

SPECIAL MEETING
MINNESOTA STATE BOARD
OF INVESTMENT
May 23, 1984

AGENDA

SPECIAL MEETING

STATE BOARD OF INVESTMENT

Wednesday, May 23, 1984

9:00 A.M.

Room 112

State Capitol
Saint Paul

1. Selection of Bond Managers.

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



EXECUTIVE DIRECTOR
HOWARD J. BICKER

STATE OF MINNESOTA
STATE BOARD OF INVESTMENT

Room 105, MEA Building
55 Sherburne Avenue
Saint Paul 55155
296-3328

May 8, 1984

TO: Members, State Board of Investment
Governor Rudy Perpich
State Auditor Arne H. Carlson
State Treasurer Robert W. Mattson
Secretary of State Joan Anderson Growe
Attorney General Hubert H. Humphrey III

FROM: Clifford McCann, Chairman *Clm*

SUBJECT: Bond Manager Search Committee Report.

The Minnesota State Board of Investment formed a search committee with charge of recommending a list of potential external bond managers for the Basic Retirement Funds. The committee is comprised of the Executive Directors of the three state-wide retirement plans and one person appointed by each Board member (list attached).

Based on the SBI-approved bond manager guidelines (attached) Evaluation Associates (EAI), the SBI's consultant, provided the committee with a list of potential bond managers. The committee reviewed the list and made some additions and deletions. Each potential manager was then interviewed by members of the committee. At the completion of the interviews, performance data, interview notes, and portfolio statistics on each manager were provided to the committee members (attached).

The committee met on May 3 (minutes attached) and recommends the following for Board consideration to implement the long term asset allocation for the Basic Retirement Fund of a 25% bond commitment (approximately \$800 million):

1. Retain the following six organizations to actively manage bond portfolios within the guidelines established by the SBI.

Investment Advisers - Mpls.	\$ 25 MM	
Lehman Management - New York	150 MM	
Miller, Anderson & Sherrerd - Phil.	150 MM	
Morgan Stanley - New York	150 MM	
Norwest - Mpls.	75 MM	
Western Asset - L.A.	150 MM	
External Bond Portfolio		\$700 MM

2. Maintain the private placement portfolio managed internally and use the cash flow, maturities, and sale proceeds to fund current or new managers.

Internal Bond Portfolio	\$100 MM
Total Bond Portfolio	<u>\$800 MM</u>

3. Fees for external managers shall be 20 basis points or less.
4. Maintain a shorter term (3 years or less in maturity) portfolio managed internally as a source of funds for additional alternative investments (Real Estate, Resource Funds, Venture Capital, etc.).

Attachments

MEMBERS, BOND MANAGER SELECTION COMMITTEE

Mr. Gordon M. Donhowe	Appointed by Governor Rudy Perpich
Mr. George Appleby	Appointed by State Treasurer Robert W. Mattson
Ms. Judith W. Mares	Appointed by Secretary of State Joan Anderson Growe
Mr. Clifford McCann, Chair	Appointed by State Auditor Arne H. Carlson
Mr. Mike Miles	Appointed by Attorney General Hubert H. Humphrey III
Mr. Paul L. Groschen	Executive Director Minnesota State Retirement System
Mr. C. Mike McLaren	Executive Director Public Employees Retirement Association
Mr. Harvey Schmidt	Executive Director Teachers Retirement Association

PROPOSED BOND MANAGERS FOR THE BASIC RETIREMENT FUNDS

GOALS:

- Provide a deflationary hedge for the Basic Funds' total portfolio.
- Provide a dampening effect on the Basic Funds' total portfolio variability of returns.
- Provide performance superior to a broad bond market index (i.e., Merrill Lynch Master Bond Index or Lehman Brothers Kuhn Loeb Government/Corporate Bond Index).

INVESTMENT GUIDELINES:

- Invest in high quality bonds as required by Minnesota Statutes (copy attached).
- Maintain portfolio duration within a 3 to 7 year band.

11A.24 AUTHORIZED INVESTMENTS.

Subdivision 1. **SECURITIES GENERALLY.** The state board shall have the authority to purchase, sell, lend or exchange the following securities for funds or accounts specifically made subject to this section including ~~the writing of~~ covered puts and call options

Subd. 2. **Government obligations.** The state board may invest funds in governmental bonds, notes, bills, mortgages and other fixed obligations, including guaranteed or insured issues of (a) the United States, its agencies or its instrumentalities, including financial contracts traded upon a contract market designated and regulated by a federal agency; (b) Canada and its provinces, provided the principal and interest is payable in United States dollars; (c) the states and their municipalities, political subdivisions, agencies or instrumentalities, where backed by the state's full faith and credit or if the issuer has not been in default in payments of principal or interest within the past ten years or in the case of revenue bonds the obligor has been completely self-supporting for the five prior years; (d) the International Bank for Reconstruction and Development, the Inter-American Development Bank, the Asian Development Bank, or any other United States Government sponsored organization of which the United States is a member, provided the principal and interest is payable in United States dollars and the issues are rated in the highest quality category by a nationally recognized rating agency.

Subd. 3. **Corporate obligations.** The state board may invest funds in bonds, notes, debentures, transportation equipment obligations, or any other longer term evidences of indebtedness issued or guaranteed by a corporation organized under the laws of the United States or any state thereof, or the Dominion of Canada or any province thereof if they conform to the following provisions

(a) The principal and interest of obligations of corporations incorporated or organized under the laws of the Dominion of Canada or any province thereof shall be payable in United States dollars;

(b) The consolidated net pretax earnings of corporations other than finance corporations shall have been on average for the preceding five years at least 1.5 times the annual interest charges on total funded debt applicable to that period.

(c) The consolidated net pretax earnings of banks and finance corporations shall have been on average for the preceding five years at least 1.2 times the annual interest charges on total funded debt applicable to that period.

(d) Obligations shall be rated among the top four quality categories by a nationally recognized rating agency or if unrated, then the corporation shall have other comparably secured issues similarly rated or the consolidated net pretax earnings of the corporation shall have been on average for the preceding five fiscal years at least twice the ratios required in clauses (b) and (c)

Subd. 4. **Other obligations.** The state board may invest funds in bankers acceptances, certificates of deposit, commercial paper, mortgage participation certificates and pools, repurchase agreements and reverse repurchase agreements and savings accounts if they conform to the following provisions

(a) Bankers acceptances of United States banks shall be limited to those eligible for purchase by the Federal Reserve System.

(b) Certificates of deposit shall be limited to those issued by banks and savings institutions that meet the collateral requirements established in section 9.031, unless sufficient volume is unavailable at competitive interest rates. In that event, noncollateralized certificates of deposit may be purchased from United States banks and savings institutions that are rated in the highest quality category by a nationally recognized rating agency.

(c) Commercial paper shall be limited to those issued by United States corporations or their Canadian subsidiaries, shall be of the highest quality and mature in 270 days or less;

(d) Mortgage participation or pass through certificates evidencing interests in pools of first mortgages or trust deeds on improved real estate located in the United States where the loan to value ratio for each loan as calculated in accordance with section 61A.28, subdivision 3 does not exceed 80 percent for fully amortizable residential properties and in all other respects meets the requirements of section 61A.28, subdivision 3. In addition the state board may purchase from the Minnesota housing finance agency all or any part of any pool of residential mortgages, not in default, which has previously been financed by the issuance of bonds or notes of the agency. The state board may also enter into a commitment with the agency, at the time of any issue of bonds or notes, to purchase at a specified future date, not exceeding twelve years from the date of the issue, the amount of mortgage loans then outstanding and not in default, which have been made or purchased from the proceeds of the bonds or notes. The state board may charge reasonable fees for any such commitment, and may agree to purchase the mortgage loans at a price such that the yield thereon to the state board will, in its judgment, be comparable to that available on similar mortgage loans at the date of the bonds or notes. The state board may also enter into agreements with the agency for the investment of any portion of the funds of the agency for such period, with such withdrawal privileges, and at such guaranteed rate of return, if any, as may be agreed between the state board and the agency.

(e) Repurchase agreements and reverse repurchase agreements shall be limited to the securities described in subdivision 2, clause (a);

(f) Savings accounts shall be limited to those fully insured by the Federal Deposit Insurance Corporation or the Federal Savings and Loan Insurance Corporation.

MEMBERS OF THE BOARD:
GOVERNOR RUDY PERPICH
STATE AUDITOR ARNE H. CARLSON
STATE TREASURER ROBERT W. MATTSON
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MINUTES
STATE BOARD OF INVESTMENT

BOND MANAGER SEARCH COMMITTEE

MAY 3, 1984

The Bond Managers Search Committee met on May 3, 1984 at 1:00 P.M. in the SBI Conference Room. Committee members Cliff McCann, Chair; George Appleby, Paul Groschen, Judith Mares, Mike Miles, Mike McLaren, and Harvey Schmidt were present. Howard Bicker, Jeff Bailey, Andrea Kircher, Robert Mattson, Teresa Myers and Jim Ryan were also present.

At the request of the Chair, Mr. Bicker reviewed the bond manager selection process. Jim Ryan, Evaluation Associates, outlined some of the criteria for manager selection, including the capacity to invest a significant amount of the Board's assets, a diversity of styles, and stability for the overall portfolio. In response to a question from Ms. Mares regarding the decision to use external managers for the fixed income portfolio, Mr. Bicker stated that the Board is looking for a diversity of styles and additional capabilities to enhance the State's fixed income management.

Mr. Ryan reviewed the merits of each of the thirteen managers under consideration. In his opinion, the best managers for the SBI portfolio were Lehman, Morgan Stanley and Miller Anderson, followed by Rosenburg, Western Asset and T. Rowe Price. Mr. Ryan discussed the recent ownership changes at Lehman. He stated that the investment staff has a vastly improved compensation package. Each investment professional has signed a four year noncompetitive contract, and the Shearson/American Express Chairman has sent a letter stating he has no intentions of changing the manager at Lehman Asset Management. In total this change is viewed as a positive development. In response to a question from Mr. Schmidt, Mr. Bicker stated that the combination of Miller Anderson, Lehman and Morgan would provide a good diversification of styles. He did not concur with Mr. Ryan on T. Rowe Price. Mr. Bicker expressed concern about the size of

assets recently added to PIMCO and their recent problem in the futures market.

Mr. Ryan reviewed the local managers, stating that as a group they were more traditional in style, reflecting their experience as managers for balanced accounts. He stated the national managers had more focused investment styles.

Mr. Bailey reviewed the characteristics of the managers based on quantitative data. He stated that Morgan Stanley, Rosenberg, and Miller clearly evidenced distinct management styles as illustrated by the data. Mr. Bailey noted that Rosenberg's fees were considerably higher than other managers under consideration. In response to a question from Mr. McLaren, Mr. Ryan stated that of the two, Lehman was a preferred choice over Western for the SBI portfolio. He stated that all the managers under consideration were good and any could be hired without embarrassment to the Board. Mr. McLaren stated that he concurred that it is a good list, with the exception of the local managers, stating he was not convinced about the local managers. Mr. Ryan noted that the local organizations had a smaller pool of capital under management.

Mr. McLaren moved to eliminate Discount Corporation, Wentworth, T. Rowe Price and Loomis Sayles from further consideration. Mr. Appleby moved to amend the motion to include PIMCO. Mr. McLaren stated that Mr. Ennis supported PIMCO, but he concurred with Mr. Bicker's concern about the recent large infusion of assets under management. Mr. Appleby's motion passed unanimously. Mr. McLaren's motion passed unanimously.

Ms. Mares distinguished between investment and business risks, stating that some firms that would fit on the investment side may attach a business risk, such as reorganization, personnel changes, or growth in assets. Mr. McLaren stated that the classification of managers is the most uncertain part of the process. Ms. Mares suggested that Lehman be allocated a smaller amount of money due to concern about personnel changes.

Mr. McLaren moved approval of Miller Anderson and Morgan Stanley. Mr. Ryan noted rumors of an impending sale of Morgan, stating business risk exists with every company. He also stated that the assets were very liquid and could be withdrawn by the Board at any time. Mr. McLaren's motion passed unanimously.

Ms. Mares recommended that Lehman and Western be considered as a package, considering, that both had potential business risks. Mr. Bicker stated concern that the Board could end up with too many managers.

In response to a question from Mr. Miles, Mr. Appleby stated that he considers four managers at \$200 million each an optimal number resulting in less custodial costs, staff bookkeeping and

monitoring duties. Mr. Bailey noted that the downside risk is not very high for the bond portfolio, and it is relatively easy to move the money if the Board does not concur with the developments at any organization.

Ms. Mares stated that she was not impressed with Rosenberg's economic forecasts. Mr. Ryan stated that Rosenberg had a good track record, and Mr. Bailey stated that its correlation was low with the other managers. Ms. Mares said that Rosenberg was a mediocre manager. Mr. Ryan stated that Rosenberg was a somewhat traditional manager, but has had good results and could fit the Board's portfolio in adding to the diversity of managers.

Mr. Mattson stated that number of managers should not be of great concern. Mr. Bailey stated that each additional manager results in higher custodial and trading costs and more time for monitoring. Mr. Bicker stated that four to six managers was an optional number. Mr. Mattson stated that the number of managers was not an overriding concern to the Board.

Mr. Groschen moved approval of Lehman. The motion passed on a 6-1 vote, with Ms. Mares voting in the negative. In response to a question from Mr. McLaren, Mr. Ryan stated that the decision between Western and Rosenberg depended on whether the Board wanted a manager that would function within a narrow range (Western) or a more traditional manager (Rosenberg). Ms. Mares stated that if the Board were to hire local managers, they be considered as the "traditional" managers in place of Rosenberg. Mr. McLaren moved the approval of Western. The motion passed unanimously.

Mr. McLaren stated that the local managers did not have the capacity of the national managers, but stated the Board could give them a smaller allocation to get them started. Ms. Mares moved that Alliance Capital be eliminated from consideration, in view of the fact that it would not provide a diversification of styles given its emphasis on mortgages. The motion passed unanimously.

Ms. Mares stated that the local managers could be retained in the portfolio so they can prove themselves. She stated there would be no expectation they would do anything vastly different from what the internal staff is doing. Mr. Schmidt noted the difference in fees charged by IAI and Norwest Bank. Mr. Groschen stated that IAI's fee should be as low as Norwest's. Ms. Mares stated that the new individual at IAI, Larry Hill, has potential. Mr. Schmidt stated that the Board should not retain IAI unless it lowers its fee. Mr. Groschen moved approval of IAI and Norwest provided that the fee for each is no more than 20 basis points. Mr. Bailey noted that monitoring the local managers is not as difficult as monitoring national managers. Mr. Ryan stated that 20 basis points falls into the third quartile of fees paid to bond managers. Mr. Bicker stated that fees would be negotiated

with all managers, and recommended that 20 basis points fee for all be established. The committee concurred that all fees should be 20 basis points or less.

Mr. Appleby recommended that \$75 million be allocated to Norwest and \$25 million to IAI. He stated that IAI manages only \$60 million in discretionary accounts, and doesn't have the capacity to take a big increase in assets. Mr. Bicker stated the Board could allocate \$150 million each to Morgan Stanley, Lehman, Western and Miller Anderson, \$65 to Norwest and \$35 to IAI, with the understanding that IAI's allocation would increase as the private placement portfolio became liquid. Mr. McLaren stated that any increases in commitments would have to be warranted by investment performance.

Mr. Mattson stated that according to his information, IAI has only \$60 million in discretionary accounts, and so a differential in allocation is in order. Mr. Groschen moved IAI be allocated \$25 million and Norwest \$75 million. Mr. Bicker stated that Norwest had given an excellent presentation, and the new individual at IAI has good potential. Mr. Bailey stated that of the equity managers, Norwest has been one of the most responsive and consistent managers, whereas IAI has had some problems fulfilling the Board's quantitative objectives. Mr. Groschen withdrew his motion. Mr. Schmidt moved to allocate \$75 million to Norwest Bank at a fee of 20 basis points. Mr. Schmidt withdrew his motion. Ms. Mares moved to allocate \$75 million to Norwest Bank and \$25 million to IAI with a maximum fee of 20 basis points for each firm. The motion passed on a 6-1 vote, with Mr. McCann voting in the negative. Ms. Mares moved to keep the private placement portfolio in-house. The motion passed unanimously.

Mr. Bicker stated that the Board would have eight debt pools; six external fixed income manager pools, one private placement pool, and one in short maturities allocated to real estate, venture capital and other alternative investments. Ms. Mares suggested the private placement pool could be allocated to an external manager if creative ideas were presented for its management. In response to a question from Mr. McLaren, Mr. Bicker stated the managers would be funded with securities from the existing bond portfolio.

Mr. Schmidt thanked Mr. Ryan and the committee members for their contributions.

The meeting adjourned at 2:50 P.M.

Respectfully submitted,

Clifford McCann

Clifford McCann
Chairman

STATE OF MINNESOTA
EXTERNAL FIXED INCOME MANAGER INFORMATION

I. BACKGROUND DATA

- 1) Date of interview with Search Committee 4-11-84
- 2) Name of Firm: Alliance Capital Management
- 3) Address : 610 Pillsbury Center
Minneapolis, MN
- 4) Telephone : (612) 332-1544
- 5) Contact : Worth Bruntjen (portfolio manager)
- 6) Date Business Commenced: 1976 - Minneapolis office
- 7) Affiliation with other firms (i.e., parent management companies, insurance companies, brokerage firms, investment banking firms, or other entities): Alliance Capital Management is a wholly-
owned subsidiary of Donaldson, Lufkin Jenrette, a publicly-
held securities firm.
- 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? Investment adviser

Portfolio management of Alliance Capital is conducted through six regional offices located in: New York, Chicago, Cleveland, Dallas, San Francisco and Minneapolis. The firm's research analysts are all located in New York as is its headquarters.

The focus of this report is on the Minneapolis office where the SBI's account would be managed.

Personnel *

- 1) Number of Investment Department personnel: 11
- 2) Number of fixed income portfolio managers: 2
- 3) Number of full-time fixed income security analysts : 0
- 4) Does firm have an in-house bond trader : 0
- 5) Number of portfolio managers and investment analysts added in:
 past three years 2
- 6) Number of portfolio managers and investment analysts which have left firm in:
 past three years 0 their initiative 0 firm's initiative 0
- 7) Elaboration on answers to questions #5 and #6.
 Two portfolio managers, one in fixed income, one in common stocks have been added

- 8) Experience of fixed income investment personnel:

	<u>NUMBER OF YEARS</u>		
	<u>Average</u>	<u>Low</u>	<u>High</u>
Portfolio Managers	<u>13</u>	<u>2</u>	<u>20</u>
Security Analysts	<u>-</u>	<u>-</u>	<u>-</u>

- 9) Average number of accounts per manager: 7
- Limit on number of accounts per manager : 10 - 12

- 10) Biographical data on key investment personnel, including education and work experience (attached to this report).

- 11) Describe the firm's financial incentives for investment managers.

Alliance Capital's portfolio managers are compensated through both a salary and a bonus plan. The bonus is determined by the firm's compensation committee, based on a manager's perceived contribution to the firm's investment effort as a whole and the manager's investment performance results.

- 12) Identify the member(s) of the firm who would most likely be directly responsible for managing the SBI's account.

Worth Bruntjen manages all the Minneapolis office's fixed income assets.

- 13) How many accounts and total dollars does he (they) currently manage?

The Minneapolis office has only two separate fixed income accounts, the State of Wyoming (\$470 million) and Minnegasco (\$10 million). The office also manages 22 portions (valued at \$240 million) of balanced accounts. In addition, Bruntjen manages a \$160 million mortgage securities mutual fund for Alliance Capital.

- 14) Describe firm's experience with managing the money of public funds.

