of course, ethical investors can also lose when opportunity knocks. If you can't buy stock in oil multinationals because they operate in South Africa, you miss big gains when Saddam Hussein invades Kuwait. But social screens can work in an investor's favor, too. Calvert's Scheuth thought Borden

looked like a good buy about six months ago. Then he found that Borden used to own a chemical subsidiary and is a potentially responsible party in 34 Superfund cleanup sites. Borden says it doesn't face any big liabilities, but Scheuth felt the risk was too high.

The first step for investors new to the social fund field should be the Social Investment Forum. Its directory lists mutual funds and brokers. The forum won't make any recommendations, but it will acquaint you with your options. Say you're interested in establishing an ethical account at Merrill Lynch or Shearson Lehman Brothers. You will be given the names of brokers at those firms with expertise in social investing.

One new tool for ethical investors is the Domini Social Index, created by investment managers Kinder, Lydenberg, Domini in Boston. The index is made up of 400 common stocks of companies that pass multiple ethical screens. Like the S&P 500, the six-month-old DSI is weighted by market capitalization, and its industry distribution is similar.

CONVERTS. In a test that compared the hypothetical monthly returns of the DSI and the S&P 500 from January, 1986, to April, 1990, the social index's performance almost never diverged from the S&P by more than 1%. The DSI's total cumulative return was 80%—vs. 81% for the S&P.

Now, Kinder Lydenberg is launching a stock mutual fund based on the DSI and managed by Loring Wolcott's Amy Domini. If the index keeps performing the way it has, the fund could attract more converts to the social investment arena. "Business ethics," says Calvert's Scheuth, "is no longer an ox-

HOW 'ETHICAL' MUTUAL FUNDS HAVE BEHAVED

Fund	Type	Assets Millions	Total return* 3-year	1990
CALVERT GROUP				
▶ MANAGED GROWTH	BALANCED	\$242.4	10.94%	-0.83%
▶ BOND PORTFOLIO	CORP BONDS	23.3	9.94	6.63
▶ EQUITY PORTFOLIO	GROWTH	22.2	13.22	-8.22
BREYFUS THIRD CENTURY				
	GROWTH	158.4	15.00	0.00
PAX WORLD				
	BALANCED	105.9	15.96	8.19
PARNASSUS				
	GROWTH	19.7	5.41	-24.35
NEW ALTERNATIVES				
	NAT RESOURCES	14.9	15.44	-9.34
ALL-FUND AVERAGES*				

*You can be clean and green by
investing in ecology, peace and social
harmony and still...*

Finish First



BY PENELOPE WANG

BY THE TENS OF THOUSANDS, AMERICANS ARE REFUSING TO COMPROMISE their social and political principles in the quest for investment profits. As a result, so-called socially responsible investing—in other words, clean and green investing—is today's fastest-growing money-management style. The pros who invest in companies that, for example, seek to improve the environment or workers' welfare, and shun firms in the tobacco or nuclear-power industries, now manage \$625 billion, up from \$500 billion last year and a mere \$100 billion in 1985.

Moreover, converts to the clean and green trend are discovering that, contrary to what they have heard from Wall Street types in the past, they can invest for the common good and still beat the average common stocks. That old truism—that people who restrict their investment

choices with socially conscious criteria must resign themselves to giving up at least a percentage point or two of annual profits—ain't necessarily so. Consider the evidence:

■ Of the five ethical mutual funds in existence since 1986, four beat the average returns for their respective fund categories for the five years through 1990 by four to 13 percentage points. The clear winner: Pax World, which topped the average balanced fund, 71.1% to 57.4%, and was the only fund to get an A rating for risk-adjusted return in MONEY's rankings.

■ In 1990, when four out of five equity funds in MONEY's rankings posted losses, Pax World was up 10.5%. Two of the other six socially conscious stock funds made money as well: Dreyfus Third Century, up 3.6%, and Calvert Social Investment Managed Growth, up 1.8%.

■ And the Domini Social Index, a benchmark of 400 ethical stocks that was created in April 1990 by Kinder Lydenberg Domini, a leading socially conscious investment advisory firm in Cambridge, Mass., gained 19% for the 12 months to April 30, compared with 18% for the S&P 500.

It's little wonder the word is spreading that you don't have to sacrifice your principal to your principles—and that more small investors are welcoming the news. Take Barbara and Russ Widstrand, who own a photography studio in Los Angeles. After long donating money to environmental groups and recycling their trash, they decided to let their consciences guide their investments as well. "What's the use of donating money to save the whales when your IRA is invested in a company that is killing them?" asks Barbara, 34. So in late 1988, she and Russ, 32, began moving their \$40,000 portfolio to the Calvert Group of mutual funds, which invest only in companies that the funds' managers deem to be environmentally responsible. And the Widstrands have been rewarded. Since they made the switch, they have earned a solid 10.6% to 11.5% on their conservative bond and balanced funds. Moreover, the \$4,000 they put in Calvert's aggressive small-company Ariel Appreciation fund has gained 22% in 12 months. →



Check a fund's prospectus to be sure that the manager's goals match your own.