Minneapolis Office:

Minneapolis Fire Department
University of Minnesota
Minnesota State Board of Investment
State of Wyoming

Client Base *

1) For accounts under management as of December 31, 1983 provide the following information:

<u>Accounts</u>	<u>Number</u>	<u>Assets (market value in millions)</u>				<u>Percent of Total Assets Fully Discretionary</u>
		<u>Total</u>	<u>Stocks</u>	<u>Bonds</u>	<u>Cash</u>	
Total	47	\$2,201	\$1,307	\$794	\$100	100%
Fixed Income only	2	465	XXX	440	25	100

2) Account breakdown by number of fixed income accounts:

	<u>12-31-81</u>	<u>12-31-82</u>	<u>12-31-83</u>
Under \$10 million	_____	_____	<u>1</u>
\$10-\$50	_____	_____	_____
\$50-\$100	_____	_____	_____
\$100-\$200	_____	_____	_____
Over \$200	<u>1</u>	<u>1</u>	<u>1</u>
Size of Largest Account		<u>\$455,000,000</u>	
Size of Smallest Account		<u>\$ 10,000,000</u>	

3) Describe any limitations the firm currently imposes or plans to impose regarding:

Number of Clients	None
Total assets under management	None
Maximum account size	\$500,000,000
Minimum account size	\$ 10,000,000

- 4) List the names, and the dollar sizes of firm's five largest fixed income accounts.

State of Wyoming	\$455 million
Minnegasco	\$ 10 million

Wyoming and Minnegasco are the Minneapolis office's only separate fixed income client.

- 5) Provide the names and sizes of all accounts greater than \$5 million that the firm lost in 1981, 1982 and 1983.

None

- 6) Describe firm's management fee schedule.

.30% - first \$10 million
.25% - next \$20 million
.20% - next \$20 million
.15% - thereafter

- 7) Relevant information on past performance.

Performance data represents the returns on an equal-weighted composite of the entire Alliance Capital fixed income employee benefit accounts.

II. INVESTMENT PHILOSOPHY

- 1) Describe in broad terms the firm's overall fixed income investment management philosophy.

The firm has three primary objectives in managing fixed income assets:

- 1) Preserve capital in declining markets
- 2) Achieve a real rate of return
- 3) Maximize interest income. Alliance views the compounded return from interest income as the most important element of the total return on fixed income assets.

The firm desires to reduce the risk associated with the ownership of fixed income assets by achieving a high internal cash flow within the portfolio. The firm believes that this strategy will allow for a more stable return and permit more flexibility in repositioning the portfolio as needed.

Alliance Capital attempts to take advantage of the sizable information flow readily available to a large investment organization, while at the same time maintain a portfolio management that allows for timely, flexible investment decisions. To this end a decentralized committee structure, composed of the portfolio managers located in its regional offices, is used to develop economic scenarios, set asset mix and quality targets, and identify attractive sectors. The committees set guidelines within which the individual portfolio managers are expected to construct their portfolios. However, within these guidelines, the portfolio managers are given significant discretion to implement their own creative strategies.

III. INVESTMENT MANAGEMENT PROCESS

- 1) Describe the firm's management style with respect to asset allocation.

The firm is not an active asset allocator. It tends to make only gradual moves into and out of cash over the course of an interest rate cycle.

- 2) List range of cash position of fixed income portfolio over last three years.

0 - 35% (Alliance system)

- 3) List the range of the average duration (or maturity if duration figures unavailable) of fixed income portfolio over last three years.

3 - 9 Years (Alliance system)

- 3) Describe the firm's process for formulating, implementing and controlling fixed income investment strategy. In particular, discuss the subjects of economic analysis, interest rate forecasting and issue selection.

The fixed income strategy setting process at Alliance begins with the deliberations of the firm's Economics Committee. Economists for Alliance develop a macro analysis of the economy. Utilizing a DRI - computer model and using their own judgements regarding the course of economic activity and monetary and fiscal policies, a forecast of the cyclical (6 - 12 months) and secular (3 - 4 years) course of interest rates and the shape of the yield curve is prepared. This forecast is updated and approved by the Committee formally on a quarterly basis.

The Fixed Income Strategy Committee, composed of regional fixed income portfolio managers and headed by the New York office, meets weekly via a conference call. Utilizing the best, neutral and worst case forecasts for interest rates developed by the Economics Committee, the Fixed Income Strategy Committee considers the impact on the returns provided by different maturities. Through this type of analysis, the committee attempts to quantify the risk-reward opportunities of the various maturities.

The Fixed Income Strategy Committee sets maturity, quality and sector ranges for all portfolios. The guidelines are felt to be sufficiently broad to give the individual portfolio managers significant discretion. The portfolio managers are reviewed monthly for compliance. In certain instances, a portfolio manager may be allowed to deviate outside the sector ranges. Such is the case with the Minneapolis office manager who wishes to have a much heavier weighting in mortgage securities than is allowed for in the guidelines.

The portfolio managers are solely in charge of issue selection for their own portfolios. The Minneapolis office attempts to add value by closely examining the terms of each issue selected. In terms of corporate bonds, the office utilizes a rigorous swap analysis comparing the yields and conditions of substitutable securities. In terms of mortgage securities, the office will examine the prepayment experience and location of the issuer. The office has also used floating rate notes extensively at times.

- 4) Assuming the firm's managers have read the SBI's investment guidelines (i.e., restrictions concerning allowable investments and targets relating to risk and return), can they work under them?

Although the Alliance system has in the past recommended duration targets above the SBI's maximum seven years, the Minneapolis office believes that it can easily conform to the SBI's guidelines.

- 5) Will the SBI's account be managed on a separate basis? If not, explain?

Yes. Further, the firm's accounts may differ widely in their investment orientation depending on the client's risk return objectives.

- 6) Assuming that the SBI's account is one of the larger that the firm will manage, does the firm anticipate any problems in absorbing the SBI's assets with respect to investment process, philosophy etc.?

The Minneapolis office currently manages roughly \$900 million in fixed income assets and envisions no difficulty in taking on the SBI's account.

IV. ORGANIZATION CAPABILITIES

Fixed income research process

- 1) What are the firm's principle research and information sources?

Wall Street research sources. The Minneapolis office also uses various computer models to analyze the attractiveness of individual issues.

- 2) How does the firm focus fixed income research.

Given the maturity, quality and sector targets set by the Fixed Income Committee, the Minneapolis office has a preference for mortgage securities. It also utilizes a rigorous swap analysis to consider the attractiveness of various corporate securities.

Trading

- 1) Give a description of the firm's trading operation.

All trading for the Minneapolis office accounts is done by the Minneapolis office's portfolio manager.

- 2) To what extent is the firm willing to allocate the commission dollars generated in the management of SBI assets to the SBI for its research purposes?

To the extent such commissions are available, the Minneapolis office will comply with the SBI's requests.

Communication

- 1) How does the firm communicate with clients?

Format and Frequency

Monthly asset listing and transactions report.
Quarterly investment review.

Who in the organization would handle contact with the SBI?

Worth Bruntjen.

Will the firm's account manager be available for periodic visits to the SBI's offices?

Yes.

V. FINANCIAL VIABILITY AND ETHICS

- 1) Provide a copy of the firm's most recent ADV II statement (to be attached to this report).
- 2) Describe any censure by the SEC or any litigation pending against the firm.

In 1979, Alliance was censured by the SEC based on the practice of a dormant brokerage subsidiary which had charged certain clients minimum NYSE commissions in connection with transactions in OTC securities during the period May 1973 to April 1975. Such practices were voluntarily discontinued prior to the SEC's inquiry and thus do not pertain to Alliance's current investment management practices.

No litigation is currently pending against the firm.

- 3) Is the firm aware of any potential conflicts of interest in managing SBI assets?

No.

IV. MISCELLANEOUS

- 1) Does the firm envision utilizing financial futures in its management of the SBI's account. Explain

The Minneapolis office is currently making use of options to limit the downside potential of the fixed income portfolio. Options have been written on up to 1/3 of the value of some of its fixed income portfolios.

- 2) Notify the firm that State Street Bank will be managing its cash reserves.

Done.

- 3) Does the firm have any significant objections to funding its SBI account out of the current SBI's current holdings?

The Minneapolis office would be willing to take on both the SBI's current publicly - traded and private placement issues.

LORI L. FERRERA

Joined Alliance Capital March 25, 1984

PROFESSIONAL EXPERIENCE:

Fixed Income Assistant. First Bank Minneapolis, Minneapolis, Minnesota. September, 1981 to 1984. Major responsibilities included the trading of all taxable fixed income securities for the bank's securities portfolio and all institutional and individual trust clients, and, monitoring and advising staff of current market conditions and expectations.

- . Participated in daily departmental Investment Strategy Committee meetings and contributed to the decision making process regarding investment policy setting and strategy implementation.
- . Performed statistical, fundamental, and technical analysis of the financial markets using time-sharing data services, computer facilities and proprietary data analysis techniques.
- . Analyzed options on futures and options on cash bonds and executed all options trades.
- . Analyzed and traded all government and corporate bonds.
- . Analyzed and traded money market securities.
- . Performed swap analysis including yield pickup swaps, substitution swaps, and rate anticipation swaps.
- . Provided institutional trust clients with research and advice on specific investment strategies such as, immunization, portfolio dedication, and cash flow matching. Designed and implemented investment strategies in order to reduce contribution requirements of clients for pension liabilities.
- . Monitored credit quality of current and future investments.
- . Participated in the management of the liquidity needs of actively managed bond portfolios.

EDUCATION:

B.A. Augsburg College. Minneapolis, Minnesota. September, 1977 to May, 1981.

Major: Business Administration
Specialization: Finance

WORTH BRUNTJEN

VICE PRESIDENT



Mr. Bruntjen, previously a principal of Harrison, Bruntjen Associates Inc., joined Alliance in early 1978. Formerly, he was a Vice President and Senior Fixed Income Portfolio Manager for the Marquette Capital Management Corporation in Minneapolis. He was a consulting economic and portfolio strategist for Dain, Kalman & Quail, Inc. previously. Mr. Bruntjen attended the University of Heidelberg, Germany and Carleton College and received his B.B.A. with honors from the University of Minnesota. Investment experience 19 years.

STATE OF MINNESOTA
EXTERNAL FIXED INCOME MANAGER INFORMATION

I. BACKGROUND DATA

- 1) Date of interview with Search Committee 2/1/84
- 2) Name of Firm: Discount Corporation of New York Advisers
- 3) Address : 58 Pine Street
New York, NY 10005
- 4) Telephone : (212) 248-8989
- 5) Contact : William Callahan (marketing rep.)
- 6) Date Business Commenced: 1978
- 7) Affiliation with other firms (i.e., parent management companies, insurance companies, brokerage firms, investment banking firms, or other entities): The firm is a wholly-owned subsidiary
of Discount Corporation of New York, a dealer in money
market instruments.
- 8) Ownership : Discount Corporation is a privately held
corporation.
- 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?

Investment Adviser

Personnel

- 1) Number of Investment Department personnel: 9
- 2) Number of fixed income portfolio managers: 3
- 3) Number of full-time fixed income security analysts : 0
- 4) Does firm have an in-house bond trader : No
- 5) Number of portfolio managers and investment analysts added in:
 past three years 1
- 6) Number of portfolio managers and investment analysts which have left firm in:
 past three years 0 their initiative 0 firm's initiative 0
- 7) Elaboration on answers to questions #5 and #6.

- 8) Experience of fixed income investment personnel:

NUMBER OF YEARS

	<u>Average</u>	<u>Low</u>	<u>High</u>
Portfolio Managers	<u>11</u>	<u>8</u>	<u>15</u>
Security Analysts	<u>--</u>	<u>--</u>	<u>--</u>

- 9) Average number of accounts per manager: Accounts are managed jointly.
 Limit on number of accounts per manager : _____

- 10) Biographical data on key investment personnel, including education and work experience (attached to this report).

- 11) Describe the firm's financial incentives for investment managers.

The firm's portfolio managers are compensated through salaries and a profit sharing plan. Profits are distributed by senior management based upon their subjective evaluation of the managers' performance.

- 12) Identify the member(s) of the firm who would most likely be directly responsible for managing the SBI's account.

Patricia DeBlank and Douglas Tayler manage all the firms accounts as a team.

- 13) How many accounts and total dollars does he (they) currently manage?

Ten accounts valued at \$1 billion.

- 14) Describe firm's experience with managing the money of public funds.

The firm's only public fund client was the Governmental Development Bank of Puerto Rico.

Client Base

1) For accounts under management as of December 31, 1983 provide the following information:

<u>Accounts</u>	<u>Number</u>	<u>(market value in millions)</u>	<u>Assets</u>	<u>Bonds</u>	<u>Cash</u>	<u>Percent of Total Assets Fully Discretionary</u>
		<u>Total</u>	<u>Stocks</u>			
Total	10	\$1000	0	\$600	\$400	100%
Fixed Income only	10	\$1000	XXX	\$600	\$400	100%

2) Account breakdown by number of fixed income accounts:

	<u>12-31-81</u>	<u>12-31-82</u>	<u>12-31-83</u>
Under \$10 million	<u>0</u>	<u>0</u>	<u>0</u>
\$10-\$50	<u>3</u>	<u>0</u>	<u>2</u>
\$50-\$100	<u>0</u>	<u>3</u>	<u>3</u>
\$100-\$200	<u>1</u>	<u>1</u>	<u>4</u>
Over \$200	<u>1</u>	<u>1</u>	<u>1</u>
Size of Largest Account		<u>\$230 million</u>	
Size of Smallest Account		<u>\$35 million</u>	

3) Describe any limitations the firm currently imposes or plans to impose regarding:

Number of Clients	25
Total assets under management	\$2.5 billion
Maximum account size	None
Minimum account size	\$50 million

- 4) List the names, and the dollar sizes of firm's five largest fixed income accounts.

J.P. Getty Museum	\$230 million
Frank Russell Trust	165 million
American Cancer Society	135 million
General Dynamics	100 million

- 5) Provide the names and sizes of all accounts greater than \$5 million that the firm lost in 1981, 1982 and 1983.

The firm's \$65 million account for Kaiser Steel was lost when the company was acquired by another company. Discount also lost its \$45 million IteI account when the company declared bankruptcy.

- 6) Describe firm's management fee schedule.

.20% - first \$100 million
.15% - thereafter

- 7) Relevant information on past performance.

Performance data represents an equal-weighted average of all discretionary fixed income tax-exempt accounts.

II. INVESTMENT PHILOSOPHY

- 1) Describe in broad terms the firm's overall fixed income investment management philosophy.

Discount's investment philosophy is almost entirely focused upon interest rate anticipation. The firm believes that it can add value to fixed income management by altering its position on the yield curve frequently and sharply in response to expected near-term movements in interest rates. This approach is predicated upon the firm's close association with its parent, Discount Corporation, a prominent dealer in money market securities.

The firm makes little or no attempt to add to performance through credit analysis. Rather, Discount prefers to avoid credit risk by investing almost entirely in Treasury and Agency securities.

Viewing the bond market as historically being in a bear stage roughly three-quarters of the time, Discount on average holds extremely short duration portfolios (roughly one year). It will extend out to durations over two years only in rare periods when it is quite optimistic on the near-term outlook for interest rates.

III. INVESTMENT MANAGEMENT PROCESS

- 1) Describe the firm's management style with respect to asset allocation.

Discount is an active asset allocator. If the firm is very negative on the near-term outlook for interest rates, it will withdraw completely to cash equivalents. Likewise, if it is very optimistic on the course of interest rates, it may make sizeable near-term moves into long bonds.

- 2) List range of cash position of fixed income portfolio over last three years.

0-100%.

- 3) List the range of the average duration (or maturity if duration figures unavailable) of fixed income portfolio over last three years.

0-7.5 years. However, the firm's move to the long end of the duration range, occurring during the second half of 1982, was very short-lived. On average, the firm has maintained a duration slightly under one year.

- 3) Describe the firm's process for formulating, implementing and controlling fixed income investment strategy. In particular, discuss the subjects of economic analysis, interest rate forecasting and issue selection.

Discount's Investment Policy Committee (IPC), which is composed of four members of the parent firm and three from the subsidiary, meets daily to discuss the economic and market factors impacting the near-term and intermediate-term direction of interest rates. The IPC's conclusions generally take the form of informal advice regarding whether the portfolios should take a greater or lesser degree of maturity risk. The portfolio managers are not bound by this advice. Rather, utilizing both technical analysis of interest rate trends and fundamental analysis of economic factors affecting rates, the portfolio managers interpret the IPC's advice as they see appropriate and modify their clients' portfolios based on the clients' risk-return objectives.

- 4) Assuming the firm's managers have read the SBI's investment guidelines (i.e., restrictions concerning allowable investments and targets relating to risk and return), can they work under them?

Discount has serious concerns regarding its ability to effectively implement its investment style if the lower end of the SBI's duration limit is applied to portfolios managed by the firm.

- 5) Will the SBI's account be managed on a separate basis? If not, explain?

Yes, but subject to specific client risk tolerances, all portfolios are managed in a similar manner.

- 6) Assuming that the SBI's account is one of the larger that the firm will manage, does the firm anticipate any problems in absorbing the SBI's assets with respect to investment process, philosophy etc.?

Given the fact that the firm invests almost entirely in Treasury securities, which are highly liquid, the firm would anticipate no problem in taking on the SBI's account.

IV. ORGANIZATION CAPABILITIES

Fixed income research process

- 1) What are the firm's principle research and information sources?

The primary source of information to the firm is derived from the parent company, with its many Wall Street money market contacts. This includes informal sources of information obtained by the parent's traders and managers as well regularly published Wall Street fixed income reports.

- 2) How does the firm focus fixed income research.

The firm does virtually no credit research. Further, it tends to buy only current issues. Thus, with the exception of analyzing the spread between Treasury and Agency issues, the focus of the firm's research is on interest rate movements.

Trading

- 1) Give a description of the firm's trading operation.

Trading is conducted by the portfolio managers themselves. No trades are conducted with the parent firm.

- 2) To what extent is the firm willing to allocate the commission dollars generated in the management of SBI assets to the SBI for its research purposes?

Since the firm trades in Treasury and Agency issues, no commissions are available to direct.

Communication

- 1) How does the firm communicate with clients?

Format and Frequency

Monthly phone conversations regarding current strategy with the clients.

Monthly asset listings.

Quarterly written summary of investment strategy.
Who in the organization would handle contact with the SBI?

Either Patricia DeBlank or Douglas Taylor.

Will the firm's account manager be available for periodic visits to the SBI's offices?

Yes.

V. FINANCIAL VIABILITY AND ETHICS

- 1) Provide a copy of the firm's most recent ADV II statement (to be attached to this report).
- 2) Describe any censure by the SEC or any litigation pending against the firm.

None.

- 3) Is the firm aware of any potential conflicts of interest in managing SBI assets?

No.

IV. MISCELLANEOUS

- 1) Does the firm envision utilizing financial futures in its management of the SBI's account. Explain

Discount does not intend to use financial futures, believing that they are inappropriate for its style of management.

- 2) Notify the firm that State Street Bank will be managing its cash reserves.

Done. However, Discount would prefer to manage its own cash equivalents, given the parent firm's expertise in the field.

- 3) Does the firm have any significant objections to funding its SBI account out of the current SBI's current holdings?

The firm has no significant experience in trading corporate securities and thus would be somewhat uncomfortable taking on the SBI's corporate holdings.

Samuel B. Stare, President, Director and member of Investment Policy Committee, Discount Corporation of New York Advisers, joined the firm in February 1983.

Mr. Stare graduated from the University of Wisconsin, B.B.A., 1948 and the Pacific Coast Banking School, University of Washington, 1959. He served in the United States Navy as a Naval Aviator, Lieutenant (J.G.), in the Philippine Theatre in World War II.

Mr. Stare (born 4/15/25) retired in September, 1982, following 32 years service, as Senior Vice President & Treasurer of Union Bank, Los Angeles, California. He has been a regular lecturer on investments at the Graduate Schools of Banking at the University of Washington and the University of Wisconsin. He is a former Chairman of the American Bankers Association, Bank Investments and Funds Management Division and a former member of the U.S. Government and Federal Agencies Securities Committee of the Public Securities Association.

Patricia W. deBlank, Executive Vice President, Director and member of Investment Policy Committee, Discount Corporation of New York Advisers, joined the firm in 1978. Vice President, Discount Corporation of New York.