Never willing to pass up a profit-making opportunity, Wall Street is going green too. Today there are 17 socially conscious mutual funds and other ethical investment products—among them the top-performing Ecological unit investment trust—up from six in 1985. In addition, at least eight large brokerages, including Shearson Lehman, Prudential Securities and Smith Barney, now offer research or money-management services that are especially geared to socially responsible investors.

Such ethical investing also has spread far beyond the hard core of environmental and political activists. Prodded by demands from the public that they green their portfolios, pension funds now provide more than \$500 billion, or 80%, of the money invested according to some sort of socially conscious criteria. For example, TIAA-CREF, the teachers' retirement fund with assets of \$90 billion, is pressuring companies it owns to stop doing business in South Africa, as is the New York City pension system, with \$45 billion in assets.

Despite the growing evidence that socially conscious investing can be profitable, most professionals are still not convinced it will work over the long term—say, 20 years or more. These pros dismiss the ethical funds' one, or even five, years of solid performance as largely a fluke. "I don't believe that by restricting your investment universe you can increase your returns—that doesn't make sense," says Chris Niemczewski, president of Marshfield Associates, a money-management firm in Washington, D.C.

Adherents of socially conscious investing counter by noting that most practitioners use such broad criteria in picking stocks that some 70% of the 1,000 largest U.S. companies qualify. "Since typical small investors own at most 25 stocks," says Bruce Lehmann, an associate professor of economics and finance at Columbia University's business school, "limiting the universe to a modest extent won't have much impact on returns."

Most mainstream clean and green investors start by steering clear of alcohol and gambling stocks, as well as corporations that do business in South Africa, make armaments, produce nuclear power or pollute. Next, the investors subject the remaining stocks to standard financial tests to rule out poor performers and spot promising buys. Finally, they screen the survivors to identify the ones that meet more detailed social criteria.

The thinking behind this approach is that doing good pays off. "Socially responsible management is simply good management," says Patrick McVeigh, research director for Franklin Research & Development, a Boston ethical-investing firm. Companies that ignore the environment, say, risk becoming targets of liability suits. Those that follow insensitive personnel policies may have growing difficulty retaining first-rate workers. And firms that consciously contribute to the community can build good will with customers and increase sales.

"By looking at social criteria, we can spot healthy companies and screen out those with problems," says Eric McKissack, senior vice president at Ariel Capital, which manages the Calvert-Ariel Growth Fund. The approach has certainly paid off for the fund, which ranks in the top 10% of all small-company growth funds since its inception in November 1986, according to Lipper Analytical Services. Further, the firm's more recent fund, Calvert-Ariel Appreciation, is in the top 15% of all mutual funds for the 12-month period that ended March 31, according to CDA Technologies.

Keep in mind, however, that these funds, like all the ethical leaders, are managed according to broad criteria. Other clean-and-green-minded investors follow far stricter rules. For

example, some invest solely in companies with at least two women among their directors—a test passed by just 74 of the firms in the S&P 500. And others who favor stringent bans on animal testing avoid all drug companies and nearly all consumer-products companies. Such inflexibility makes diversification nearly impossible and thereby increases your risk.

There is yet another complication: even adherents who follow liberal criteria often disagree on a company's ethical rating. Consider the debate over Amoco, a \$28.5 billion natural gas producer and an industry leader in alternative energy research. The company's white turned black in 1978 after its tanker Amoco Cadiz spilled 68 million gallons of oil off Brittany. When Calvert fund managers asked investors whether Amoco was still an acceptable stock, it was overwhelmingly rejected. Nonetheless, many other money managers who consider socially conscious criteria continue to hold Amoco shares.

As with most investing, the clean and green approach requires careful analysis of a firm's finances as well as its record on social and environmental issues, using data collected from government agencies, private watchdog groups and the company itself. Because such research is too difficult for most individuals, small investors are probably best off sticking with solid, socially conscious mutual funds.

If you want to invest in individual stocks, you will probably need guidance from a money manager or newsletter that is in harmony with your social criteria. For a directory of such experts, send \$35 to the Social Investment Forum, 430 First Ave. North, Suite 290, Minneapolis, Minn. 55401.

Still, if the Green Spirit moves you, fear not. As long as you don't overdo a good thing, you can invest according to your canons of social responsibility and pick winning stocks and mutual funds. Says Timothy Smith, executive director of the Interfaith Center on Corporate Responsibility, which advises money managers for church and religious organizations: "If companies pay attention to the social bottom line, it will help them remain profit leaders." That could be true for small investors as well. ❊

AFFIRMATIVE

Building financial
portfolios that

INVESTING

reflect personal
values.

LIKE MANY WALL STREET PROFESSIONALS in the 1980s, Leslie Christian loved her job, was consumed by her work, and made lots of money. "It was an exciting time," recalls the 43-year-old Christian, formerly an investment banker with Salomon Brothers. But it also was an era that, despite the enormous financial rewards, proved bankrupt in many respects. By the end of the decade, a host of the Street's leading players were in jail or under indictment, and many of its foot soldiers were suffering from spiritual malaise. "After a while," Christian says, "I realized I wasn't bettering anybody except myself." So she quit her job, moved back to her native Washington state, and two years later started working in financial planning for small businesses and doing volunteer work for women's groups and nonprofit organizations. As an investment banker, Christian had never given much thought to where she invested her money. "I had a one-track mind, and that track was work," she says. But as she reordered her career priorities, she also, for the first time, re-examined the implications of her investment choices. "I recognized that

BY

JORDAN E. COHN

ILLUSTRATION BY
FRED L. BIRCHMAN

my money was supporting companies that I didn't believe in."

Today, Christian has found a way to put her money where her values are. Her portfolio consists of several holdings in what have come to be known as socially responsible mutual funds, such as the Calvert Social Equity fund and the Calvert Social Investment Managed Growth fund.

ONCE A SPECK in the investing universe, socially screened investing has recently grown "from a movement to an industry," says Carsten Henningsen, president of Progressive Securities Financial Services Corporation, a Portland, Oregon, investment advisory firm specializing in social investing. Today, there is more than \$500 billion in investments subject to social screening, a quantum leap from \$40 billion in 1984, according to Brad Lehrman, executive director of the Social Investment Forum, the trade association for socially responsible investing.

The impetus for this growth has been the widespread revulsion, among individual and institutional investors, against investing in companies [CONTINUED ON PAGE 33]

that do business in South Africa. For Howard Shapiro, a marketing and management consultant in Portland, South Africa was the "smoking gun" that converted him and his wife to socially conscious investing. "We were so strongly opposed to apartheid that it became the watershed issue for our future investing. But the Shapiros also feel strongly about a range of other concerns. We're interested in companies that treat women equally, don't pollute and generally are good to their employees."

If South Africa was *the* social-consciousness issue of the 1970s and 80s, concern for the environment is the theme for the 1990s. Spurred by the Exxon oil tanker spill in 1989, there has been an explosion of investor interest in another kind of "green" companies and mutual funds involved in saving the planet. Beyond South Africa and the environment, the social screens that are applied to companies touch on many of the other pressing political issues of the 1990s: nuclear power, defense spending, product safety, the situation in Northern Ireland and equal employment.

But to some critics, avoiding companies that do business in South Africa, that pollute, or that have contracts with the military is like throwing money away. Restricting investment choices, the argument goes, restricts investment return. Shapiro responds, "If I lose a little financially, I make up for it in the good feeling I have in my investments."

For investors who want to match their principles to their portfolios, numerous investment vehicles are now available. About 20 mutual funds now employ social criteria in selecting stocks and bonds. Additionally, several funds related to environmental concerns have sprung up.

For income-oriented investors, there are socially conscious money market funds that invest in certificates of deposit, government securities and commercial paper. Also, by working with brokerage firms that specialize in social investing, an individual can customize a portfolio and select stocks and bonds that are consistent with his or her political and social precepts. Finally, investors who want a more direct path of influence may opt for community-loan funds, or deposit their money in socially responsible banks.

SOcially conscious investing was born in the 1920s when church groups shunned the so-called sin stocks—companies that had connections to gambling, alcohol or cigarettes. The Pioneer Fund (now a family of

nine funds) was started in 1928 to meet these religious objections. But socially conscious investing didn't come of age until the 1970s, spurred by a confluence of consciousness-raising forces: the Vietnam War, the women's movement, the civil rights movement, growing awareness of the environment.

In 1970, the first modern ethical fund, Pax World Fund, was organized in response to the Vietnam War. The fund devised a "peace portfolio" that avoided weapons manufacturers and defense-related companies. Two years later, the Dreyfus Third Century Fund was started, which emphasized companies with stellar equal-employment, environmental, job safety and product safety records. Today, the fund also avoids firms doing business in South Africa. It was the anti-apartheid movement in the early 1980s that put ethical investing on the map and into the investment mainstream.

Most investors who take the plunge in socially conscious investing buy shares in one of the mutual funds. In doing so, it is important to obtain a prospectus (see sidebar for phone numbers and addresses) that describes the fund's investment philosophy. Consider, for example, the Working Assets Money Fund of San Francisco, the largest money market fund involved in socially conscious investing, whose long list of social criteria is representative of many of the funds. Typical of these type of funds, Working Assets employs a "negative" approach—avoiding companies that conflict with its philosophy—but also invests in companies that "do good."

For example, Working Assets adheres to a strict policy of eschewing companies that do business with South Africa or in any way help to finance the country. Its "peace criteria" rule out the 100 largest defense contractors, eliminate companies involved in Star Wars Research and Development and cast aside companies that do significant manufacturing or development of weapons. In the labor area, it doesn't invest in union-busting concerns or those that discriminate on the basis of age, race, religion, disability or sexual orientation. Environmentally, the Fund refuses to invest in companies that repeatedly violate the regulations of the Environmental Protection Agency.