Graduated University of Michigan Honors Economics, B.A., 1967, and Harvard Graduate School of Business, M.B.A., 1969. Employed by Brown Brothers Harriman & Co., Deputy Manager, until May 1978. Managed assets over \$2 billion in fixed income markets directing account relationships, operational, and staff support; member of Bond Policy Committee directing investment strategy of all managed fixed income accounts.

Ms. deBlank (born 5/7/45) is a Governor of Money Marketeers of New York University. Member of Money Market Club, Treasury Securities Club, American Institute of Finance, American Association of Economists. Part lecturer at New York Institute of Finance, Institutional Investor Bond Conference. Member of Harvard Club and Harvard Business School Club of New York.

Douglas C. Taylor, Vice President and member of Investment Policy Committee, Discount Corporation of New York Advisers, joined the firm in 1978. Assistant Vice President, Discount Corporation of New York.

Graduated George Washington University, Political Science, B.A., 1973. Employed By Morgan Guaranty Trust Company until 1978. Held several positions which included money market securities trading; responsible for the Bank's Federal Funds position; assistant to senior officer in management of foreign client dollar assets in fixed income securities.

Mr. Taylor (born 12/7/49) is a member of Alumni Executive Committee, Taft School; Trustee and Treasurer of Franklin College.

William J. Callahan, Vice President, Discount Corporation of New York Advisers, joined the firm in 1982. Responsible for Discount Advisers National Marketing Program.

Mr. Callahan graduated from the Wharton School, University of Pennsylvania, B.S. Economics, 1964. He was previously employed as Senior Vice President, Treasurer's Division, European American Bank, and as National Sales Manager, Lombard-Wall, Inc.

He is a member of the Treasury Securities Club, Money Market Club,

STATE OF MINNESOTA
EXTERNAL FIXED INCOME MANAGER INFORMATION

I. BACKGROUND DATA

- 1) Date of interview with Search Committee 4-11-84
- 2) Name of Firm: Investment Advisers, Inc.
- 3) Address : 1100 Dain Tower
Minneapolis, MN 55402
- 4) Telephone : (612) 371-7780
- 5) Contact : Larry Hill (portfolio manager)
- 6) Date Business Commenced: 1947
- 7) Affiliation with other firms (i.e., parent management companies, insurance companies, brokerage firms, investment banking firms, or other entities): IAI is a wholly-owned subsidiary of
Inter-Regional Financial Group, Inc., a publicly-held financial
services holding company.
- 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?

Investment Adviser.

Personnel

- 1) Number of Investment Department personnel: 12
- 2) Number of fixed income portfolio managers: 2
- 3) Number of full-time fixed income security analysts : 3
- 4) Does firm have an in-house bond trader : Yes
- 5) Number of portfolio managers and investment analysts added in:
 past three years 4
- 6) Number of portfolio managers and investment analysts which have left firm in:
 past three years 0 their initiative firm's initiative
- 7) Elaboration on answers to questions #5 and #6.

Two equity analysts and an equity portfolio manager have been hired. Larry Hill was hired to be the firm's primary fixed income manager in early 1984.

- 8) Experience of fixed income investment personnel:

NUMBER OF YEARS

	<u>Average</u>	<u>Low</u>	<u>High</u>
Portfolio Managers	<u>19</u>	<u>7</u>	<u>31</u>
Security Analysts	<u> </u>	<u> </u>	<u> </u>

- 9) Average number of accounts per manager: 12 - 15
 Limit on number of accounts per manager : 15
- 10) Biographical data on key investment personnel, including education and work experience (attached to this report).

- 11) Describe the firm's financial incentives for investment managers.

The firm's managers are compensated through salaries and bonuses. The bonuses are determined by IAI's CEO as a function of a manager's account performance, contribution to the firm's research effort, and contribution to the firm's group investment meetings.

- 12) Identify the member(s) of the firm who would most likely be directly responsible for managing the SBI's account.

Larry Hill and Dick Tschudy jointly manage the firm's fixed income accounts. Ken Thorsen serves as a back-up fixed income manager.

- 13) How many accounts and total dollars does he (they) currently manage?

Nine accounts valued at \$82 million.

- 14) Describe firm's experience with managing the money of public funds.

City of Los Angeles Employees
City of Waterloo Fire & Police
City of Sioux Falls
Minneapolis Fire
Minneapolis Employees
Minneapolis Police
Minnesota State Board of Investment
Minnesota Workers Compensation
North Dakota Public Employees
State of Maryland
State of New Hampshire
St. Paul Police

Client Base

1) For accounts under management as of December 31, 1983 provide the following information:

<u>Accounts</u>	<u>Number</u>	<u>(market value in millions)</u> <u>Total</u>	<u>Assets</u> <u>Stocks</u>	<u>Bonds</u>	<u>Cash</u>	<u>Percent</u> <u>of Total</u> <u>Assets Fully</u> <u>Discretionary</u>
Total	116	\$1812	\$1077	\$570	\$165	100%
Fixed Income only	10	\$142	XXX	\$142	--	100%

2) Account breakdown by number of fixed income accounts:

	<u>12-31-81</u>	<u>12-31-82</u>	<u>12-31-83</u>
Under \$10 million	<u>5</u>	<u>5</u>	<u>7</u>
\$10-\$50	<u>1</u>	<u>2</u>	<u>2</u>
\$50-\$100	<u> </u>	<u> </u>	<u>1</u>
\$100-\$200	<u> </u>	<u> </u>	<u> </u>
Over \$200	<u> </u>	<u> </u>	<u> </u>
Size of Largest Account		<u>\$60 million</u>	
Size of Smallest Account		<u>\$5 million</u>	

3) Describe any limitations the firm currently imposes or plans to impose regarding:

Number of Clients	15 per manager
Total assets under management	None
Maximum account size	None
Minimum account size	\$10 million

Page Five

- 5) List the names, and the dollar sizes of firm's five largest fixed income accounts.

Minnesota Medical Association	\$60 million
Minnesota Medical Insurance Exchange	35 million
Dairymen, Inc.	30 million
Minnesota Workers Compensation	15 million
Genex	11 million

- 5) Provide the names and sizes of all accounts greater than \$5 million that the firm lost in 1981, 1982 and 1983.

None

- 6) Describe firm's management fee schedule.

.50% - first \$10 million
.35% - thereafter

- 7) Relevant information on past performance.

Performance data represents an equal-weighted average of the returns on all fixed income employee benefit accounts.

II. INVESTMENT PHILOSOPHY

- 1) Describe in broad terms the firm's overall fixed income investment management philosophy.

IAI's primary fixed income investment objective is to achieve above average investment performance over a market cycle with relatively low portfolio return volatility. The firm attempts to avoid excessively negative returns in down markets and to significantly outperform in up markets.

The firm's investment approach is oriented around successfully identifying the economy's point in the credit cycle and constructing portfolios to take advantage of expected subsequent developments in the cycle. This credit cycle analysis is the predominate factor in the firm's interest rate forecasts and its maturity selection decisions, from which the firm believes it derives most of its value-added to the investment process.

IAI stresses a group approach to investment decision-making, in which all of its portfolio managers actively participate. Responsibility for gathering specific types of information relevant to investment decisions tends to be delegated on an individual basis to the managers. That is, one manager serves as the firm's economist, another as its quantitative analyst, another as its fixed income expert and so on. All managers are expected to bring knowledge of their assigned areas to frequently held group meetings where investment issues are intensively discussed and acted upon.

III. INVESTMENT MANAGEMENT PROCESS

- 1) Describe the firm's management style with respect to asset allocation.

IAI is a moderate asset allocator. Although the firm does not attempt to take advantage of short-term market moves, it will make significant use of cash as a defensive tool, trying to anticipate longer-term cyclical moves in interest rates.

- 2) List range of cash position of fixed income portfolio over last three years.

0-50%.

- 3) List the range of the average duration (or maturity if duration figures unavailable) of fixed income portfolio over last three years.

3-6 years.

- 3) Describe the firm's process for formulating, implementing and controlling fixed income investment strategy. In particular, discuss the subjects of economic analysis, interest rate forecasting and issue selection.

Fixed income strategy setting begins with the quarterly formulation of a macroeconomic forecast by the firm's economist. In terms of generating an interest rate forecast, the economist concentrates on the level of production capacity slack (as measured by unemployment, percentage capacity utilization and gap between potential and actual GNP) and financial slack (as measured by the slope of the yield curve) in the economy. With this analysis, the economist attempts to identify the economy's current point in the credit cycle and forecast the future progression of the cycle and its impact on interest rates and the shape of the yield curve. This forecast is then brought before IAI portfolio manager group where it is discussed and if necessary refined.

This forecast drives the firm's maturity, quality and sector selection decision. IAI's portfolio manager, in conjunction with the economist, utilizes the credit cycle analysis and interest rate forecasts to determine the appropriate duration for the portfolio. Quality and sector selection is made through traditional yield spread analysis. In addition, certain bond characteristics such as call features are considered. Finally, a subjective effort to evaluate risk in the portfolio is carried out by considering the sensitivity of potential selections to alternative moves in interest rates. On a monthly basis the fixed income strategy is presented to the portfolio manager group for discussion.

IAI uses Moody's and Standard & Poor's for credit analysis, doing little internal work. The firm places very limited emphasis on individual security selection.

- 4) Assuming the firm's managers have read the SBI's investment guidelines (i.e., restrictions concerning allowable investments and targets relating to risk and return), can they work under them?

IAI believes that the SBI's guidelines are quite consistent with its own approach.

- 5) Will the SBI's account be managed on a separate basis? If not, explain?

Yes, although, subject to client restrictions, all accounts are managed in a similar manner.

- 6) Assuming that the SBI's account is one of the larger that the firm will manage, does the firm anticipate any problems in absorbing the SBI's assets with respect to investment process, philosophy etc.?"

Given that IAI currently manages approximately \$500 million in fixed income assets, it envisions no difficulty in taking on the SBI's account.

IV. ORGANIZATION CAPABILITIES

Fixed income research process

- 1) What are the firm's principle research and information sources?

Almost entirely Wall Street research.

- 2) How does the firm focus fixed income research.

The firm's fixed income research effort is focused on appropriate maturity, quality and sector selection, given its interest rate forecast. Very little security research is undertaken.

Trading

- 1) Give a description of the firm's trading operation.

Although the firm has a full-time trader who assists in some of the fixed income trading, IAI's fixed income portfolio manager does most of his own trading.

- 2) To what extent is the firm willing to allocate the commission dollars generated in the management of SBI assets to the SBI for its research purposes?

IAI is willing to accomodate the SBI in this matter.

Communication

- 1) How does the firm communicate with clients?

Format and Frequency

Monthly asset listing and transactions report.

Who in the organization would handle contact with the SBI?

Larry Hill

Will the firm's account manager be available for periodic visits to the SBI's offices?

Yes.

V. FINANCIAL VIABILITY AND ETHICS

- 1) Provide a copy of the firm's most recent ADV II statement (to be attached to this report).
- 2) Describe any censure by the SEC or any litigation pending against the firm.

None.

- 3) Is the firm aware of any potential conflicts of interest in managing SBI assets?

No.

IV. MISCELLANEOUS

- 1) Does the firm envision utilizing financial futures in its management of the SBI's account. Explain

IAI is interested in utilizing futures but is not prepared to do so yet. The fixed income portfolio manager has had some experience trading futures.

- 2) Notify the firm that State Street Bank will be managing its cash reserves.

Done.

- 3) Does the firm have any significant objections to funding its SBI account out of the current SBI's current holdings?

No, although the firm would prefer to receive cash.

**Investment Advisers, Inc.
Professional Staff**

**Larry R. Hill (32)
Senior Vice President (8 years of investment experience)**

- 1984 Investment Advisers, Inc. Senior Vice President and Portfolio Manager. Responsible for fixed income investment.**
- 1981 First National Bank of Minneapolis. Vice President and Department Manager of the Money Market Department.**
- 1977 First National Bank of Minneapolis. Trust Investment Officer and Portfolio Manager.**
- 1977 University of Nebraska, M.A.**
- 1976 National Bank of Commerce. Senior Fixed Income Manager.**
- 1974 University of Nebraska, B.S.**



**Investment Advisers, Inc.
Professional Staff**

Noel P. Rahn (44)
Chief Executive Officer (21 years of investment experience)

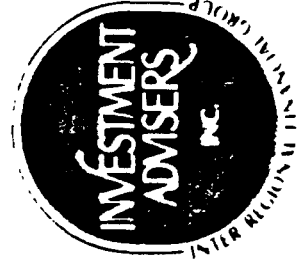
- 1974 Investment Advisers, Inc. Chief Executive Officer. Supervises administration, marketing, and portfolio management
- 1972 Paine, Webber, Jackson & Curtis, Senior Vice President and National Sales Manager
- 1971 Paine, Webber, Jackson & Curtis, National Training Director
- 1968 Paine, Webber, Jackson & Curtis, Sales Manager
- 1962 Paine, Webber, Jackson & Curtis
- 1962 University of Southern California, B.A.

Charles Mcl. Webster (48)
Chairman of the Board, C.F.A. (22 years of investment experience)

- 1970 Investment Advisers, Inc. Chairman of the Board and Portfolio Manager. Specializes in equity portfolio strategy
- 1969 Dain, Kalman & Quail, Vice President of Investment Advisers Division
- 1967 First National Bank of Minneapolis, Assistant Vice President
- 1961 First National Bank of Minneapolis, Security Analyst and Portfolio Manager
- 1966 University of Minnesota, M.B.A.
- 1957 Amherst College, B.A. cum laude

Richard H. Tschudy (53)
President, C.F.A. (31 years of investment experience)

- 1970 Investment Advisers, Inc. President. In-house economist and a Senior Portfolio Manager
- 1963 Platt, Tschudy & Co., Investment counseling
- 1957 First National Bank of Minneapolis, Manager, Investment Advisory Division
- 1952 First Bank Corp., Security Analyst
- 1952 University of Minnesota, B.B.A.



STATE OF MINNESOTA
EXTERNAL FIXED INCOME MANAGER INFORMATION

I. BACKGROUND DATA

- 1) Date of interview with Search Committee 2/1/84
- 2) Name of Firm: Lehman Management Co., Inc.
- 3) Address : 55 Water Street
New York, NY 10041
- 4) Telephone : (212) 558-2062
- 5) Contact : Joe Scanlon
- 6) Date Business Commenced: 1928
- 7) Affiliation with other firms (i.e., parent management companies, insurance companies, brokerage firms, investment banking firms, or other entities): Lehman Management is a wholly-owned subsidiary of Lehman Brothers Kuhn Loeb, Inc.
- 8) Ownership : Lehman Brothers has recently agreed to be acquired by Shearson/American Express.
- 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?

Investment Adviser

Personnel

- 1) Number of Investment Department personnel: 47
- 2) Number of fixed income portfolio managers: 5
- 3) Number of full-time fixed income security analysts : 2
- 4) Does firm have an in-house bond trader : 2
- 5) Number of portfolio managers and investment analysts added in:
past three years 3
- 6) Number of portfolio managers and investment analysts which have left firm in:
past three years 1 their initiative 1 firm's initiative 0
- 7) Elaboration on answers to questions #5 and #6.

- 8) Experience of fixed income investment personnel:

NUMBER OF YEARS

	<u>Average</u>	<u>Low</u>	<u>High</u>
Portfolio Managers	<u>7</u>	<u>4</u>	<u>10</u>
Security Analysts	<u>5</u>	<u>4</u>	<u>6</u>

- 9) Average number of accounts per manager: 7
- Limit on number of accounts per manager : 11-12
- 10) Biographical data on key investment personnel, including education and work experience (attached to this report).

- 11) Describe the firm's financial incentives for investment managers.

Portfolio managers, in addition to their salaries, may receive bonuses based upon their 1) portfolio performance relative to the market; 2) their contribution to the firm's investment process; 3) their interaction with clients. The bonuses are determined by senior Lehman management.

A further incentive is the possibility of eventually earning a partnership in the firm.

- 12) Identify the member(s) of the firm who would most likely be directly responsible for managing the SBI's account.

Steven Kohlhagen

- 13) How many accounts and total dollars does he (they) currently manage?

Six accounts valued at \$550 million.

- 14) Describe firm's experience with managing the money of public funds.

Approximately one-half of Lehman's managed assets belong to public funds. These clients are:

Allegheny County (PA)
State of Connecticut
City of El Paso
State of Hawaii
State of Illinois Universities
State of Indiana
Kern County (CA)
Mass. Bay Transportation Authority
State of Mississippi
New York City Board of Education
New York City Employees
New York City Fire
New York City Police
New York City Teachers
State of New York Teachers
City of Sacramento (CA)
San Bernadino County (CA)
State of Virginia

Client Base

- 1) For accounts under management as of December 31, 1983 provide the following information:

<u>Accounts</u>	<u>Number</u>	<u>Assets (market value in millions)</u>			<u>Percent of Total Assets Fully Discretionary</u>	
		<u>Total</u>	<u>Stocks</u>	<u>Bonds</u>		<u>Cash</u>
Total	128	\$5,389	\$1,332	\$3,085	\$972	98%
Fixed Income only	39	\$2,736	XXX	\$2,399	\$337	100%

- 2) Account breakdown by number of fixed income accounts:

	<u>12-31-81</u>	<u>12-31-82</u>	<u>12-31-83</u>
Under \$10 million	<u>2</u>	<u>4</u>	<u>3</u>
\$10-\$50	<u>6</u>	<u>11</u>	<u>20</u>
\$50-\$100	<u>2</u>	<u>5</u>	<u>7</u>
\$100-\$200	<u>1</u>	<u>3</u>	<u>6</u>
Over \$200	<u>1</u>	<u>2</u>	<u>3</u>
Size of Largest Account	<u>\$300 million</u>		
Size of Smallest Account	<u>\$5 million</u>		

- 3) Describe any limitations the firm currently imposes or plans to impose regarding:

Number of Clients	Approximately 60
Total assets under management	Approximately \$4 billion
Maximum account size	None
Minimum account size	\$50 million

- 4) List the names, and the dollar sizes of firm's five largest fixed income accounts.

New York City Employees	\$300 million
New York City Teachers	265 million
State of Illinois Universities	200 million
State of Mississippi	180 million
New York City Police	150 million

- 5) Provide the names and sizes of all accounts greater than \$5 million that the firm lost in 1981, 1982 and 1983.

None.

- 6) Describe firm's management fee schedule.

.40% - first \$10 million
.30% - next \$20 million
.20% - thereafter

- 7) Relevant information on past performance.

Through 1980, performance results represent the return on the fixed income portion of (\$100 million) of one discretionary, balanced tax-exempt account. Thereafter, performance data represents an equal-weighted average for all discretionary fixed income tax-exempt accounts under management for at least one year.

II. INVESTMENT PHILOSOPHY

- 1) Describe in broad terms the firm's overall fixed income investment management philosophy.

Lehman's approach to fixed income management is one of conservative, high quality (A or better) intermediate maturity portfolios designed to avoid significant risk exposure. The firm's goal is to produce consistently superior results over an interest rate cycle by participating in bull markets and outperforming in bear markets. Rather than achieving periods of exceptional under and over-performance relative to the market, Lehman focuses on attaining moderately above average returns with limited volatility.

The firm's primary focus is on successful forecasting of cyclical interest rate trends and, thereby, the positioning of portfolios in terms of maturity, quality and sectors. However, in line with its conservative investment philosophy, Lehman avoids making rapidly changing, significant bets based on its interest rates forecasts. Rather, the portfolios' compositions tend to change gradually over the cycle and do not acquire extreme positions either in low quality or long or short maturities.

Lehman also believes that consistent value-added can be attained through security selection. Through the use of quantitative valuation models and credit analysis, the firm attempts to purchase undervalued (and sell overvalued) securities consistent with the portfolios' maturity, quality and sector make-up.

III. INVESTMENT MANAGEMENT PROCESS

- 1) Describe the firm's management style with respect to asset allocation.

Lehman is not an active asset allocator, tending to make only gradual shifts into and out of cash over the course of an interest rate cycle.

- 2) List range of cash position of fixed income portfolio over last three years.

5-45%.