On the positive side, Working Assets favors: construction projects that are 100 percent union-built and companies that maintain good relations with unions, firms that are strong on affirmative action and charitable giving; and job-creating organizations, such as the New York

State Job Developmental Authority.

Screening companies for their adherence to social and political standards, however, is more art than science. "It's hard to find the perfect company that meets all of your requirements," says C. Keith Wentworth, a Seattle-based certified financial planner who specializes in socially conscious investing and is a member of the Social Investment Forum.

For example, Johnson and Johnson, the consumer-products and pharmaceutical giant, has long been an attractive stock for social investors because of its corporate code of ethics, known as the Credo. But the company is also one of the United States' largest employers in South Africa.

Then there are what Wentworth calls the "gray areas." While it's easy to determine whether a company has ties to South Africa or large defense contracts, it may be more difficult to discern, for instance, just how well a company treats its employees. Eventually, the decision is often subjective. "Sometimes it's almost a matter of, 'You know when you see it,'" says Jerome Dodson, portfolio manager of the Parnassus Fund, an ethical fund in San Francisco.

Still, decisions are made, lines are drawn and the field of potential investments circumscribed—a narrowing, according to critics, that reduces the possible returns. "Any time you limit the universe of stocks, you run the risk of underperforming," says Sheldon Jacobs, editor of *The No-Load Fund Investor*, newsletter in Hastings-on-Hudson, New York.

The oft-expressed counterargument articulated by Henningsen of Progressive Securities, is that "the social bottom line and the financial bottom line do not operate independently. Clean companies, goes this line of thinking—that is, companies that aren't subject to prolonged labor strikes or costly environmental litigation—will perform better in the long run than socially irresponsible concerns."

If there is a trade-off between principles and profits, some investors don't seem to mind. "If the decision to invest in social funds was a matter of choosing a 5 percent return in the ethical fund versus 15 percent in the market, it would be difficult," Chnstuan says. But it's not easy to make a blanket statement about the performance of ethical funds and the stocks of socially conscious companies, their results are very much a mixed bag. Some have significantly outperformed the market (using the performance of the Standard & Poor's 500 as a measure of the market); others underperformed by a

lated funds, including the Fidelity Select Environment, Kemper Environmental Services and John Hancock's Freedom Environmental Fund

But this proliferation of funds brought confusion for the average investor. According to James Nixon, an executive with Progressive Asset Management, an Oakland brokerage firm specializing in socially and environmentally responsible investing, "Some of these funds promoted themselves as pro-environment, when in fact, they held stocks of companies that had a long history of EPA violations." In the case of the Freedom Environmental Fund, for example, the fund invested in Waste Management, Inc. and Browning Ferns, firms with disgraceful environmental records.

INVESTORS IN THE environment have three choices:

§ Stocks and mutual funds that are in the environmental sector—landfill concerns, pollution-control companies and waste-management firms—but do not necessarily have a clean record on the environment.

§ Socially conscious funds that screen companies environmentally, but may be only peripherally invested in companies in the "green" business (which incorporates most of the socially conscious funds).

§ Mutual funds that have holdings in companies that are both environmentally related and environmentally sensitive. This last category comprises the New Alternatives Fund, the Schield Progressive Environmental Fund (which was the best performing mutual fund in the second quarter of 1990) and the Ecological Trust.

The world of socially conscious investing, however, ranges beyond such traditional Wall Street vehicles as mutual funds, money market funds, stocks and bonds. For example, investors can deposit their money in socially responsible banks such as the South Shore Bank of Chicago, which, since 1973, has helped revive five decaying neighborhoods on Chicago's south side and west side by making more than \$140 million in development loans—loans that in many cases other banks wouldn't make. "Everybody has a bank account," says Joan Shapiro, the bank's senior vice president. "It's the easiest place to start as an ethical investor."

Then there are the community loan funds, in which investors who are willing to accept below-market rates of return can put their money in community projects that aid low-income housing and

small-business ventures. "Rather than get 5 percent in a money market fund, why not invest in a community loan fund, where you can drive by a building and say, 'That's where my money is,'" says Amy Domini, author of *Ethical Investing*.

Socially conscious investors assuage their consciences, but whether they'll change the world is another question. Managers of the ethical funds readily admit that their decisions on whether to buy or sell particular stocks have little impact on corporate policies. The principal reason: size. Typically, a fund's holdings are often minuscule in relation to the outstanding shares. But the funds, through their representation at stockholders' meetings, "help put social issues on the corporate agenda," Parnassus's Dodson contends.

But the real impact, according to David Vogel, a professor of business and public policy at the Haas School of Business at the University of California at Berkeley, "is not on the companies, but on the people who invest." Allowing investors to reconcile their beliefs and investments means that "they feel better," Vogel says. "And making consumers happy is what a market economy is all about. That's capitalism at its best." ▲

Jordan E. Cohn is a Marina Del Rey, California, freelance writer.

WHERE TO LOOK FOR ADVICE

This listing of socially conscious funds includes the amount of the minimum initial investment and the phone number. For a full description of a fund's social and financial criteria, call and request a prospectus.