- 3) List the range of the average duration (or maturity if duration figures unavailable) of fixed income portfolio over last three years.

2-6.5 years.

- 3) Describe the firm's process for formulating, implementing and controlling fixed income investment strategy. In particular, discuss the subjects of economic analysis, interest rate forecasting and issue selection.

Fixed income strategy begins with a 12-18 month interest rate forecast set by Lehman's Fixed Income Policy Committee (FIPC), which is composed of the firm's fixed income portfolio managers. Utilizing contacts with prominent Wall Street economists and capital market specialists, as well as Lehman Brothers' own economists, the FIPC arrives at a consensus decision as to the economy's current point in business and interest rate cycle and the likely progression from that point. This forecast is then brought to the Investment Policy Committee (IPC), composed of senior Lehman Management personnel and representatives of the equity and fixed income management groups. The IPC, as part of its portfolio strategy process, discusses and approves the interest rate forecast, with or without modifications. Based on the IPC's interest rate forecast then, the FIPC will set maturity, quality and sector targets for all fixed income portfolios.

The valuation model developed by Rosenberg Associates is utilized to search for under and overvalued securities in the maturity, quality and sectors specified by the FIPC. The Rosenberg model is a multi-factor valuation tool which identifies unexplained deviations from the risk-free yield curve. Based on the output from the valuation model, credit analysis is conducted on the recommended issues, overseen by one of the portfolio managers and utilizing the sizable fixed income data base of Lehman Brothers and research supplied by other major brokerage houses. Based on the recommendations of the valuation model and the credit research, the portfolio managers make specific security selections within the targeted maturities, qualities, and sectors.

- 4) Assuming the firm's managers have read the SBI's investment guidelines (i.e., restrictions concerning allowable investments and targets relating to risk and return), can they work under them?

Lehman believes that the SBI's guidelines are very compatible with its investment style, both in terms of the duration and the quality restrictions. At times the firm has held portfolios with durations below the three-year minimum. However, Lehman feels that it can accommodate the SBI's guidelines without compromising its basic investment style.

- 5) Will the SBI's account be managed on a separate basis? If not, explain?

Yes, but subject to client restrictions, all accounts are managed on a similar basis.

- 6) Assuming that the SBI's account is one of the larger that the firm will manage, does the firm anticipate any problems in absorbing the SBI's assets with respect to investment process, philosophy etc.?

Because the firm manages approximately \$2.6 billion in fixed income assets, it sees no problem in taking on the SBI's account.

IV. ORGANIZATION CAPABILITIES

Fixed income research process

- 1) What are the firm's principle research and information sources?

The fixed income group has three primary sources of research information:

- 1) Rosenberg bond valuation model
- 2) Lehman Brothers fixed income research
- 3) Other Wall Street brokerage houses

- 2) How does the firm focus fixed income research.

Once the maturity, quality and sector positions for the portfolios have been determined, the Rosenberg model is employed to identify over and undervalued securities.

Trading

- 1) Give a description of the firm's trading operation.

Lehman management has a four person trading desk headed by a senior trader. Although the portfolio managers discuss specific trading strategy with the traders, the trading desk is left with significant discretion in executing trades. No trades are carried out with the parent firm.

- 2) To what extent is the firm willing to allocate the commission dollars generated in the management of SBI assets to the SBI for its research purposes?

Lehman is willing to direct commissions for the SBI's benefit.

Communication

- 1) How does the firm communicate with clients?

Format and Frequency

Quarterly report covering the firm's market outlook, performance, asset holdings (available monthly if desired) and transactions.

Who in the organization would handle contact with the SBI?

Steven Kohlberg
Joe Scanlon

Will the firm's account manager be available for periodic visits to the SBI's offices?

Lehman's standard policy is to visit with each client twice a year—once in New York and once at the client's office.

V. FINANCIAL VIABILITY AND ETHICS

- 1) Provide a copy of the firm's most recent ADV II statement (to be attached to this report).
- 2) Describe any censure by the SEC or any litigation pending against the firm.

None.

- 3) Is the firm aware of any potential conflicts of interest in managing SBI assets?

No.

IV. MISCELLANEOUS

- 1) Does the firm envision utilizing financial futures in its management of the SBI's account. Explain

Lehman does not utilize financial futures currently for its clients' accounts, but it is studying the issue and may wish to do so at some point in the future.

- 2) Notify the firm that State Street Bank will be managing its cash reserves.

Done.

- 3) Does the firm have any significant objections to funding its SBI account out of the current SBI's current holdings?

No.

Louis J. Ganz

First Vice President

B.S., Rensselaer Polytechnic Institute,...M.B.A., University of California... Ph.D., New York University Graduate School of Business...1967, Officer and Portfolio Administrator, College Retirement Equities Fund... 1970, General Manager, Catalactic Corporation...1971, Professor, University of Sao Paulo; Portfolio Manager, Banco de Investimento do Brazil... 1972, Founder and Manager, Servicos Institutionals de Investimento; Consultant, First National Bank of Boston - Brazil...1974, Vice President, International Research, Paine Webber Mitchell Hutchins...1980, Vice President, Senior Portfolio Manager, Citicorp...1983, First Vice President, Senior Portfolio Manager, Lehman Management Co., Inc.

Paul A. Rutter

First Vice President

A.B., Princeton University...New York University Graduate School of Business Administration, International Finance...1975, Marine Midland Bank, Investment Officer and Fixed Income Portfolio Manager...1979, Mercantile-Safe Deposit & Trust Co., Managing Officer and Senior Portfolio Manager of the Fixed Income Department ...1981, Lehman Management Co., Inc., Senior Fixed Income Portfolio Manager.

Steven W. Kohlhagen

Vice President

B.A., College of William and Mary... 1969, International Bank for Reconstruction and Development... 1971, M.A., Stanford University...1973, Ph.D., Stanford University... 1973-1983, Professor of International Economics and Finance, University of California, Berkeley... 1976, Economist, U.S. Treasury ... 1978, Senior Staff Economist, Council of Economic Advisors... 1983, Lehman Brothers Kuhn Loeb Banking Division... 1983, Lehman Management Co., Inc.

Alan J. Reef

Vice President

B.S. University of Pennsylvania, Wharton School... M.B.A., New York University Graduate School of Business Administration with Distinction...1980, Kidder, Peabody & Co., Credit Specialist...1980, Arthur Andersen & Co., Tax Accountant...1981, Lehman Management Co., Inc., Fixed Income Portfolio Manager and Coordinator of Credit Research...1982, Certified Public Accountant. Member of Board of Directors, Fixed Income Analysts Society of New York.

Joseph P. Scanlon, Jr.

First Vice President

B.S., M.B.A., Graduate Assistant-Economics; St. John's University...1973, Vice President, Paine Webber Jackson & Curtis...1974, Vice President, Director of Marketing, Asset Management Division, Loeb Rhoades & Co., Inc... 1978, Vice President, Director of New Business/Client Servicing, Institutional Investment Division, Citibank...1982, Principal, Senior Vice President, Director of New Business/Client Services, First Reserve Corporation...1983, First Vice President, New Business/Client Services, Lehman Management Co., Inc.

STATE OF MINNESOTA
EXTERNAL FIXED INCOME MANAGER INFORMATION

I. BACKGROUND DATA

- 1) Date of interview with Search Committee 1/31/84
- 2) Name of Firm: Loomis Sayles
- 3) Address : 225 Franklin Street
Boston, MA 02110
- 4) Telephone : (617) 482-2450
- 5) Contact : Dan Fuss (portfolio manager)
- 6) Date Business Commenced: 1926
- 7) Affiliation with other firms (i.e., parent management companies, insurance companies, brokerage firms, investment banking firms, or other entities): Loomis Sayles is an independent
affiliate of New England Mutual Life, a mutual life insurance
company.
- 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?

Investment Adviser

Personnel

- 1) Number of Investment Department personnel: 81
- 2) Number of fixed income portfolio managers: 5
- 3) Number of full-time fixed income security analysts : 7
- 4) Does firm have an in-house bond trader : Yes
- 5) Number of portfolio managers and investment analysts added in:
 past three years 4
- 6) Number of portfolio managers and investment analysts which have left firm in:
 past three years 2 their initiative 0 firm's initiative 2
- 7) Elaboration on answers to questions #5 and #6.

One fixed income and three fixed income analysts were added. No information was given regarding departures.

- 8) Experience of fixed income investment personnel:

NUMBER OF YEARS

	<u>Average</u>	<u>Low</u>	<u>High</u>
Portfolio Managers	<u>20</u>	<u>15</u>	<u>30</u>
Security Analysts	<u>17</u>	<u>1</u>	<u>32</u>

- 9) Average number of accounts per manager: 11
 Limit on number of accounts per manager : Roughly 15-16
- 10) Biographical data on key investment personnel, including education and work experience (attached to this report).

- 11) Describe the firm's financial incentives for investment managers.

In addition to salaries and attractive pension and deferred profit sharing plans, the firm offers its managers a bonus for performance in the first quartile of the Becker fixed income universe over one and three years.

- 12) Identify the member(s) of the firm who would most likely be directly responsible for managing the SBI's account.

Dan Fuss (primary manager)
Morgan Hatch (backup manager)
Diarmuid O'Connell (backup manager)

- 13) How many accounts and total dollars does he (they) currently manage?

Dan Fuss currently manages six accounts valued at roughly \$300 million.

- 14) Describe firm's experience with managing the money of public funds.

Current Loomis Sayles public fund fixed income clients include:

State of Arkansas
State of Connecticut
State of Vermont
State of West Virginia
Pennsylvania Public School Employees
Milwaukee County
City of Milwaukee

Client Base

- 1) For accounts under management as of December 31, 1983 provide the following information:

<u>Accounts</u>	<u>Number</u>	<u>Assets</u> <u>(market value in millions)</u>			<u>Cash</u>	<u>Percent</u> <u>of Total</u> <u>Assets Fully</u> <u>Discretionary</u>
		<u>Total</u>	<u>Stocks</u>	<u>Bonds</u>		
Total	462	\$9,813	\$4,161	\$5,652	*	65%
Fixed Income only	46	\$3,228	XXX	\$3,228	*	39%

- 2) Account breakdown by number of fixed income accounts:

	<u>12-31-81</u>	<u>12-31-82</u>	<u>12-31-83</u>
Under \$10 million	<u>31</u>	<u>27</u>	<u>24</u>
\$10-\$50	<u>7</u>	<u>11</u>	<u>10</u>
\$50-\$100	<u>1</u>	<u>2</u>	<u>6</u>
\$100-\$200	<u>1</u>	<u>2</u>	<u>2</u>
Over \$200	<u>2</u>	<u>3</u>	<u>4</u>
Size of Largest Account	<u>\$530 million</u>		
Size of Smallest Account	<u>\$5 million</u>		

- 3) Describe any limitations the firm currently imposes or plans to impose regarding:

Number of Clients	None
Total assets under management	None
Maximum account size	None
Minimum account size	\$10 million

- 4) List the names, and the dollar sizes of firm's five largest fixed income accounts.

Pennsylvania Public School Employees	\$530 million
State of Connecticut	120 million
City of Milwaukee	110 million
Blue Cross Blue Shield	65 million
State of Vermont	60 million
Rohm and Haas	55 million

- 5) Provide the names and sizes of all accounts greater than \$5 million that the firm lost in 1981, 1982 and 1983.

Xerox was a balanced fund client who left over dissatisfaction regarding the firm's equity performance.

- 6) Describe firm's management fee schedule.

.50% - first \$5 million.
.40% - next \$5 million.
.30% - next \$40 million.
Negotiable thereafter.

- 7) Relevant information on past performance.

Performance results represent an equal-weighted average of all discretionary long-term oriented fixed income employee benefit accounts managed by the Institutional Department.

II. INVESTMENT PHILOSOPHY

- 1) Describe in broad terms the firm's overall fixed income investment management philosophy.

Loomis stresses adding value to fixed income management through sector and individual security research. The firm concentrates on identifying sectors and specific securities, BAA and above, whose credit ratings are likely to change and thus allow the portfolio to produce higher (or avoid lower) yields and reap (or avoid) eventual capital gains (losses).

Loomis has a strong equity research staff and it attempts to apply this expertise to its fixed income management by providing its credit analysts complete access to its fundamental equity research. Utilizing intensive credit analysis, the firm selectively swaps securities and sectors over the course of an interest rate cycle. Loomis attempts to allow its fixed income portfolios to carry a higher yield than would ordinarily be possible for a stated level of credit risk.

The choice of portfolio maturity and quality weightings are considered secondary to successful credit analysis. The firm tends to make maturity and quality shifts only gradually over the course of an interest rate cycle. Depending on the particular point in the cycle the firm may utilize convertibles selling at bond value and emphasize call protection. The firm will hold a wide range of types of issues but tends to own very few mortgage-related bonds.

III. INVESTMENT MANAGEMENT PROCESS

- 1) Describe the firm's management style with respect to asset allocation.

In its fixed income portfolios the firm is not an active asset allocator. Cash tends to be raised and lowered only gradually over the course of an interest rate cycle and rarely reaches a significant proportion of the total fixed income portfolios.

- 2) List range of cash position of fixed income portfolio over last three years.

0-12%. The maximum cash position the firm has ever held has been roughly 50%.

- 3) List the range of the average duration (or maturity if duration figures unavailable) of fixed income portfolio over last three years.

Approximately 3-7 years, with a tendency to be on the upper side of this range.

- 3) Describe the firm's process for formulating, implementing and controlling fixed income investment strategy. In particular, discuss the subjects of economic analysis, interest rate forecasting and issue selection.

Fixed income strategy is formulated by Loomis' Bond Policy Committee (BPC), which is composed of the firm's fixed income portfolio managers, research directors and chief economist. Based primarily on the firm's economic and interest rate forecasts, the BPC at least monthly makes maturity structure and sector weighting decisions. The portfolio managers are required to adhere to these decisions in constructing their portfolios.

Individual issue selection is left to the discretion of the portfolio managers. Working in close conjunction with the equity research staff, Loomis' credit analysts compile a preferred credit list. This list is composed of the securities of companies whose financial characteristics indicate a likelihood of undergoing credit rating upgrades, and thus that offer both attractive yields, relative to current ratings, and the capital gains. While the portfolio managers are not obligated to do so, most of their security selections come from this preferred credit list.

- 4) Assuming the firm's managers have read the SBI's investment guidelines (i.e., restrictions concerning allowable investments and targets relating to risk and return), can they work under them?

The firm is quite comfortable with the SBI's duration and quality guidelines, believing them to be consonant with its own investment approach.

- 5) Will the SBI's account be managed on a separate basis? If not, explain?

Yes, although, except for the portfolio managers' specific issue selections and client restrictions, all portfolios are managed in a similar manner.

- 6) Assuming that the SBI's account is one of the larger that the firm will manage, does the firm anticipate any problems in absorbing the SBI's assets with respect to investment process, philosophy etc.?

Loomis manages approximately \$3.2 billion in fixed income assets and thus anticipates no difficulty in absorbing the SBI's account.

IV. ORGANIZATION CAPABILITIES

Fixed income research process

- 1) What are the firm's principle research and information sources?

Loomis generates most of its fixed income research internally. The firm has a large equity research staff which is extensively used by the smaller credit analysis staff.

Some external credit research is followed by the firm, but it is not heavily relied upon.

- 2) How does the firm focus fixed income research.

In the process of the normal company coverage, the firm's equity research staff generates data which is utilized by the credit analysis staff. The equity staff produces information on historical, current, and pro forma funds flow, earnings power, balance sheets, etc. The credit analysts then review this data to identify attractive purchase or deteriorating sale candidates.

Trading

- 1) Give a description of the firm's trading operation.

The fixed income division has two traders. Dan Fuss tends to allow the traders significant discretion in completing trades within certain price targets.

- 2) To what extent is the firm willing to allocate the commission dollars generated in the management of SBI assets to the SBI for its research purposes?

The firm has such arrangements with many other clients and is willing to do so with the SBI.

Communication

- 1) How does the firm communicate with clients?

Format and Frequency

The firm provides its clients with monthly written reports regarding asset holdings and transactions.

Who in the organization would handle contact with the SBI?

Dan Fuss

Tom Walsh also serves the firm as a "local ombudsman" independently visiting clients to ensure that their needs are being met adequately.

Will the firm's account manager be available for periodic visits to the SBI's offices?

Yes.

V. FINANCIAL VIABILITY AND ETHICS

- 1) Provide a copy of the firm's most recent ADV II statement (to be attached to this report).
- 2) Describe any censure by the SEC or any litigation pending against the firm.

None.

- 3) Is the firm aware of any potential conflicts of interest in managing SBI assets?

No.

IV. MISCELLANEOUS

- 1) Does the firm envision utilizing financial futures in its management of the SBI's account. Explain

The firm does not currently utilize financial futures. It is not convinced that they would add value to active fixed income management.

- 2) Notify the firm that State Street Bank will be managing its cash reserves.

Done.

- 3) Does the firm have any significant objections to funding its SBI account out of the current SBI's current holdings?

No.

LOOMIS, SAYLES & COMPANY

BOND POLICY COMMITTEE

This committee is responsible for assessing the outlook for interest rates and the relative opportunities and risks in short-term instruments and longer bonds. It meets monthly or more frequently as circumstances warrant. Committee membership is deliberately designed to capitalize on particular contributions that can be made by senior professionals specializing in three areas: economic research, investment research and portfolio management. The members are:

John S. Bunton, C.F.A., Committee Chairman, Vice President, Director and Manager of Fixed-Income Research. B.A., M.B.A., Dartmouth College. 32 years of investment experience, all with Loomis, Sayles.

Daniel J. Fuss, C.F.A., Vice President and Managing Partner - Institutional Department. B.S., M.B.A., Marquette University. 24 years of investment experience; 8 years with Loomis, Sayles.

Morgan P. Hatch, C.F.A., Vice President and Fixed-Income Portfolio Manager, Institutional Department. B.A., Harvard University. 30 years investment experience; 7 years with Loomis, Sayles.

Richard S. Holway, C.F.A., Senior Vice President and Director. B.A., Wesleyan University; M.B.A., Dartmouth (Tuck School). 33 years of investment experience; 31 years with Loomis, Sayles.

Timothy J. Hunt, C.F.A., Committee Secretary, Vice President, Assistant Manager of Fixed-Income Research and Market Analyst. A.R.S.M., Royal School of Mines; B.Sc., University of London; M.B.A., Harvard University. 25 years investment experience, all with Loomis, Sayles.

Diarmuid O'Connell, Vice President and Fixed-Income Portfolio Manager, Institutional Department. B.S., University of Pennsylvania (Wharton School). 29 years investment experience; 7 years with Loomis, Sayles.

Dr. Joseph E. Whitbread, Jr., Vice President and Chief Economist. B.S., Lemoyne College; M.A., Northwestern University; Ph.D., Syracuse University. 12 years investment experience; 8 years with Loomis, Sayles.

STATE OF MINNESOTA
EXTERNAL FIXED INCOME MANAGER INFORMATION

I. BACKGROUND DATA

- 1) Date of interview with Search Committee 2/2/84
- 2) Name of Firm: Miller, Anderson & Sherrerd
- 3) Address : Two Bala-Cynwyd Plaza
Bala-Cynwyd, PA 19004
- 4) Telephone : (215) 839-1620
- 5) Contact : Richard Worley
- 6) Date Business Commenced: 1969
- 7) Affiliation with other firms (i.e., parent management companies, insurance companies, brokerage firms, investment banking firms, or other entities): None
- 8) Ownership : The firm is privately-held and is owned by its six general partners.
- 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?

Investment Adviser

Personnel

- 1) Number of Investment Department personnel: 10
- 2) Number of fixed income portfolio managers: 2
- 3) Number of full-time fixed income security analysts : 0
- 4) Does firm have an in-house bond trader : Yes
- 5) Number of portfolio managers and investment analysts added in:
 past three years 1
- 6) Number of portfolio managers and investment analysts which have left firm in:
 past three years 0 their initiative 0 firm's initiative 0
- 7) Elaboration on answers to questions #5 and #6.

Thomas Bennett joined the firm in January, 1984.

- 8) Experience of fixed income investment personnel:

	<u>NUMBER OF YEARS</u>		
	<u>Average</u>	<u>Low</u>	<u>High</u>
Portfolio Managers	<u>12</u>	<u>10</u>	<u>14</u>
Security Analysts	<u>NA</u>	<u>NA</u>	<u>NA</u>

- 9) Average number of accounts per manager: 15
- Limit on number of accounts per manager : None

- 10) Biographical data on key investment personnel, including education and work experience (attached to this report).

- 11) Describe the firm's financial incentives for investment managers.

Richard Worley is a partner in the firm and thus shares in its profits, in addition to his salary. Tom Bennett, who was recently hired, may be offered ownership in the firm at some time in the future. Currently, he is compensated through a salary and a performance bonus.

- 12) Identify the member(s) of the firm who would most likely be directly responsible for managing the SBI's account.

Richard Worley and Tom Bennett jointly manage all the firm's fixed income accounts.

- 13) How many accounts and total dollars does he (they) currently manage?

19 fixed income only and 22 fixed income portion of balanced accounts together valued at \$1.3 billion.

- 14) Describe firm's experience with managing the money of public funds.

MAS's only public fund clients are the Pennsylvania Public School Employees and Pennsylvania State Employees.

Client Base

1) For accounts under management as of December 31, 1983 provide the following information:

<u>Accounts</u>	<u>Number</u>	<u>Total</u>	<u>Assets (market value in millions)</u>			<u>Percent of Total Assets Fully Discretionary</u>
			<u>Stocks</u>	<u>Bonds</u>	<u>Cash</u>	
Total	48	\$3501.6	\$1876.1	\$2090.8	\$534.7	100%
Fixed Income only *	31	1277.6	XXX	1090.8	186.8	100%

*Includes 22 fixed income portions of balanced accounts.

2) Account breakdown by number of fixed income accounts:

	<u>12-31-81</u>	<u>12-31-82</u>	<u>12-31-83</u>
Under \$10 million	<u>5</u>	<u>3</u>	<u>6</u>
\$10-\$50	<u>8</u>	<u>9</u>	<u>18</u>
\$50-\$100	<u>0</u>	<u>2</u>	<u>5</u>
\$100-\$200	<u>1</u>	<u>0</u>	<u>0</u>
Over \$200	<u>0</u>	<u>1</u>	<u>2</u>
Size of Largest Account		<u>\$300 million</u>	
Size of Smallest Account		<u>\$6.1 million</u>	

3) Describe any limitations the firm currently imposes or plans to impose regarding:

Number of Clients	The firm has no formal policies established for future fixed income account growth. In general terms, 20 fixed income only accounts, valued at \$2.5 billion, is an informal goal.
Total assets under management	
Maximum account size	None
Minimum account size	\$20 million

- 4) List the names, and the dollar sizes of firm's five largest fixed income accounts.

Pennsylvania State Employees	\$300 million
Pennsylvania Public School Employees	200 million
John Hopkins University	95 million
Kaiser Foundation Health Plan	50 million
Standard Oil of Ohio	40 million

- 5) Provide the names and sizes of all accounts greater than \$5 million that the firm lost in 1981, 1982 and 1983.

None.

However, one client, Texas Instruments, changed the firm's assignment to a balanced account, from fixed income only, after eight months.

- 6) Describe firm's management fee schedule.

.20% on all amounts managed.

- 7) Relevant information on past performance.

Performance results represent an equal-weighted average of all discretionary fixed income employee benefit accounts.

II. INVESTMENT PHILOSOPHY

- 1) Describe in broad terms the firm's overall fixed income investment management philosophy.

MAS believes that pension funds should have a permanent commitment to fixed income securities. Bonds are expected to provide protection against deflation and dampen portfolio return volatility. The firm believes that long-term bonds, while providing expected positive real returns, are too risky from the standpoint of return volatility and their sensitivity to rising inflation. On the other hand, short-term fixed income securities are also considered risky in that over time they cannot be expected to provide a positive real return. MAS believes that intermediate maturity, high quality bonds are best suited to meet plan sponsors' needs. These bonds provide expected positive real returns, adequate deflation protection and also have less price volatility than long-term bonds. Thus, the firm will make moderate maturity adjustments over the course of an interest rate cycle but generally remain within a 3-7 year duration range. Within its desired maturity ranges, the firm emphasizes the purchase of securities which are somehow misunderstood and thus, provide exceptional yields for a given level of risk. The firm does not believe that consistent value-added can be provided by swapping back and forth between corporates. This approach has led to 40-95% of the portfolios being invested in mortgage related securities over the last five years. MAS does not expect this pattern to change significantly in the near future.

III. INVESTMENT MANAGEMENT PROCESS

- 1) Describe the firm's management style with respect to asset allocation.

MAS is not an active asset allocator. It tends to make only gradual moves into or out of cash over the course of an interest rate cycle.

- 2) List range of cash position of fixed income portfolio over last three years.

0-25%, although in the period 1978-80, the firm was as high as 50% in cash.

- 3) List the range of the average duration (or maturity if duration figures unavailable) of fixed income portfolio over last three years.

3-7 years.

- 3) Describe the firm's process for formulating, implementing and controlling fixed income investment strategy. In particular, discuss the subjects of economic analysis, interest rate forecasting and issue selection.

MAS's equity and fixed income portfolio managers meet weekly to discuss the economic and financial markets outlook. Twice monthly the portfolio managers review investment strategy. Out of these discussions arise a consensus economic and interest rate forecast and an asset mix decision for balanced accounts. Based on these meetings, the fixed income portfolio managers determine their maturity, quality and sector targets.

While the firm is willing to undertake credit analysis on a selective basis and move to pick up higher yields in solid credits, generally it believes that there are few opportunities to consistently earn high returns with this strategy.

With the firm's fixed income emphasis on misunderstood and underresearched securities, the portfolios have been concentrated in mortgage related securities over the last several years. The economic outlook is tied into the security selection strategy. For example, if interest rates are expected to decline and the prepayment experience to improve, discount yields and conventional non-assumable mortgages would be emphasized. Further, the mortgage securities are managed intensively, including, for example, calls to servicers to enforce due on sale clauses. The firm is just beginning to experiment with using the Rosenberg bond valuation model and is as yet unsure how it will blend the model's recommendations into its investment approach.

- 4) Assuming the firm's managers have read the SBI's investment guidelines (i.e., restrictions concerning allowable investments and targets relating to risk and return), can they work under them?

MAS believes that the SBI's quality and duration guidelines are very consistent with its investment management style.

- 5) Will the SBI's account be managed on a separate basis? If not, explain?

Yes, but subject to client restrictions, all accounts are managed similarly.

- 6) Assuming that the SBI's account is one of the larger that the firm will manage, does the firm anticipate any problems in absorbing the SBI's assets with respect to investment process, philosophy etc.?

Because it already manages \$1.3 billion in fixed income assets, the firm envisions no difficulty in taking on the SBI's account.

IV. ORGANIZATION CAPABILITIES

Fixed income research process

- 1) What are the firm's principle research and information sources?

Wall Street sources are used extensively by the firm for economic research. Worley's previous association with Goldman Sachs provides the firm with numerous Wall Street research contacts.

- 2) How does the firm focus fixed income research.

The firm tends to concentrate on mortgage related securities with its target maturity ranges.

Trading

- 1) Give a description of the firm's trading operation.

The fixed income portfolio managers do most of the trading, especially in more difficult-to-trade mortgage securities. MAS does have a trading desk which is used to handle highly liquid securities, such as Treasuries.

- 2) To what extent is the firm willing to allocate the commission dollars generated in the management of SBI assets to the SBI for its research purposes?

The firm has no experience in providing for such arrangements with their fixed income clients, but it is willing to accommodate the SBI in this matter.

Communication

- 1) How does the firm communicate with clients?

Format and Frequency

Monthly holdings report
Quarterly strategy paper

Who in the organization would handle contact with the SBI?

Richard Worley

Will the firm's account manager be available for periodic visits to the SBI's offices?

MAS would be willing to have Worley visit the SBI's offices twice a year.

V. FINANCIAL VIABILITY AND ETHICS

- 1) Provide a copy of the firm's most recent ADV II statement (to be attached to this report).
- 2) Describe any censure by the SEC or any litigation pending against the firm.

None.

- 3) Is the firm aware of any potential conflicts of interest in managing SBI assets?

No.

IV. MISCELLANEOUS

- 1) Does the firm envision utilizing financial futures in its management of the SBI's account. Explain

The firm used forward contracts extensively in 1979. Further, Tom Bennett had extensive experience with futures while at DuPont.

Currently, however, the firm is not using financial futures. It may wish to begin such a program next year but would consult closely with clients before doing so.

- 2) Notify the firm that State Street Bank will be managing its cash reserves.

Done.

- 3) Does the firm have any significant objections to funding its SBI account out of the current SBI's current holdings?

No.

RICHARD B. WORLEY, PARTNER - Age 38

University of Tennessee 1968 (with honors in Economics)
University of Texas - Graduate Economics 1968-70
Goldman, Sachs, 1970-78
 Vice President and Economist, 1974
 Investment Policy Committee, 1974-78
 Director of Bond Market Research, 1975-78
Miller, Anderson & Sherrerd, 1978, Partner 1980-
Stanford University Graduate School of Business Investment
 Management Program, 1979; Lecturer, 1980-81
University of Pennsylvania, Investment Board, 1980-
Federal National Mortgage Association,
 Advisory Council, 1983-

THOMAS L. BENNETT - Age 36

University of Cincinnati, 1969
U.S. Navy, 1969-1972
University of Cincinnati - MBA 1974
E. I. DuPont De Nemours & Company, 1974-1983
 Portfolio Manager, 1979-1983
Miller, Anderson & Sherrerd, Fixed-Income Portfolio Manager 1984-
Chartered Financial Analyst
Financial Analyst of Wilmington

STATE OF MINNESOTA
EXTERNAL FIXED INCOME MANAGER INFORMATION

I. BACKGROUND DATA

- 1) Date of interview with Search Committee 2/1/84
- 2) Name of Firm: Morgan Stanley Asset Management
- 3) Address : 1633 Broadway
New York, NY 10019
- 4) Telephone : (212) 974-2658
- 5) Contact : W. Denman Zirkle (marketing rep.)
- 6) Date Business Commenced: 1975
- 7) Affiliation with other firms (i.e., parent management companies, insurance companies, brokerage firms, investment banking firms, or other entities): Morgan Stanley is a wholly-owned subsidiary of Morgan Stanley, Inc., a New York-based financial services holding company.
- 8) Ownership : Morgan Stanley, Inc., is a privately-held company whose 60 managing directors and 97 principals are active members of the firm.
- 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?

Investment Adviser

Personnel

- 1) Number of Investment Department personnel: 58
- 2) Number of fixed income portfolio managers: 3
- 3) Number of full-time fixed income security analysts : 0
- 4) Does firm have an in-house bond trader : No
- 5) Number of portfolio managers and investment analysts added in:
 past three years 7
- 6) Number of portfolio managers and investment analysts which have left firm in:
 past three years 0 their initiative 0 firm's initiative 0
- 7) Elaboration on answers to questions #5 and #6.

- 8) Experience of fixed income investment personnel:

NUMBER OF YEARS

	<u>Average</u>	<u>Low</u>	<u>High</u>
Portfolio Managers	<u>12</u>	<u>8</u>	<u>14</u>
Security Analysts	<u>--</u>	<u>--</u>	<u>--</u>

- 9) Average number of accounts per manager: 10
- Limit on number of accounts per manager : None
- 10) Biographical data on key investment personnel, including education and work experience (attached to this report).

- 11) Describe the firm's financial incentives for investment managers.

Peter Nadosy is a principal of Morgan Stanley, Inc. and thus shares in the profits of the firm.

In addition, the portfolio managers may receive performance bonuses based on the returns produced by their portfolios and the revenue generated by their accounts.

- 12) Identify the member(s) of the firm who would most likely be directly responsible for managing the SBI's account.

Peter Nadosy and Geoffrey Gettman would jointly manage the SBI's account.

- 13) How many accounts and total dollars does he (they) currently manage?

Nadosy and Gettman each manage twelve accounts.

- 14) Describe firm's experience with managing the money of public funds.

Morgan Stanley Asset Management has had no public fund clients to this date.

Client Base

- 1) For accounts under management as of December 31, 1983 provide the following information:

<u>Accounts</u>	<u>Number</u>	<u>(market value in millions)</u> <u>Total</u>	<u>Assets</u> <u>Stocks</u>	<u>Bonds</u>	<u>Cash</u>	<u>Percent</u> <u>of Total</u> <u>Assets Fully</u> <u>Discretionary</u>
Total	40	\$1,508	\$272	\$926	\$310	88%
Fixed Income only	30	\$1,150	XXX	\$876	\$274	94

- 2) Account breakdown by number of fixed income accounts:

	<u>12-31-81</u>	<u>12-31-82</u>	<u>12-31-83</u>
Under \$10 million	<u>1</u>	<u>6</u>	<u>4</u>
\$10-\$50	<u>2</u>	<u>0</u>	<u>8</u>
\$50-\$100	<u>2</u>	<u>2</u>	<u>1</u>
\$100-\$200	<u>0</u>	<u>1</u>	<u>0</u>
Over \$200	<u>0</u>	<u>1</u>	<u>1</u>
Size of Largest Account		<u>\$140 million</u>	
Size of Smallest Account		<u>\$2 million</u>	

- 3) Describe any limitations the firm currently imposes or plans to impose regarding:

Number of Clients	None
Total assets under management	None
Maximum account size	None
Minimum account size	\$20 million

- 4) List the names, and the dollar sizes of firm's five largest fixed income accounts.

Nuclear Electric Insurance	\$140 million
Large Insurance Company	100 million
Kresge Foundation	85 million
Dana Foundation	60 million
Associated Electric and Gas Insurance	60 million

*These accounts are all non-pension funds.

Morgan Stanley fixed income group currently has roughly \$110 million under management for five institutional pension accounts. (The largest account is \$35 million).

- 5) Provide the names and sizes of all accounts greater than \$5 million that the firm lost in 1981, 1982 and 1983.

None.

- 6) Describe firm's management fee schedule.

.50% - first \$5 million
.375% - next \$5 million
.250% - thereafter

- 7) Relevant information on past performance.

Through 1980, performance data represents an equal-weighted average of all discretionary fixed income employee benefit accounts at Fiduciary Trust where Nadosy and Gettman were employees. Thereafter, performance results represents an equal-weighted average of similar accounts at MSAM.

II. INVESTMENT PHILOSOPHY

- 1) Describe in broad terms the firm's overall fixed income investment management philosophy.

The primary investment goal of Morgan Stanley's fixed income group is the preservation of capital through the generation of consistent real returns. In this respect the firm believes that market indices are not appropriate performance benchmarks because of the possibility that real returns on these indices may be negative. Rather, Morgan Stanley cites as performance standards returns relative to inflation as well as returns which potentially could be earned through passive investments in Guaranteed Investment Contracts (GIC's).

Morgan Stanley believes that its conservative approach to fixed income investing is best implemented by maintaining a sizable core portfolio (80% of the total portfolio on average) in short to intermediate maturity, high quality (A or better) securities. Large positions in maturities longer than ten years are considered risky and are only held as a temporary trading opportunities when the firm has confidence as to the trend of interest rates.

Issue selection is of secondary importance to the firm. Further, Morgan Stanley tends to avoid moving back and forth in the short-run between qualities and sectors. Rather, given its maturity decisions, the firm prefers to make significant intermediate-term bets in specific sectors of the market in which it believes persistent valuation anomalies are present. In addition, the firm will make occasional swaps, within or between sectors to capture valuation discrepancies.

III. INVESTMENT MANAGEMENT PROCESS

- 1) Describe the firm's management style with respect to asset allocation.

Morgan Stanley is not an active asset allocator, preferring to make moves into and out of cash only gradually over the course of an interest rate cycle.

- 2) List range of cash position of fixed income portfolio over last three years.

0-20%.

- 3) List the range of the average duration (or maturity if duration figures unavailable) of fixed income portfolio over last three years.

3-6 years.

- 3) Describe the firm's process for formulating, implementing and controlling fixed income investment strategy. In particular, discuss the subjects of economic analysis, interest rate forecasting and issue selection.

Morgan Stanley's fixed income strategy is based on an annual formal review of the socio-economic domestic and international trends which will affect the direction of interest rates over the coming year. Based on this analysis, the portfolio managers set a minimum required rate of return for the coming year. The portfolios' subsequent structure and management are based on these goals.

The portfolio managers then analyze the fixed income markets, searching for particular sectors whose yield spreads indicate significant longer-term pricing discrepancies. Once identified, the firm will take sizable positions in these sectors.

Overlaying this annual analysis, the firm will shift gradually its maturity and quality mix in anticipation of market changes. The portfolio managers meet twice weekly with the rest of the Morgan Stanley Asset Management portfolio managers to discuss the outlook for the economy and the fixed income and equity markets. This committee makes no formal recommendations and the fixed income group is free to interpret its discussions as it sees appropriate. Also available to the fixed income group, at its discretion, is the economic and fundamental research of the parent company. Utilizing the above information, as well as that from other Wall Street sources, the fixed income portfolio managers meet on an informal basis and make maturity, quality and individual issue decisions as they see necessary.

- 4) Assuming the firm's managers have read the SBI's investment guidelines (i.e., restrictions concerning allowable investments and targets relating to risk and return), can they work under them?

The firm believes that the SBI's quality and duration constraints are quite compatible with its own investment style.

In many of its portfolios, Morgan Stanley has placed up to 10% in non-dollar denominated bonds. This strategy would not be permitted by Minnesota statutes. The firm does not believe that this restriction would hamper its investment style significantly.

- 5) Will the SBI's account be managed on a separate basis? If not, explain?

Yes, however, subject to client restrictions, all portfolios are managed in a similar manner.

- 6) Assuming that the SBI's account is one of the larger that the firm will manage, does the firm anticipate any problems in absorbing the SBI's assets with respect to investment process, philosophy etc.?

Given that MSAM manages approximately \$1.2 billion in large institutional fixed income assets, the firm anticipates no difficulty in taking on the SBI's account.

IV. ORGANIZATION CAPABILITIES

Fixed income research process

- 1) What are the firm's principle research and information sources?

The parent company is the primary source of economic, market, and credit research for the firm. It also utilizes research provided by other Wall Street sources through its normal broker relationships.

- 2) How does the firm focus fixed income research.

Based on their annual review of the fixed income market, and the particular maturity and sectors of the market determined by this analysis, the portfolio managers subjectively apply the research made available by Morgan Stanley and other Wall Street sources.

Trading

- 1) Give a description of the firm's trading operation.

The portfolio managers do all the trading for the firm.

No trades are done with the parent company's brokerage arm.

- 2) To what extent is the firm willing to allocate the commission dollars generated in the management of SBI assets to the SBI for its research purposes?

The firm is willing to direct commissions for the SBI's benefit up to "reasonable" limits.

Communication

- 1) How does the firm communicate with clients?

Format and Frequency

Monthly holdings reports
Quarterly strategy papers

Who in the organization would handle contact with the SBI?

Peter Nadosy
Geoffrey Gettman

Will the firm's account manager be available for periodic visits to the SBI's offices?

Yes.

V. FINANCIAL VIABILITY AND ETHICS

- 1) Provide a copy of the firm's most recent ADV II statement (to be attached to this report).
- 2) Describe any censure by the SEC or any litigation pending against the firm.

None.

- 3) Is the firm aware of any potential conflicts of interest in managing SBI assets?

No.

IV. MISCELLANEOUS

- 1) Does the firm envision utilizing financial futures in its management of the SBI's account. Explain

Morgan Stanley uses forward contracts as a hedge when investing in the non-dollar fixed income markets. However, since non-dollar securities would not be bought for the SBI, the firm does not plan to utilize financial futures for the SBI's account.

- 2) Notify the firm that State Street Bank will be managing its cash reserves.

Done.

- 3) Does the firm have any significant objections to funding its SBI account out of the current SBI's current holdings?

No.