1. Parnassus Fund (800-999-3505)
Minimum initial investment: \$2,000
2. Working Assets Money Market Fund (800-533-3863)
Minimum initial investment: \$1,000
3. Pax World (800-767-1729)
Minimum initial investment: \$250
4. Dreyfus Third Century (800-645-6561)
Minimum initial investment: \$2,500
5. Progressive Environmental (800-527-8627)
Minimum initial investment: \$1,000
6. New Alternatives Fund (516-466-0808)
Minimum initial investment: \$2,650

7. Calvert group (family of funds) (800-368-2748)

*Minimum initial investment for Calvert Ariel Growth and Calvert Ariel Appreciation \$2,000 (closed to new investors at 200,000)
Minimum investment for Calvert Social Investment Equity Social Investment Bond Social Investment Managed Growth, and Social Investment Money Market \$1,000*

8. The Domini Social Index Trust (800-762-6814)

Minimum initial investment \$1,000

INFORMATION SOURCES

1. The Social Investment Forum (612-333-8338), 430 First Avenue North #290, Minneapolis, Minnesota 55401
The trade association for social investing. The group publishes a membership directory and a newsletter sponsors quarterly meetings and series as an information clearinghouse. Annual membership is \$35 for individuals.
2. *Insight: The Advisory Newsletter for Concerned Investors*, Franklin Research Develop Corp (617-423-6655), 711 Atlantic Avenue Boston, Massachusetts 02111
A monthly newsletter that contains profiles of socially responsive companies, features, and in-depth reports on specific industries.
3. *Good Money* (800-535-3551), Box 363, Worcester, Vermont 05682
A bimonthly newsletter on ethical investing. Subscription price is \$75.
4. Data Center (415-835-4692), 464 19th Street, Oakland, California 95612
Library with extensive collection of information on companies from the socially conscious perspective.
5. Interfaith Center for Corporate Responsibility (212-870-2295), 475 Riverside Drive, Room 566, New York, New York 10115
Publishes \$35-a-year newsletter that focuses on shareholder activism and corporate activities as they relate to social issues.
6. *Shopping for a Better World*, Council on Economic Priorities (212-420-1133), 30 Irving Place, New York, New York 10003.
Price \$4.95. Guide rates more than 1,300 products, using social screens.

large measure. Some have kept pace with the S&P, while others have barely lagged behind.

A five-year study by Kinder, Lydenberg, Domini & Co. Inc. (ending September 30, 1990) of 400 major companies screened for their social criteria showed that the group kept pace with the S&P over the same time period. In the same vein, for the five-year period ending December 31, 1989, a \$2.8 billion socially responsive portfolio (with dividends reinvested and with no deduction for advisory fees) managed by Scudder, Stevens & Clark in San Francisco had a compounded annual return of 21.1 percent versus 20.4 percent for the S&P. And the Calvert Social Investors Growth fund returned 74.29 percent compared to 67.06 percent among balanced funds for the five years ending September 30, 1990.

But the Parnassus Fund has returned only a meager 27.22 percent, compared with 67.73 percent for other growth mutual funds in the five years ending September 30, 1990. Similarly, Dreyfus Third Century Fund has gained 133.70 percent

over the past 10 years (ending September 30, 1990), a performance that pales against the 202.23 percent average recorded by growth funds over the same period. And a study at the University of Akron of 10 social funds for the five years ending in 1988 found that the performance of the ethical funds annually trailed their competition by a percentage point a year.

Part of the difficulty in analyzing the performance of the social funds is that they haven't been around very long. Only two of the ethical funds—Pax World and Dreyfus Third Century (the Pioneer funds are excluded since their social criteria are so limited)—have track records of more than 10 years. Says Parnassus Fund's Dodson, "You need at least three market cycles, or 10 years, before you can fairly assess the performance of a fund." The record of Parnassus bears him out. While the fund's five-year numbers are poor, it returned an exceptional 42 percent in 1988, leading all growth funds. "The jury is still out," concludes Henningsen. "We need many more years before we can

say anything definitive about the funds' performance."

JEANNIE TAYLOR, a Seattle mother of two, has long been interested in conservation, alternative energy and environmental issues. But she only recently found a vehicle for her interests. In the early '70s, she inherited money from her grandmother, which was invested by the trust department of a local bank. Taylor, however, was not entirely comfortable with the arrangement. "The bank's major concern was safety of principal, social issues were simply not on their agenda." For example, the bank suggested she buy Washington Public Power Supply System (WPPSS) bonds. But she wanted no part of nuclear power—a prescient decision—the utility later defaulted on the bonds. Eventually, she was contacted by Henningsen, and today her portfolio includes holdings in several socially conscious funds, such as the New Alternatives Fund, which invests in alternative energy, resource recovery and conservation companies.

But mainstream Wall Street didn't jump on the environmental bandwagon until 1989, after the Exxon oil tanker spill. Merrill Lynch formed an environmental technology trust, whose popularity spawned a slew of environmentally re-

GOING GREEN

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BARRON'S

April 22, 1991

FYI

Ethics and the Bottom Line

What would it cost to put your ethics where your portfolio is? Does adding social criteria to your stock selection process hurt performance?