PERSONNEL PROFILES

INSTITUTIONAL INVESTMENT MANAGEMENT

Peter A. Nadosy

Peter Nadosy joined MSAM as a Vice President, Director, and Manager of the Fixed-Income Group in February 1981 following eleven years at Fiduciary Trust Company of New York, where he was head of the Fixed-Income Department and a Senior Vice President. He was responsible for the domestic and international fixed-income policy. A graduate of Harvard University, Peter received his MBA degree from Columbia University Graduate School of Business Administration. He became a Principal of Morgan Stanley Asset Management in 1982.

Geoffrey C. Getman

Geoff Getman joined Morgan Stanley Asset Management as a fixed-income portfolio manager in 1983 after eight years at Fiduciary Trust Company of New York, where he was responsible for managing dollar-denominated institutional portfolios invested in fixed-income securities worldwide. Before joining Fiduciary, he served as an officer with the U.S. Army and worked for Blyth & Co., Inc. and American International Banking Corp. A graduate of Brown University, Geoff received his MBA from Columbia Graduate School of Business.

W. Denman Zirkle

Denman Zirkle joined MSAM in June 1983, as a Marketing Director. He came to MSAM from Consolidated Rail Corporation (Conrail) where he was an Assistant Treasurer responsible for the corporate pension fund. Prior to joining Conrail in 1976, he held sales and marketing positions for IBM in Washington, Frankfurt (Germany), Atlanta, and White Plains. Den is a graduate of Virginia Polytechnic Institute and the Wharton School of the University of Pennsylvania.

STATE OF MINNESOTA
EXTERNAL FIXED INCOME MANAGER INFORMATION

I. BACKGROUND DATA

- 1) Date of interview with Search Committee 4-11-84
- 2) Name of Firm: Norwest Corporation investment management subsidiary (unnamed)
- 3) Address : Eighth and Marquette Avenue
Minneapolis, MN 55479
- 4) Telephone : (612) 372-8123
- 5) Contact : William Giese (portfolio manager)
- 6) Date Business Commenced: 1984
- 7) Affiliation with other firms (i.e., parent management companies, insurance companies, brokerage firms, investment banking firms, or other entities): The investment management subsidiary is a wholly-owned subsidiary of Norwest Corporation.
- 8) Ownership : Norwest Corporation is a publicly-held Minnesota-based financial services holding company.
- 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?

Norwest Corporation is in the final stages of spinning off an investment subsidiary to manage institutional equity and fixed income accounts. The goal of this spinoff is to create an investment organization which will operate independently of the holding company and be able to attract high quality investment managers with compensation packages competitive with those offered in the rest of the investment community.

Personnel *

- 1) Number of Investment Department personnel: 12
- 2) Number of fixed income portfolio managers: 1
- 3) Number of full-time fixed income security analysts : 1
- 4) Does firm have an in-house bond trader : Yes
- 5) Number of portfolio managers and investment analysts added in:
 past three years NA
- 6) Number of portfolio managers and investment analysts which have left firm in:
 past three years NA their initiative NA firm's initiative NA
- 7) Elaboration on answers to questions #5 and #6.

- 8) Experience of fixed income investment personnel:

	<u>NUMBER OF YEARS</u>		
	<u>Average</u>	<u>Low</u>	<u>High</u>
Portfolio Managers	<u>12</u>	<u>12</u>	<u>12</u>
Security Analysts	<u>1</u>	<u>1</u>	<u>1</u>

- 9) Average number of accounts per manager: 3
 Limit on number of accounts per manager : 10
- 10) Biographical data on key investment personnel, including education and work experience (attached to this report).

*Prospective

- 11) Describe the firm's financial incentives for investment managers.

The investment subsidiary will attempt to pay competitive compensation to its portfolio managers from a pool created out of the profits generated by the subsidiary. The CEO of the subsidiary will distribute bonuses, in addition to the portfolio managers' salaries, based upon his evaluation of a portfolio manager's contribution to client retention and investment performance.

- 12) Identify the member(s) of the firm who would most likely be directly responsible for managing the SBI's account.

William Giese will manage all of the subsidiary's fixed income accounts.

Giese is assisted by Patricia Burns.

- 13) How many accounts and total dollars does he (they) currently manage?

Giese is expecting initially to manage approximately seven accounts with a market value of roughly \$250 million.

- 14) Describe firm's experience with managing the money of public funds.

The Minnesota Investment Board's equity account is the subsidiary's only current public fund client.

Client Base *

1) For accounts under management as of December 31, 1983 provide the following information:

<u>Accounts</u>	<u>Number</u>	<u>Assets (market value in millions)</u>				<u>Percent of Total Assets Fully Discretionary</u>
		<u>Total</u>	<u>Stocks</u>	<u>Bonds</u>	<u>Cash</u>	
Total	20	\$360	\$100	\$215	\$45	100%
Fixed Income only	7	\$250	XXX	\$215	\$35	100%

2) Account breakdown by number of fixed income accounts:

	<u>12-31-81</u>	<u>12-31-82</u>	<u>12-31-83 *</u>
Under \$10 million	_____	_____	0
\$10-\$50	_____	_____	5
\$50-\$100	_____	_____	2
\$100-\$200	_____	_____	_____
Over \$200	_____	_____	_____
Size of Largest Account		<u>\$60 million</u>	
Size of Smallest Account		<u>\$15 million</u>	

3) Describe any limitations the firm currently imposes or plans to impose regarding:

Number of Clients	10
Total assets under management	\$1 billion or 10 account relationships per manager.
Maximum account size	\$250 million
Minimum account size	\$5 million

- 4) List the names, and the dollar sizes of firm's five largest fixed income accounts.

Initially the subsidiary's accounts largely will represent funds managed for the Norwest Bank Minneapolis Trust Department. The subsidiary also expects to manage the Norwest Corporation pension fund's fixed income account as well as start out with one to three corporate clients.

- 5) Provide the names and sizes of all accounts greater than \$5 million that the firm lost in 1981, 1982 and 1983.

None.

- 6) Describe firm's management fee schedule.

.40% - first \$10 million
.30% - next \$15 million
.20% - thereafter

- 7) Relevant information on past performance.

Performance data represents returns on the fixed income commingled employee benefit funds managed by William Giese at Continental Illinois through 1979. Thereafter, the data represents returns on accounts managed by Giese at Norwest Bank.

II. INVESTMENT PHILOSOPHY

- 1) Describe in broad terms the firm's overall fixed income investment management philosophy.

The firm believes in avoiding aggressive fixed income investment strategies which tend to produce extremes in performance results. The firm is satisfied to consistently produce returns near the median of other investors, believing that such a consistent annual performance will result in long-term returns in the top quartile.

To accomplish this objective the firm has established three primary investment goals:

- 1) Control portfolio volatility of returns
- 2) Maintain a portfolio with a balance of maturities
- 3) Emphasize quality and liquidity

The firm also concentrates on exploring non-traditional fixed income vehicles, which potentially offer above-average yields with no increased risk. This strategy has led the firm to make extensive use of mortgage securities and floating rate notes.

III. INVESTMENT MANAGEMENT PROCESS

- 1) Describe the firm's management style with respect to asset allocation.

The firm is not an active asset allocator, making only gradual moves into and out of cash over an interest rate cycle.

- 2) List range of cash position of fixed income portfolio over last three years.

0-30% (including the fixed income manager's experience at Continental Illinois).

- 3) List the range of the average duration (or maturity if duration figures unavailable) of fixed income portfolio over last three years.

2.5-8 years (including the fixed income portfolio manager's experience at Continental Illinois).

- 3) Describe the firm's process for formulating, implementing and controlling fixed income investment strategy. In particular, discuss the subjects of economic analysis, interest rate forecasting and issue selection.

The firm's fixed income portfolio managers initiate their investment strategy formulation process with a 6-12 month interest rate forecast: The managers, working as a team, subjectively evaluate the expected impact on interest rates of such factors as fiscal and monetary policies, economic activity, inflation, international flow of funds, supply and demand for credit, and technical factors. From this interest rate forecast, the fixed income portfolio managers subjectively project the shape of the yield curve, the prepayment experience on pass-through mortgage securities, and quality spreads. Further, in addition to a base scenario, the managers develop optimistic and pessimistic scenarios.

This analysis is not conducted necessarily on a regular basis. More often it is carried out when the firm perceives the immediate occurrence of a turning point in the interest rate cycle. Further, the forecasts are developed independently of the equity side of the firm, which may operate under a different set of economic assumptions.

The firm's interest rate analysis is used as the base input to Wilshire Associate's fixed income analysis computer package. Under each interest rate scenario, returns are calculated for a sample of representative securities (e.g. current coupon Treasuries, pass-throughs, different quality corporates). The results are subjectively evaluated by the fixed income portfolio managers to identify attractive maturities, qualities, sectors, and individual issues.

The firm does very little independent credit analysis, preferring to utilize the work of the usual credit rating organizations.

- 4) Assuming the firm's managers have read the SBI's investment guidelines (i.e., restrictions concerning allowable investments and targets relating to risk and return), can they work under them?

The firm believes that its investment approach is very compatible with the SBI's guidelines.

- 5) Will the SBI's account be managed on a separate basis? If not, explain?

Yes.

- 6) Assuming that the SBI's account is one of the larger that the firm will manage, does the firm anticipate any problems in absorbing the SBI's assets with respect to investment process, philosophy etc.?

The subsidiary has shed a number of fixed income accounts. It believes that it has the experience and now has the capacity to handle a number of large accounts such as the SBI's.

IV. ORGANIZATION CAPABILITIES

Fixed income research process

- 1) What are the firm's principle research and information sources?

The firm uses principally Wall Street sources.

- 2) How does the firm focus fixed income research.

Given its interest rate forecasts, the firm uses the Wilshire Fixed Income Analysis computer package to simulate the effect of the forecasts on the returns on various maturities, qualities, sectors and individual issues.

Trading

- 1) Give a description of the firm's trading operation.

The firm's fixed income portfolio manager will conduct all trading for the subsidiary.

- 2) To what extent is the firm willing to allocate the commission dollars generated in the management of SBI assets to the SBI for its research purposes?

The firm is willing to accommodate the SBI on this matter.

Communication

- 1) How does the firm communicate with clients?

Format and Frequency

Monthly asset listing and transactions report.
Quarterly investment review.

Who in the organization would handle contact with the SBI?

William Giese.

Will the firm's account manager be available for periodic visits to the SBI's offices?

Yes.

V. FINANCIAL VIABILITY AND ETHICS

- 1) Provide a copy of the firm's most recent ADV II statement (to be attached to this report).
- 2) Describe any censure by the SEC or any litigation pending against the firm.

None.

- 3) Is the firm aware of any potential conflicts of interest in managing SBI assets?

No.

IV. MISCELLANEOUS

- 1) Does the firm envision utilizing financial futures in its management of the SBI's account. Explain

The firm has some interest in using options to limit downside risk, although it is only in the exploratory stage at this point. The firm has no interest in using futures.

- 2) Notify the firm that State Street Bank will be managing its cash reserves.

Done.

- 3) Does the firm have any significant objections to funding its SBI account out of the current SBI's current holdings?

No.

INVESTMENT MANAGEMENT SUBSIDIARY

BIOGRAPHIES

Chief Executive Officer

ROBERT B. MERSKY - (1945)

B.S. - University of Minnesota - 1968
Chartered Financial Analyst

Bob is currently Senior Vice President and Chief Investment Officer of Norwest Bank Minneapolis' Capital Management and Trust Group. As such, he directs all investment research, as well as portfolio management of pooled funds and large employee benefit plans. Bob joined the Bank in 1963 as an Equity Securities Analyst with particular emphasis on the airline, retail, and consumer products industries. In 1976, he was named Director of Research. In addition, he was the portfolio manager in charge of the Bank's Aggressive Equity Fund from 1974 through 1979. In 1980, he assumed his current responsibilities as Chief Investment Officer.

Fixed Income Management

WILLIAM D. GIESE - (1946)

B.S. - Illinois Institute of Technology - 1969
M.B.A. - University of Michigan - 1972
Chartered Financial Analyst

Bill is currently Vice President and Manager of the Fixed Income Products Group at Norwest Bank Minneapolis. He began his professional investment management career in 1972 with the Continental Illinois Bank as a portfolio manager for balanced stock and bond accounts. In 1976, he began specializing in fixed income management for employee benefit accounts and was responsible for the trust department's corporate and government bond trading desk. He left Continental in 1980 to join Salomon Brothers in corporate bond sales, specializing in sinking fund prepurchases and bond portfolio analysis applications. He returned to active fixed income portfolio management in 1981 with Penmark Investments, where he was a Vice President and member of the investment strategy group. He left Penmark in 1982 to assume his responsibilities with Norwest.

PATRICIA BURNS - (1949)

B.S. - University of Minnesota - 1972
M.B.A. - University of Minnesota - 1982

Pat joined Norwest Bank Minneapolis in 1983 as an associate in the Special Institutional Services Division and assumed responsibility as a Fixed Income Analyst in September. Before resuming studies for her M.B.A., Pat spent 8 years in various administrative and financial positions with the University of Minnesota. At Norwest, she is involved in the quantitative evaluation of alternative market scenarios and has developed customized computer packages for analyzing zero

STATE OF MINNESOTA
EXTERNAL FIXED INCOME MANAGER INFORMATION

I. BACKGROUND DATA

- 1) Date of interview with Search Committee 2/15/84
- 2) Name of Firm: Pacific Investment Management Company
- 3) Address : 840 Newport Center Drive
P.O. Box 9000
Newport Beach, CA 92660
- 4) Telephone : (714) 640-3802
- 5) Contact : Raymond Pentz (marketing rep.)
- 6) Date Business Commenced: 1971
- 7) Affiliation with other firms (i.e., parent management companies, insurance companies, brokerage firms, investment banking firms, or other entities): Pacific Investment Management Company
(PIMCO) is a subsidiary of Pacific Mutual, a mutual life
insurance company.
- 8) Ownership : PIMCO is one-third owned by Pacific Mutual
and two-thirds owned by several principals within PIMCO.
- 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?

Investment Adviser

Personnel

- 1) Number of Investment Department personnel: 15
- 2) Number of fixed income portfolio managers: 4
- 3) Number of full-time fixed income security analysts : 0
- 4) Does firm have an in-house bond trader : No
- 5) Number of portfolio managers and investment analysts added in:
 past three years 8

- 6) Number of portfolio managers and investment analysts which have left firm in:
 past three years 4 their initiative 2 firm's initiative 2

- 7) Elaboration on answers to questions #5 and #6.
 None provided.

- 8) Experience of fixed income investment personnel:

	<u>NUMBER OF YEARS</u>		
	<u>Average</u>	<u>Low</u>	<u>High</u>
Portfolio Managers	<u>10</u>	<u>6</u>	<u>13</u>
Security Analysts	<u>--</u>	<u>--</u>	<u>--</u>

- 9) Average number of accounts per manager: 10
 Limit on number of accounts per manager : 15

- 10) Biographical data on key investment personnel, including education and work experience (attached to this report).

- 11) Describe the firm's financial incentives for investment managers.

Bonuses are distributed, in addition to salaries, based upon new business generated by the manager, investment performance, and firm profits.

- 12) Identify the member(s) of the firm who would most likely be directly responsible for managing the SBI's account.

William Gross

- 13) How many accounts and total dollars does he (they) currently manage?

Fourteen accounts valued at approximately \$2.5 billion.

- 14) Describe firm's experience with managing the money of public funds.

State of Hawaii
Illinois State Teachers
Illinois State Universities
State of Kansas
State of Mississippi
San Bernadino County (CA)
Orange County (CA)

Client Base

1) For accounts under management as of December 31, 1983 provide the following information:

<u>Accounts</u>	<u>Number</u>	<u>(market value in millions)</u> <u>Total</u>	<u>Assets</u> <u>Stocks</u>	<u>Bonds</u>	<u>Cash</u>	<u>Percent</u> <u>of Total</u> <u>Assets Fully</u> <u>Discretionary</u>
Total	59	\$5,342	\$196	\$4,321	\$825	93%
Fixed Income only	50	\$4,944	XXX	\$4,219	\$725	93%

2) Account breakdown by number of fixed income accounts:

	<u>12-31-81</u>	<u>12-31-82</u>	<u>12-31-83</u>
Under \$10 million	<u>3</u>	<u>2</u>	<u>2</u>
\$10-\$50	<u>17</u>	<u>20</u>	<u>23</u>
\$50-\$100	<u>6</u>	<u>9</u>	<u>12</u>
\$100-\$200	<u>5</u>	<u>5</u>	<u>8</u>
Over \$200	<u>2</u>	<u>5</u>	<u>5</u>
Size of Largest Account	<u>\$715 million</u>		
Size of Smallest Account	<u>\$3 million</u>		

3) Describe any limitations the firm currently imposes or plans to impose regarding:

Number of Clients	10-15 accounts per portfolio manager.
Total assets under management	None
Maximum account size	None
Minimum account size	Not specified for corporate clients. For public fund clients, the minimum is \$100 million.

- 4) List the names, and the dollar sizes of firm's five largest fixed income accounts.

ATT	\$715 million
Illinois State Teachers	650 million
Illinois State Universities	350 million
Pension Benefit Guaranty Corp.	300 million
State of Kansas	220 million

- 5) Provide the names and sizes of all accounts greater than \$5 million that the firm lost in 1981, 1982 and 1983.

Firestone moved its fixed income assets to a dedicated portfolio. Fairchild Camera and Schlitz accounts were lost when the firms were acquired.

- 6) Describe firm's management fee schedule.

.50% - first \$25 million
.375% - next \$30 million
.250% - thereafter

- 7) Relevant information on past performance.

Performance data represents an equal-weighted average of all discretionary fixed income employee benefit accounts.

II. INVESTMENT PHILOSOPHY

- 1) Describe in broad terms the firm's overall fixed income investment management philosophy.

PIMCO places heavy emphasis on positioning its fixed income portfolios based upon its cyclical and secular interest rate forecasts. The firm believes that the majority of its value added is derived from successful maturity and sector selections. However, PIMCO avoids extreme interest rate bets by limiting the maximum and minimum duration of its portfolios and making maturity and sector moves gradually over the course of an interest rate cycle.

The firm focuses on the 3-5 year cyclical and secular trends in the economy and interest rates. PIMCO believes that cyclical trends are influenced by such factors as the business cycle, inflation, Fed policy, fiscal policy and international conditions. Secular trends, in turn, are affected by broad political and sociological factors, structural changes in financial intermediaries and changing risk and liquidity premiums.

Based upon these broad strategic considerations, the firm will adjust its maturity, coupon, quality and sectors to reflect the outlook over a 12-18 month horizon. In the past several years government issues and pass-throughs have dominated the portfolios. Recently the firm has begun to make extensive use of financial futures.

III. INVESTMENT MANAGEMENT PROCESS

- 1) Describe the firm's management style with respect to asset allocation.

PIMCO is an moderate asset allocator, willing to make sizable asset allocation moves over the course of an interest rate cycle. The firm tends to make 5-10% incremental moves in anticipation of near-term moves in interest rates.

- 2) List range of cash position of fixed income portfolio over last three years.

0-50%.

- 3) List the range of the average duration (or maturity if duration figures unavailable) of fixed income portfolio over last three years.

2-7 years.

- 3) Describe the firm's process for formulating, implementing and controlling fixed income investment strategy. In particular, discuss the subjects of economic analysis, interest rate forecasting and issue selection.

The PIMCO secular economic outlook is developed in a formal session which takes place annually. All of the firm's professionals gather in a retreat outside of the firm's offices. Various prominent individuals are invited to lecture the group on topics of current interest. Each of the firm's professionals has a responsibility to follow a specific economic subject on a regular basis. At the annual session, each professional makes verbal and written presentations on his/her particular area. From all of this discussion, the group formulates a set of secular economic scenarios and associated probabilities. While technically all of the firm's professionals have an equal voice in the group's decisions, the portfolio managers tend to dominate the scenario construction process.

PIMCO's cyclical economic forecast is developed by the same group on a quarterly basis, roughly in the same way as the secular outlook is formulated. (Although the group does not go to a retreat or bring in outside speakers at its quarterly meetings.) The firm's fixed income portfolio managers meet monthly as a group to refine portfolio strategy in light of current market developments. In addition, the portfolio managers meet daily on an informal basis to further discuss strategy.

Portfolio duration and minimum qualities are set by the secular-cyclical forecast group. Portfolio managers have roughly a half-year band around the duration target in which to place their portfolios. Beyond these restrictions, the portfolio managers have complete discretion regarding quality, sector, and issue selection. However, in practice, a quarterly performance review and the portfolio managers' frequent meetings tend to minimize the occurrence of significant deviations in portfolio composition among the managers. The portfolio managers' investment selections are based on the firm's secular and cyclical outlook, their own credit analysis, and the information provided by Wall Street sources.

Credit analysis is coordinated by one of the portfolio managers, but each portfolio manager does his/her own analysis. The primary emphasis is on avoiding negative surprises within the portfolios. Outside credit rating organizations' data are used to identify new developments, at which point the portfolio managers begin an analysis of potential dangers or opportunities.

- 4) Assuming the firm's managers have read the SBI's investment guidelines (i.e., restrictions concerning allowable investments and targets relating to risk and return), can they work under them?

The firm believes that the SBI's duration and quality constraints will present it with no serious impediments.

- 5) Will the SBI's account be managed on a separate basis? If not, explain?

Yes. The firm's portfolio managers have considerable discretion in constructing their portfolios. However, the composition of the portfolios across managers tends to be quite similar.

- 6) Assuming that the SBI's account is one of the larger that the firm will manage, does the firm anticipate any problems in absorbing the SBI's assets with respect to investment process, philosophy etc.?

Because PIMCO manages over \$4 billion in fixed income assets, it foresees no difficulty in taking on the SBI's account.

IV. ORGANIZATION CAPABILITIES

Fixed income research process

- 1) What are the firm's principle research and information sources?

PIMCO utilizes both internally generated credit research and Wall Street credit and economic research on roughly a 50-50 basis.

- 2) How does the firm focus fixed income research.

Given the firm's secular and cyclical economic forecasts and corresponding duration and minimum quality decisions, the portfolio managers identify attractive sectors and issues utilizing their own analysis and Wall Street research.

Trading

- 1) Give a description of the firm's trading operation.

The firm's fixed income portfolio managers do all of their own bond trading.

- 2) To what extent is the firm willing to allocate the commission dollars generated in the management of SBI assets to the SBI for its research purposes?

The firm is willing to make such arrangements with clients.

Communication

- 1) How does the firm communicate with clients?

Format and Frequency

Quarterly asset and transactions listing.
(monthly available if desired)
Quarterly strategy report.

Who in the organization would handle contact with the SBI?

The firm has a number of marketing representatives who are responsible for ongoing client contacts. The goal is to free the portfolio managers from the time consuming task of client contacts. PIMCO is willing to discuss making an exception for the SBI if it is desired to directly meet with the Board's portfolio manager.

Will the firm's account manager be available for periodic visits to the SBI's offices?

Yes, but see previous response.

V. FINANCIAL VIABILITY AND ETHICS

- 1) Provide a copy of the firm's most recent ADV II statement (to be attached to this report).
- 2) Describe any censure by the SEC or any litigation pending against the firm.

None.

- 3) Is the firm aware of any potential conflicts of interest in managing SBI assets?

No.

IV. MISCELLANEOUS

- 1) Does the firm envision utilizing financial futures in its management of the SBI's account. Explain

For several years, the firm has made extensive use of financial futures in those accounts which allow it. The firm occasionally uses futures as a market timing strategy. More often, however, PIMCO uses futures to expand the possible investment opportunities within a given duration range, by buying issues outside the range and offsetting interest rate risk with the futures.

- 2) Notify the firm that State Street Bank will be managing its cash reserves.

Done.

- 3) Does the firm have any significant objections to funding its SBI account out of the current SBI's current holdings?

No. However, PIMCO would plan to quickly dispose of those SBI holdings that it did not plan to retain.

Biographical Information

WILLIAM H. GROSS, C.F.A.

Managing Director

Mr. Gross joined the firm 13 years ago with experience encompassing both credit research and fixed income portfolio management. He is a managing director of the firm. He is a Chartered Financial Analyst, and a member of the firm's Investment Strategy Group. Mr. Gross received his Bachelor's Degree from Duke University and his MBA from UCLA Graduate School of Business.

CHRIS P. DIALYNAS

Principal

Mr. Dialynas joined the firm as a fixed income portfolio manager. He was previously associated with the Bank of America. He is a member of the Los Angeles Society of Financial Analysts. Mr. Dialynas holds a Bachelor's Degree from Pomona College and MBA in Finance from the University of Chicago.



Biographical Information

CLOSSON L. VAUGHAN
Vice President

Portfolio Manager

Mr. Vaughan joined the firm as a fixed income portfolio manager. He was previously associated with Lehman Management Company and Standard and Poor's Corporation. His 10 years of fixed income experience includes both credit research and portfolio management. Mr. Vaughan received his Bachelor's Degree with double majors in Finance and Economics from Rider College and his MBA in Finance from New York University Graduate School of Business.

RAYMOND F. PENTZ
Senior Vice President

Account Manager
Public Retirement Group

Mr. Pentz joined Pacific Investment Management Company to oversee account management for public retirement funds. He has 14 years of investment experience and prior to joining Pacific Investment Management Company, he was associated with Crocker Bank. He received his Bachelor's Degree in History from the University of Southern California and his Master's Degree in Business Economics from the Claremont Graduate School.



STATE OF MINNESOTA
EXTERNAL FIXED INCOME MANAGER INFORMATION

I. BACKGROUND DATA

- 1) Date of interview with Search Committee 2/16/84
- 2) Name of Firm: Rosenberg Capital Management
- 3) Address : Four Embarcadero Center
Suite 2900
San Francisco, CA 94111
- 4) Telephone : (415) 954-5474
- 5) Contact : E. Rust Muirhead (portfolio manager)
- 6) Date Business Commenced: 1970
- 7) Affiliation with other firms (i.e., parent management companies, insurance companies, brokerage firms, investment banking firms, or other entities): The owners of the firm also are general partners of the Rosenberg Real Estate Equity Fund, a manager closed-end commingled real estate funds.
- 8) Ownership : Rosenberg Capital Management is owned by 17 general partners.
- 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?

Investment Adviser

Personnel

- 1) Number of Investment Department personnel: 9
- 2) Number of fixed income portfolio managers: 3
- 3) Number of full-time fixed income security analysts : 3
- 4) Does firm have an in-house bond trader : No
- 5) Number of portfolio managers and investment analysts added in:
 past three years 2
- 6) Number of portfolio managers and investment analysts which have left firm in:
 past three years 0 their initiative 0 firm's initiative 0
- 7) Elaboration on answers to questions #5 and #6.

In the past three years, support staff has been added in the analytical systems area.

- 8) Experience of fixed income investment personnel:

NUMBER OF YEAPS

	<u>Average</u>	<u>Low</u>	<u>High</u>
Portfolio Managers	<u>14</u>	<u>8</u>	<u>20</u>
Security Analysts	<u>4</u>	<u>2</u>	<u>6</u>

- 9) Average number of accounts per manager: All accounts are managed on a joint basis.
 Limit on number of accounts per manager : _____
- 10) Biographical data on key investment personnel, including education and work experience (attached to this report).

- 11) Describe the firm's financial incentives for investment managers.

The portfolio managers are partners in the firm and thus share in its profits. In addition, portfolio managers may receive bonuses based on the senior partners' subjective rating of their contribution to the firm.

- 12) Identify the member(s) of the firm who would most likely be directly responsible for managing the SBI's account.

E. Rust Muirhead
Jeffrey Rudsten
Gary Schreyer

The three fixed income portfolio managers, handle all accounts jointly.

- 13) How many accounts and total dollars does he (they) currently manage?

Forty-four accounts valued at roughly \$1.3 billion. However, 20 of these accounts (\$220 million) represent the fixed income portion of balanced accounts. These accounts require practically no client contact time on the part of the fixed income managers.

- 14) Describe firm's experience with managing the money of public funds.

RCM has had no experience managing public fund fixed income assets. Generally, public fund constraints on loss selling of bonds has made such accounts difficult to manage. This would not be a problem with the SBI's account. RCM does manage an equity account for the State of Oregon.

Client Base

1) For accounts under management as of December 31, 1983 provide the following information:

<u>Accounts</u>	<u>Number</u>	<u>(market value in millions)</u> <u>Total</u>	<u>Assets</u> <u>Stocks</u>	<u>Bonds</u>	<u>Cash</u>	<u>Percent</u> <u>of Total</u> <u>Assets Fully</u> <u>Discretionary</u>
Total	79	\$4,540	\$2,780	\$995	\$765	100%
Fixed Income only	24	\$1,018	XXX	\$775	\$263	100%

2) Account breakdown by number of fixed income accounts:

	<u>12-31-81</u>	<u>12-31-82</u>	<u>12-31-83</u>
Under \$10 million	<u>4</u>	<u>1</u>	<u>1</u>
\$10-\$50	<u>13</u>	<u>18</u>	<u>16</u>
\$50-\$100	<u>1</u>	<u>2</u>	<u>5</u>
\$100-\$200	<u>1</u>	<u>2</u>	<u>2</u>
Over \$200	<u>0</u>	<u>0</u>	<u>0</u>
Size of Largest Account		<u>\$140 million</u>	
Size of Smallest Account		<u>\$7 million</u>	

3) Describe any limitations the firm currently imposes or plans to impose regarding:

Number of Clients	None
Total assets under management	None
Maximum account size	\$175-200 million
Minimum account size	\$20 million

- 4) List the names, and the dollar sizes of firm's five largest fixed income accounts.

Stanford University	\$140 million
Armco	80 million
Rockefeller Foundation	80 million
United Presbyterian Foundation	70 million
International Monetary Fund	50 million
Metropolitan Museum	50 million

- 5) Provide the names and sizes of all accounts greater than \$5 million that the firm lost in 1981, 1982 and 1983.

Midland Ross-internal financial problems.
Green Giant-acquired
Interstate Brand-all managers removed as pension fund assets moved inhouse.

- 6) Describe firm's management fee schedule.

.50% - first \$10 million
.30% - thereafter

- 7) Relevant information on past performance.

Performance data represents an equal-weighted average of all discretionary fixed income and fixed income portions of balanced tax-exempt accounts.

II. INVESTMENT PHILOSOPHY

- 1) Describe in broad terms the firm's overall fixed income investment management philosophy.

Rosenberg Capital Management concentrates on the attainment of consistent real rates of return. The firm avoids aggressive fixed income management strategies, preferring to limit its long maturity, quality and sector bets. The firm accepts the fact that it will not be a top performing manager in bull markets. However, it believes that its emphasis on moderate strategies will allow it to outperform over the longer-term, particularly in an environment of frequently recurring bear markets.

RCM believes that the majority of its value-added is derived from the accurate anticipation of interest rate movements. However, rather than merely adjust maturity levels to take advantage of the expected change in rates, the firm prefers to combine shifts between short and intermediate maturities with a formal quantitative analysis of the impact of its interest rate scenarios on particular sectors and issues. This analysis is conducted through a proprietary valuation model. In periods of interest rate volatility, RCM will tend to emphasize portfolio maturity shifts. In less volatile periods, the firm's turns to sector and issue selection. The firm is willing to hold a wide array of types and qualities of bonds.

III. INVESTMENT MANAGEMENT PROCESS

- 1) Describe the firm's management style with respect to asset allocation.

RCM is an active asset allocator, willing to make significant movements into and out of cash over the short run. The firm's asset mix decisions are keyed to its twelve-month horizon interest rate outlook and the attractiveness of bonds relative to cash as calculated by the firm's debt securities valuation model.

- 2) List range of cash position of fixed income portfolio over last three years.

5-60%.

- 3) List the range of the average duration (or maturity if duration figures unavailable) of fixed income portfolio over last three years.

1.5-7 years, with an average of roughly four years over an interest rate cycle.

- 3) Describe the firm's process for formulating, implementing and controlling fixed income investment strategy. In particular, discuss the subjects of economic analysis, interest rate forecasting and issue selection.

The RCM equity and fixed income groups meet weekly as a team to discuss those economic, political and social trends which currently are impacting the financial markets. Utilizing ideas from this discussion, the fixed income portfolio managers have primary responsibility for formulating and revising the firm's interest rate forecasts.

The fixed income managers develop three (best case, worst case, base case) interest rate scenarios and attach subjective probabilities. In turn, these scenarios are used to construct three possible yield curve projections. (Wall Street forecasts may be utilized occasionally to identify the consensus view, but primarily RCM internal macroeconomic research is employed in the process of interest rate forecasting). The yield curve projections are updated frequently over a quarter.

Given the yield curve projections and associated probabilities, the portfolio managers jointly select the firm's desired portfolio maturity targets. Then, utilizing a proprietary debt securities valuation model, the total returns on all bonds in the RCM universe are calculated under each yield curve scenario. An expected return for each bond is calculated. Risk is considered to be a bond's dispersion of possible returns.

The valuation model employs data on each bond's credit rating, marketability, call features, and current spread over Treasuries. Once each bond's expected return and risk is calculated, specific qualities, sectors and individual issues which offer attractive risk-return opportunities are identified. The model's recommendations are manipulated subjectively by the portfolio managers to construct actual portfolios.

A separate credit analysis model is run on issues currently in the portfolio or under consideration as purchases. The purpose of the model is to identify suspect credits and thus avoid negative surprises. The model does attempt to anticipate credit rating changes.

- 4) Assuming the firm's managers have read the SBI's investment guidelines (i.e., restrictions concerning allowable investments and targets relating to risk and return), can they work under them?

RCM will often tend to hold portfolios at the short end which have a lower duration than specified by the SBI's guidelines. However, the firm believes that it can adapt to the SBI's guidelines without seriously hampering its investment style.

- 5) Will the SBI's account be managed on a separate basis? If not, explain?

Yes. However, all portfolios, subject to client restrictions, are managed in a similar manner.

- 6) Assuming that the SBI's account is one of the larger that the firm will manage, does the firm anticipate any problems in absorbing the SBI's assets with respect to investment process, philosophy etc.?

Given that RCM managed almost \$1.3 billion in fixed income assets, it sees no difficulty in taking on the SBI's account.

IV. ORGANIZATION CAPABILITIES

Fixed income research process

- 1) What are the firm's principle research and information sources?

Data Resources macroeconomic forecasting model and database are used by RCM in constructing its economic scenarios.

Wall Street economic and fixed income research is used to identify the market's consensus outlook.

- 2) How does the firm focus fixed income research.

The firm's proprietary debt securities valuation model identifies qualities, sectors, and specific issues which offer attractive risk-return characteristics. The model's recommendations are then reviewed by the portfolio managers for potential implementation.

Trading

- 1) Give a description of the firm's trading operation.

The firm's portfolio managers do all of the fixed income trading.

- 2) To what extent is the firm willing to allocate the commission dollars generated in the management of SBI assets to the SBI for its research purposes?

The firm is willing to direct commissions at the request of the SBI.

Communication

- 1) How does the firm communicate with clients?

Format and Frequency

Monthly listings of assets and transactions.
Quarterly investment strategy reports.
Telephone calls upon major shifts in strategy.

Who in the organization would handle contact with the SBI?

One of the fixed income portfolio managers: Rust Muirhead,
Jeffrey Rudsten, or Gary Schreyer.

Will the firm's account manager be available for periodic
visits to the SBI's offices?

Yes.

V. FINANCIAL VIABILITY AND ETHICS

- 1) Provide a copy of the firm's most recent ADV II statement
(to be attached to this report).
- 2) Describe any censure by the SEC or any litigation pending
against the firm.

None.

- 3) Is the firm aware of any potential conflicts of interest
in managing SBI assets?

No.

IV. MISCELLANEOUS

- 1) Does the firm envision utilizing financial futures in its management of the SBI's account. Explain

The firm is just completing extensive studies into the use of futures. It proposes, in the near future, to offer synthetic securities construction strategies to its clients utilizing futures.

- 2) Notify the firm that State Street Bank will be managing its cash reserves.

Done.

- 3) Does the firm have any significant objections to funding its SBI account out of the current SBI's current holdings?

No. RCM would plan to slowly adjust the SBI's current portfolio to its eventual desired composition.

E. Rust Muirhead, President of E. R. Muirhead, Inc., a General Partner since April of 1982, became a Principal of RCM in January, 1977. A graduate of Trinity College in 1976, he began his business career with Pacific National Bank. He resigned as an officer of the bank in 1964 to accept a position with Heber-Fuger-Wendin, a Detroit investment counseling firm with approximately \$2 billion assets under management. There he was responsible for the management of client bank portfolios totalling over \$400 million. In 1969 he became a Vice President and Director of H-F-W, and shortly afterward was made head of its Fixed-Income Department. Additionally, his responsibilities included the active management of approximately \$200 million in corporate bonds and co-responsibility as consultant to the Treasury Department of the Commonwealth of Puerto Rico. He joined RCM in 1974 and is a member of the Fixed-Income Portfolio Management Team.

Gary W. Schreyer, C.F.A., President of Gary W. Schreyer, Inc., a General Partner since April of 1982, became a Principal of RCM in January, 1977. He received his B.A. and M.B.A. from the University of California at Berkeley, and in 1969 joined the Chase Manhattan Bank in New York City, where he was responsible for the design and implementation of computerized investment research applications. He subsequently worked as a portfolio consultant for the investment counseling firm of Scudder, Stevens & Clark, Inc., where he was involved in managing debt and equity portfolios. In 1972 he became Senior Investment Officer with the Bank of America, and was responsible for more than \$450 million of fixed-income investments. In addition, he is a member of the bank's Turst Real Estate Investment Committee. He joined RCM in 1975; he is a member of the Fixed-Income Portfolio Management Team and plays a key role in the firm's economic analysis capability. Presently he is a member of the Security Analysts of San Francisco, the American Economic Association, and the American Finance Association.

Jeffrey S. Rudsten received his B.A. from the University of Massachusetts and M.B.A. from the University of Chicago. After graduation in 1973, he joined Citibank in New York City, where he gained extensive knowledge of credit analysis. Later he assumed responsibilities in the National Banking Group, which included originating, structuring and managing loans to large domestic corporations. He subsequently was associated with Goldman Sachs, where he traded fixed-income securities. In 1976 he accepted a position with First Boston Corporation as institutional bond salesman, with responsibility for large financial institutions. He joined RCM in 1978, and became a General Partner in January, 1981. As a member of the Fixed-Income Portfolio Management Team, his responsibilities include the creation and implementation of bond portfolio strategy.

STATE OF MINNESOTA
EXTERNAL FIXED INCOME MANAGER INFORMATION

I. BACKGROUND DATA

- 1) Date of interview with Search Committee 2/2/84
- 2) Name of Firm: T. Rowe Price Associates
- 3) Address : 100 East Pratt Street
Baltimore, MD 21202
- 4) Telephone : (301) 547-2167
- 5) Contact : Eugene Waldron (marketing rep.)
- 6) Date Business Commenced: 1937
- 7) Affiliation with other firms (i.e., parent management companies, insurance companies, brokerage firms, investment banking firms, or other entities): None
- 8) Ownership : The firm is privately held and is owned by
approximately 100 current and recently retired employees and
their families.
- 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?

Investment Adviser

Personnel

- 1) Number of Investment Department personnel: 51
- 2) Number of fixed income portfolio managers: 7
- 3) Number of full-time fixed income security analysts : 5
- 4) Does firm have an in-house bond trader : Yes, 5
- 5) Number of portfolio managers and investment analysts added in:
 past three years 4
- 6) Number of portfolio managers and investment analysts which have left firm in:
 past three years 0 their initiative 0 firm's initiative 0
- 7) Elaboration on answers to questions #5 and #6.