Not according to the Social Investment Forum, a trade association of investment professionals and individuals. Citing *Barron's* Lipper Gauge, the Forum points out that the four socially responsible equity mutual funds that have been operating since 1984 actually out-performed the five-year average for all equity funds by nearly 6%. This indicates that they also out-performed the S&P 500 by about 11%, disregarding dividends.

Brad Lehman, Executive Director of the Forum, estimates that there is more than \$500 billion invested according to formal social criteria, up from about \$50 billion five years ago.

The Forum acts as a clearinghouse for its members and has been the catalyst behind the Valdez Principles. Modeled on the Sullivan (South Africa) and McBride (Northern Ireland) Principles, these are ten environmental commitments being urged on corporations by the Coalition for Environmentally Responsible Economics (CERES). A key part of Valdez is the annual environmental self-audit required of companies that sign the Principles. These reports are reviewed and summarized by CERES and disseminated to its membership.

FOR MORE INFORMATION:

Social Investment Forum

**SOCIAL
INVESTMENT
FORUM**

430 First Avenue North, Suite 290
Minneapolis, Minnesota 55401
(612) 333-8338

SOCIALLY RESPONSIBLE MUTUAL FUND PERFORMANCE

Percentage Appreciation of Total Reinvested Monies

<u>Assets</u> (\$mil)	<u>Fund Name</u>	<u>Individual Fund 1 year ending 6/30/92</u>	<u>Average Performance of Group 1 year ending 6/30/92</u>	<u>Individual Fund 5 years ending 6/30/92</u>	<u>Average Performance of Group 5 years ending 6/30/92</u>
255	Ariel Growth (closed to new sales)	10.07%	14.05% (94 small co growth funds)	81.77%	49.25%
130	Ariel Appreciation	7.31	14.05 (94 small co growth funds)	--	49.25
44	Calvert Social Bond	13.29	14.57 (633 fixed funds)	--	53.81
59	Calvert Social Equity	4.46	11.99 (271 growth funds)	--	48.16
387	Calvert Social Managed Growth	9.01	13.42 (72 balanced funds)	42.50	54.46
6	Domini Social Index Trust	12.21	12.93 (228 growth & income funds)	--	49.52
444	Dreyfus Third Century	5.78	11.99 (271 growth funds)	57.22	48.16
9	Muir California Tax Free Fund	11.84	11.29 (66 CA municipal funds)	--	51.43
24	New Alternatives	2.29	0.88 (23 natural resources funds)	43.20	13.20
39	Parnassus	21.82	11.99 (271 growth funds)	34.95	48.16
369	Pax World	6.93	13.42 (72 balanced funds)	61.59	54.46
6	Righttime Social Awareness	4.49	14.74 (21 specialty funds)	--	43.34
3	Schild: Progressive Environmental	-17.19	-9.09 (6 environmental funds)	--	--
	Average All Mutual Funds (2990 total)		12.89		47.50

Information provided by the Social Investment Forum
Source: Barron's
July 27, 1992

Fiscal Year 1992

**Investment Results
Compared to Fund Objectives**

Basic Retirement Funds

Post Retirement Fund

BASIC RETIREMENT FUNDS

OBJECTIVE # 1:

Provide Real Return

Provide real rates of return that are 3-5 percentage points greater than the rate of inflation over moving 10 year periods.

OBJECTIVE #2:

Exceed Median Fund

Outperform the median fund from a universe of public and private funds with a balanced asset mix, excluding alternative assets over moving 5 year periods.

OBJECTIVE #3:

Exceed Composite Market Index

Outperform a composite index weighted in a manner that reflects the long term asset allocation of the Basic Funds over moving 5 year periods.

BASIC RETIREMENT FUNDS

Total Fund

vs.

Inflation

PERCENT

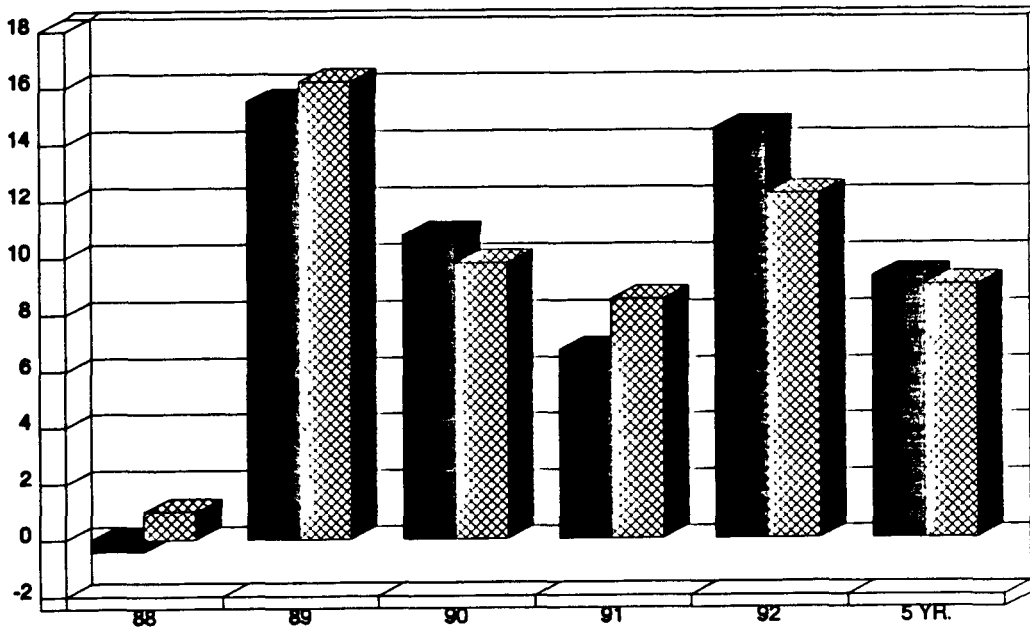


	1 Yr. FY 92	5 Yrs. FY 88-92 Annualized	10 Yrs. FY 83-92 Annualized
Basic Funds	14.5%	9.3%	14.3%
Inflation (CPI)	3.1	4.3	3.8
Real Return	11.4	5.0	10.5

BASIC RETIREMENT FUNDS

**Total Fund
vs.
Composite Index**

PERCENT



BASIC FUNDS



COMPOSITE INDEX

	Fiscal Year					Annualized
	1988	1989	1990	1991	1992	5 Yr.
Basic Funds	-0.4%	15.5%	10.8%	6.7%	14.5%	9.3%
Composite	1.0	16.2	9.8	8.5	12.2	9.0

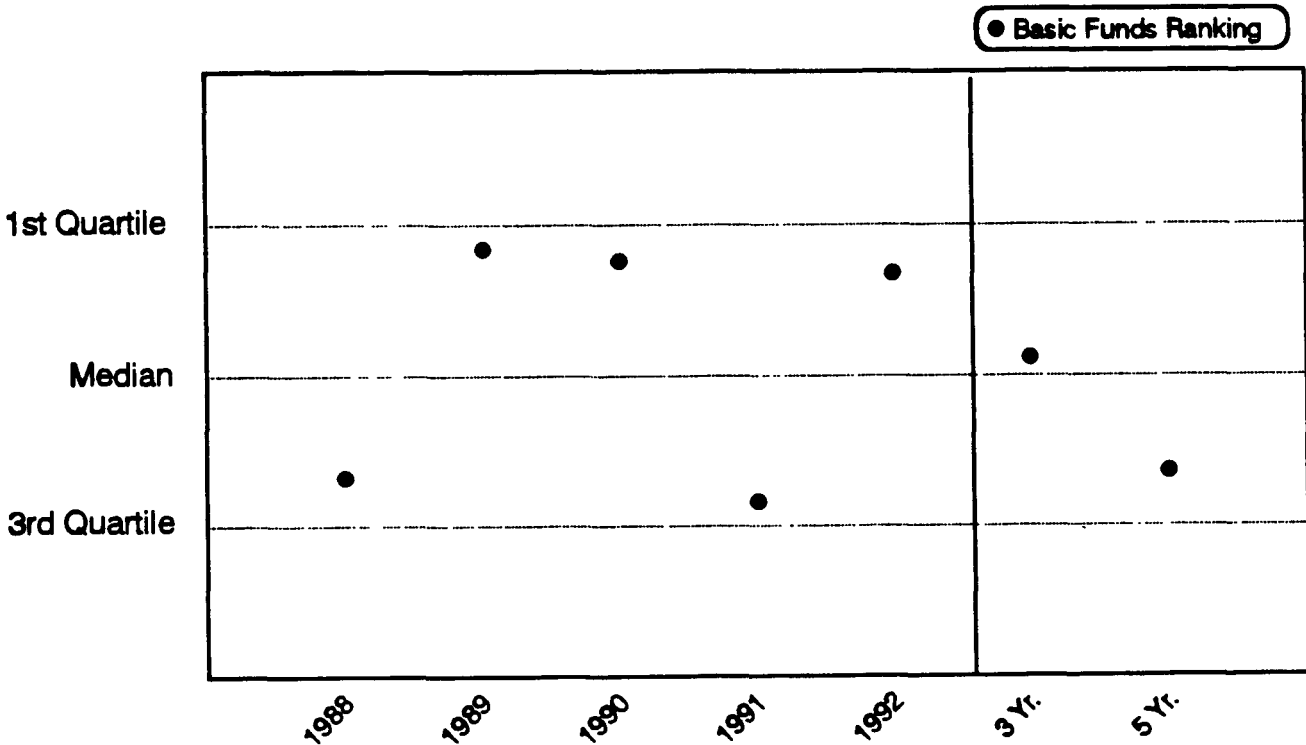
Composite Index as of 6/30/92:

60.0%	Wilshire 5000 Index
24.0	Salomon BIG Index
10.0	Wilshire Real Estate Index
2.5	Venture Capital Funds
2.5	Resource Funds
1.0	91 Day T-Bills

100.0%

BASIC RETIREMENT FUNDS

Total Fund
vs.
Public and Private Funds



	Fiscal Year					Annualized	
	1988	1989	1990	1991	1992	3 Yr.	5 Yr.
Basic Funds*	-0.8%	15.9%	11.9%	6.8%	14.6%	11.0%	9.5%
TUCS Balanced Funds**							
1st Quartile	4.3	16.4	13.2	10.3	15.7	12.2	10.8
Median	1.1	14.3	10.0	8.6	13.4	11.0	10.0
3rd Quartile	-1.7	12.4	7.9	6.5	11.4	10.0	9.1

* Basic Funds returns without alternative investments

** Trust Universe Comparison Service (TUCS) contains returns from more than 800 public and private pension funds

Source: Trust Universe Comparison Service

POST RETIREMENT FUND

OBJECTIVE #1:

Maintain Current Benefits

Generate 5% realized earnings each year to maintain current benefits.

OBJECTIVE #2:

Provide Benefit Increases

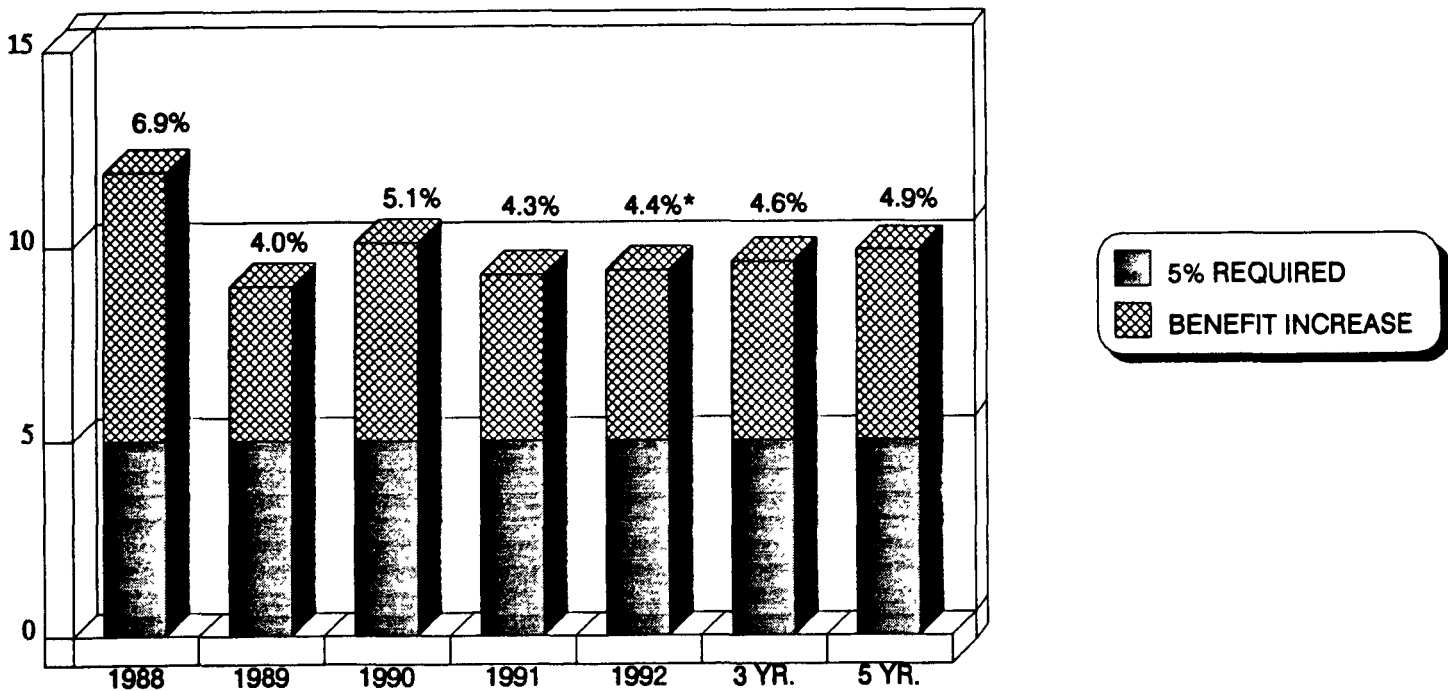
Generate at least 3% additional realized earnings to provide benefit increases.

POST RETIREMENT FUND

Realized Earnings

FY 1988 - FY 1992

PERCENT



	Fiscal Year					Annualized	
	1988	1989	1990	1991	1992	3 Yr.	5 Yr.
Earnings	11.9%	9.0%	10.0%	9.3	9.4%***	9.6%	9.9%
Benefit Increase**	6.9	4.0	5.1	4.3	4.4*	4.6	4.9
Inflation	3.9	5.2	4.7	4.7	3.1	4.2	4.3

* Estimate. Actual increase will not be calculated until actuarial data is received in late calendar year 1991.

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

*** Estimate. Full effect of amortization unavailable at this time.