T. Rowe Price has had no turnover in its professional ranks over the last three years.

- 8) Experience of fixed income investment personnel:

	<u>NUMBER OF YEARS</u>		
	<u>Average</u>	<u>Low</u>	<u>High</u>
Portfolio Managers	<u>14</u>	<u>13</u>	<u>16</u>
Security Analysts	<u>8</u>	<u>3</u>	<u>15</u>

- 9) Average number of accounts per manager: 12
- Limit on number of accounts per manager : 15-20

- 10) Biographical data on key investment personnel, including education and work experience (attached to this report).

- 11) Describe the firm's financial incentives for investment managers.

Portfolio manager compensation is a function of a system of salaries, profit sharing, and potential ownership in the firm.

- 12) Identify the member(s) of the firm who would most likely be directly responsible for managing the SBI's account.

Ed Tabor would head a team of portfolio managers, among whose accounts would be the SBI's. The particular portfolio manager who would be assigned the SBI's account has not yet been determined.

- 13) How many accounts and total dollars does he (they) currently manage?

Ed Tabor's team currently manages 13 accounts valued at \$700 million. In addition, Tabor is a joint manager of T. Rowe Prices' money market fund.

- 14) Describe firm's experience with managing the money of public funds.

Illinois Teachers
Indiana Public Employees
State of Delaware
Maryland National Parks and Planning
Baltimore City Public Employees
Dallas Police and Fire
Washington D.C. Public Employees

Client Base

1) For accounts under management as of December 31, 1983 provide the following information:

<u>Accounts</u>	<u>Number</u>	<u>Assets (market value in millions)</u>			<u>Percent of Total Assets Fully Discretionary</u>	
		<u>Total</u>	<u>Stocks</u>	<u>Bonds</u>		<u>Cash</u>
Total*	179	\$7,445	\$4,440	\$1,395	\$1,610	85%
Fixed**						
Income only	84	6,184	XXX	2,015	4,169	

*Separately managed accounts, no mutual funds.

**Includes firm's three tax-exempt, fixed income mutual funds.

2) Account breakdown by number of fixed income accounts:

	<u>12-31-81</u>	<u>12-31-82</u>	<u>12-31-83</u>
Under \$10 million	<u>50</u>	<u>41</u>	<u>42</u>
\$10-\$50	<u>23</u>	<u>30</u>	<u>25</u>
\$50-\$100	<u>3</u>	<u>5</u>	<u>10</u>
\$100-\$200	<u>1</u>	<u>1</u>	<u>2</u>
Over \$200	<u>1</u>	<u>2</u>	<u>2</u>
Size of Largest Account		<u>\$410 million</u>	
Size of Smallest Account		<u>\$5 million</u>	

3) Describe any limitations the firm currently imposes or plans to impose regarding:

Number of Clients	None.
Total assets under management	None.
Maximum account size	None.
Minimum account size	\$5 million.

- 4) List the names, and the dollar sizes of firm's five largest fixed income accounts.

Illinois Teachers	\$410 million
U.S. West	\$175 million
Indiana Public Employees	\$130 million
Washington D.C. Public Employees	\$88 million
Martin Marietta	\$75 million

- 5) Provide the names and sizes of all accounts greater than \$5 million that the firm lost in 1981, 1982 and 1983.

AMAX, a \$20 million client was lost as an account on the basis of dissatisfaction with performance.

- 6) Describe firm's management fee schedule.

.50%	- first \$5 million
.40%	- next \$5 million
.275%	next \$15 million
.225%	next \$25 million
.170%	thereafter

- 7) Relevant information on past performance.

Performance results represent the returns on the New Income Fund, an intermediate-term oriented fixed income mutual fund.

II. INVESTMENT PHILOSOPHY

- 1) Describe in broad terms the firm's overall fixed income investment management philosophy.

T. Rowe Price believes that continued inflation is inevitable, given the nature of the U.S. political and socio-economic systems. As a result, the firm also believes that long-term fixed rate bonds, if held to maturity, will not produce real returns over the bonds' life. In response to the debilitating effect of inflation, the firm's investment approach focuses on two aspects: 1) successful maturity selection to take advantage of cyclical movements in interest rates; 2) high current income to capture fixed income returns as early as possible.

T. Rowe Prices' investment style is conservative, emphasizing low volatility, positive annual returns in all markets but foregoing maximum returns in bull markets. The firm tends to diversify across qualities and sectors. Issue selection is considered secondary to successful interest rate anticipation. Maturities generally concentrate in the short to intermediate term end of the yield curve.

III. INVESTMENT MANAGEMENT PROCESS

- 1) Describe the firm's management style with respect to asset allocation.

T. Rowe Price is willing to make moderate (roughly 5% at a time) asset mix moves in the short-run in response to expected near-term movements in interest rates. Significant asset mix moves tend to be made gradually over the course of the interest rate cycle.

- 2) List range of cash position of fixed income portfolio over last three years.

5-85%

- 3) List the range of the average duration (or maturity if duration figures unavailable) of fixed income portfolio over last three years.

2.5-7.5 years

- 3) Describe the firm's process for formulating, implementing and controlling fixed income investment strategy. In particular, discuss the subjects of economic analysis, interest rate forecasting and issue selection.

T. Rowe Price's fixed income portfolio managers, credit analysts, traders, and the firm's two staff economists meet twice a month to review and modify the firm's fixed income strategy. Primary emphasis is placed upon interest rate forecasting and thus analyzing those macroeconomic factors affecting the interest rate outlook. "Fed watching" is given a top priority. Based on this discussion, maturity, quality and sector targets are set for the portfolios. The firm's three senior fixed income portfolio managers and economists have the final say in these strategy decisions.

Bond portfolios are managed by one of two teams consisting of a senior portfolio manager, several portfolio managers, credit analyst and trader. Each account is assigned to a specific portfolio manager. Weekly meetings are held among all fixed income personnel to discuss current market conditions and short-term strategies. The portfolio managers must follow the maturity, quality, and sector targets set by the strategy committee. The portfolio managers have discretion only in selecting individual issues. These, further, must be chosen from an approved credit list developed by the credit department.

The credit department does all its own credit analysis. Using Compustat data, the credit analysts compare a company's financial data within peer groups and against the company's trend. Company visits are occasionally undertaken to confirm the credit analysis. The goal of the credit work is to protect against unpleasant surprises and to identify underrated issues.

- 4) Assuming the firm's managers have read the SBI's investment guidelines (i.e., restrictions concerning allowable investments and targets relating to risk and return), can they work under them?

The firm believes that its investment style is highly compatible with the SBI's quality and duration guidelines.

- 5) Will the SBI's account be managed on a separate basis? If not, explain?

Yes. The management of the firm's accounts varies according to the firm's perception regarding the clients' risk-return preferences.

- 6) Assuming that the SBI's account is one of the larger that the firm will manage, does the firm anticipate any problems in absorbing the SBI's assets with respect to investment process, philosophy etc.?

Since T. Rowe Price manages roughly \$9 billion in fixed income money, the firm expects no difficulty in taking on the SBI's account.

IV. ORGANIZATION CAPABILITIES

Fixed income research process

- 1) What are the firm's principle research and information sources?

Most of T. Rowe Price's economic and credit research is internally generated.

- 2) How does the firm focus fixed income research.

The credit research group develops a list of acceptable credit candidates. That list, combined with the firm's current maturity, quality, and sector strategies, determines the range of investment choices available to the portfolio managers.

Trading

- 1) Give a description of the firm's trading operation.

The firm has a fully staffed fixed income trading desk consisting of five full time traders. Within 5% bands around a price target set by the portfolio managers, the traders are given discretion to complete the trades. Occasionally, portfolio managers will conduct trading themselves.

- 2) To what extent is the firm willing to allocate the commission dollars generated in the management of SBI assets to the SBI for its research purposes?

Yes, the firm has similar arrangements with other clients.

Communication

- 1) How does the firm communicate with clients?

Format and Frequency

Monthly holdings report
Monthly strategy papers
Weekly fixed income market outlook summary

Who in the organization would handle contact with the SBI?

Ed Tabor

Will the firm's account manager be available for periodic visits to the SBI's offices?

Yes.

V. FINANCIAL VIABILITY AND ETHICS

- 1) Provide a copy of the firm's most recent ADV II statement (to be attached to this report).
- 2) Describe any censure by the SEC or any litigation pending against the firm.

T. Rowe Price is currently in litigation regarding alleged violations of certain provisions of the Investment Company Act of 1940. The action seeks recovery of a portion of the advisory fees in an unspecified amount charged the T. Rowe Price Prime Reserve Fund by Price Associates and seeks injunctive relief with respect to the continuation of Price Associates agreement with the Fund. Price Associates has filed an answer denying all material allegations.

- 3) Is the firm of any potential conflicts of interest in managing SBI assets?

No.

IV. MISCELLANEOUS

- 1) Does the firm envision utilizing financial futures in its management of the SBI's account. Explain

The firm has used financial futures in the past as a hedging tool at the specific request of clients. Generally, however, T. Rowe Price believes that the use of futures to hedge is unnecessary given the defensive nature of its investment style.

- 2) Notify the firm that State Street Bank will be managing its cash reserves.

Done.

- 3) Does the firm have any significant objections to funding its SBI account out of the current SBI's current holdings?

No.

T. ROWE PRICE ASSOCIATES' BIOGRAPHICAL DATA

GEORGE J. COLLINS

George Collins is a vice president and director of T. Rowe Price Associates, director of the Fixed Income Division, and a member of the Management Committee. He is a director of the five T. Rowe Price Fixed Income Funds and holds several positions as an officer for these Funds. Prior to joining the firm in 1971, George was employed by the United States Fidelity and Guaranty Company for three years as a bond portfolio manager and senior security analyst. He earned a B.A. from Virginia Military Institute, and an M.B.A. with distinction in finance from the American University School of Business. In addition, George completed the Stanford University Executive Program in 1982.

EDWARD A. TABER, III

Ed Taber, a vice president and director of T. Rowe Price Associates, joined the firm in 1973. He is a senior fixed income portfolio manager and the assistant director of the Fixed Income Division. Ed serves as president and director of the T. Rowe Price Prime Reserve Fund and T. Rowe Price U.S. Treasury Money Fund, and is vice president of the T. Rowe Price New Income Fund. He was employed for two years as vice president-treasurer of the Federal Home Loan Bank of Boston. Ed earned an A.B. in economics from Dartmouth College and an M.B.A. from Harvard Business School.

BEN E. LADEN, Ph.D.

Ben E. Laden, vice president and chief economist of T. Rowe Price Associates, joined the firm in 1974. Previously, he was an economist with the Federal Reserve Board, doing research in inflation analysis. From 1967 to 1971, he served on the faculty of Ohio State University. Ben earned an A.B. in mathematics from Princeton University and a Ph.D. in economics from The Johns Hopkins University. His work has appeared in such professional journals as Trusts and Estates, The Financial Planner, The Review of Economics and Statistics, and The Quarterly Review of Economics. Ben is currently the vice president of the National Association of Business Economists, a member of the Board of Directors of the National Economists Club and a member of the Professional Advisory Council of the University of Maryland Business School.

PAUL W. BOLTZ

Paul Boltz, a vice president and financial economist, joined T. Rowe Price Associates in 1983. He was previously employed for two years by Continental Bank as the vice president of capital market research. Prior to this position, Paul was employed for eight years by the Federal Reserve Board and also served one year as a staff economist for the Council of Economic Advisers, Executive Office of the President. He earned a B.A., economics, from the University of Maryland, and a Ph.D. from the University of Illinois.

STATE OF MINNESOTA
EXTERNAL FIXED INCOME MANAGER INFORMATION

I. BACKGROUND DATA

- 1) Date of interview with Search Committee 2/16/84
- 2) Name of Firm: Wentworth, Hauser and Violich
- 3) Address : 333 Sacramento Street
San Francisco, CA 94111
- 4) Telephone : (415) 981-6911
- 5) Contact : Bradford Hall (marketing rep.)
- 6) Date Business Commenced: 1937
- 7) Affiliation with other firms (i.e., parent management companies, insurance companies, brokerage firms, investment banking firms, or other entities): None
- 8) Ownership : The firm is owned by several active and retired investment professionals within the firm.
- 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?

Investment Adviser

Personnel

- 1) Number of Investment Department personnel: 23
- 2) Number of fixed income portfolio managers: 2
- 3) Number of full-time fixed income security analysts : 0
- 4) Does firm have an in-house bond trader : Yes
- 5) Number of portfolio managers and investment analysts added in:
 past three years 2
- 6) Number of portfolio managers and investment analysts which have left firm in:
 past three years 0 their initiative 0 firm's initiative 0
- 7) Elaboration on answers to questions #5 and #6.

- 8) Experience of fixed income investment personnel:

NUMBER OF YEARS

	<u>Average</u>	<u>Low</u>	<u>High</u>
Portfolio Managers	<u>34</u>	<u>22</u>	<u>46</u>
Security Analysts	<u>--</u>	<u>--</u>	<u>--</u>

- 9) Average number of accounts per manager: 10
 Limit on number of accounts per manager : All accounts are managed jointly.
- 10) Biographical data on key investment personnel, including education and work experience (attached to this report).

- 11) Describe the firm's financial incentives for investment managers.

All of the firm's portfolio managers are owners of the firm and thus share in its profits, in addition to their salaries.

- 12) Identify the member(s) of the firm who would most likely be directly responsible for managing the SBI's account.

Paul Volich and Richard de Garcia jointly manage all of the firm's fixed income accounts.

- 13) How many accounts and total dollars does he (they) currently manage?

Twenty-one accounts valued at approximately \$600 million.

- 14) Describe firm's experience with managing the money of public funds.

State of Hawaii
State of Mississippi
Kern County
San Bernadino County

Client Base

- 1) For accounts under management as of December 31, 1983 provide the following information:

<u>Accounts</u>	<u>Number</u>	<u>(market value in millions)</u> <u>Total</u>	<u>Assets</u> <u>Stocks</u>	<u>Bonds</u>	<u>Cash</u>	<u>Percent</u> <u>of Total</u> <u>Assets Fully</u> <u>Discretionary</u>
Total	211	\$1,265	\$463	\$723	\$42	100%
Fixed Income only	21	\$598	XXX	\$576	\$15	100%

- 2) Account breakdown by number of fixed income accounts:

	<u>12-31-81</u>	<u>12-31-82</u>	<u>12-31-83</u>
Under \$10 million	<u>4</u>	<u>4</u>	<u>5</u>
\$10-\$50	<u>1</u>	<u>5</u>	<u>12</u>
\$50-\$100	<u></u>	<u>1</u>	<u>2</u>
\$100-\$200	<u></u>	<u></u>	<u>1</u>
Over \$200	<u></u>	<u></u>	<u></u>
Size of Largest Account		<u>\$180 million</u>	
Size of Smallest Account		<u>\$1.5 million</u>	

- 3) Describe any limitations the firm currently imposes or plans to impose regarding:

Number of Clients	None
Total assets under management	None
Maximum account size	None
Minimum account size	\$10 million fixed income \$3 million equity

- 4) List the names, and the dollar sizes of firm's five largest fixed income accounts.

State of Mississippi	\$180 million
Kern County	70 million
State of Hawaii	60 million
San Bernadino County	40 million
Air Products	35 million

- 5) Provide the names and sizes of all accounts greater than \$5 million that the firm lost in 1981, 1982 and 1983.

Wisconsin Steel-entered bankruptcy.
International Harvester-moved all pension fund assets to GIC's.

- 6) Describe firm's management fee schedule.

.375% - first \$10 million
.25% - thereafter.

- 7) Relevant information on past performance.

Performance results represent an equal-weighted average of all discretionary fixed income employee benefit accounts.

II. INVESTMENT PHILOSOPHY

- 1) Describe in broad terms the firm's overall fixed income investment management philosophy.

Wentworth's investment approach is predicated almost entirely upon forecasting the interest rate cycle. The firm aims to achieve limited principal risk, low volatility, consistent returns. It believes that this goal is most effectively achieved by buying bonds at the peak of the interest rate cycle and structuring the portfolio to mature near the anticipated trough. Maximum portfolio maturities are limited by the firm's expectations regarding the length of the cycle. While maturities are structured to occur over the entire course of the cycle, they are concentrated at the anticipated trough. Once the perceived trough is actually achieved, the remaining bonds are liquidated and short maturities are held until the next peak in rates.

Sector, quality, and issue decisions are of decidedly secondary importance to Wentworth's investment strategy. As rates peak, the firm will move up to 50% of its portfolio into corporates and lower quality (A minimum) to capture increased spreads. At rate troughs the firm will move to government issues. The coupons of bonds purchased are also a function of their maturity structure relative to the firm's expectations of inflection points in the interest rate cycle. As the portfolio is restructured based upon an expected peak in rates, early maturing purchases are deep discount issues (including zero coupon bonds), while later maturing issues will have higher coupons.

Portfolio turnover tends to be high at expected inflection points in the interest rate cycle and relatively low in intervening periods. The firm does almost no swapping to pick up higher yields at a given point in time.

III. INVESTMENT MANAGEMENT PROCESS

- 1) Describe the firm's management style with respect to asset allocation.

Over the short-run, the firm is not an active asset allocator. However, over the course of an interest rate cycle, the firm will make significant moves gradually into and out of cash.

- 2) List range of cash position of fixed income portfolio over last three years.

0-55%.

- 3) List the range of the average duration (or maturity if duration figures unavailable) of fixed income portfolio over last three years.

1.75-3.5 years.

- 3) Describe the firm's process for formulating, implementing and controlling fixed income investment strategy. In particular, discuss the subjects of economic analysis, interest rate forecasting and issue selection.

Wentworth's Policy Committee, composed of its equity and fixed income portfolio managers, meets twice a month to update its economic and interest rate cycle forecasts. Based upon its discussions, the Committee arrives at a consensus decision regarding the structuring of maturities within the fixed income portfolio.

Employing the Policy Committee's maturity structure decisions, the firm's fixed income portfolio manager and head trader make quality, sector, issue and coupon decisions consonant with the interest rate cycle outlook.

Little security analysis is conducted. The portfolio manager generally selects issues from either the government market or from roughly 100 large corporate issuers. The firm requires that corporate issuers maintain an interest coverage of at least 1.75X. This coverage is checked by a research assistant internally on a quarterly basis. Beyond that the criteria, however, if the firm is buying corporates, it seeks to select the highest yielding issues consistent with its quality, sector and coupon strategies.

- 4) Assuming the firm's managers have read the SBI's investment guidelines (i.e., restrictions concerning allowable investments and targets relating to risk and return), can they work under them?

Wentworth believes that the SBI's duration guidelines would be a severe hinderance to its investment style. The firm believes that it would not likely be able to implement effectively its interest rate cycle strategies under the SBI guidelines.

- 5) Will the SBI's account be managed on a separate basis? If not, explain?

Yes, but subject to client restrictions, all accounts are managed on a similar basis.

- 6) Assuming that the SBI's account is one of the larger that the firm will manage, does the firm anticipate any problems in absorbing the SBI's assets with respect to investment process, philosophy etc.?

The firm believes that the SBI's account could be taken on without adversely affecting its investment approach.

IV. ORGANIZATION CAPABILITIES

Fixed income research process

- 1) What are the firm's principle research and information sources?

Wentworth's primary research sources are various economic forecasting organizations such as the Conference Board.

Data from external credit rating agencies is also utilized.

- 2) How does the firm focus fixed income research.

Utilizing the forecasts of various macroeconomic analysis groups, the firm attempts to identify the inflection points in the interest rate cycle and structure its portfolio accordingly.

Trading

- 1) Give a description of the firm's trading operation.

Wentworth has a full time trader who handles most of the firm's fixed income trading and who is active in setting fixed income strategy.

- 2) To what extent is the firm willing to allocate the commission dollars generated in the management of SBI assets to the SBI for its research purposes?

Given the firm's preference for Treasuries and secondary corporate issues, few commissions will be available to direct.

Communication

- 1) How does the firm communicate with clients?

Format and Frequency

Monthly asset listings.

Who in the organization would handle contact with the SBI?

Paul Volich

Will the firm's account manager be available for periodic visits to the SBI's offices?

Yes, the firm prefers semi-annual meetings with its clients.

V. FINANCIAL VIABILITY AND ETHICS

- 1) Provide a copy of the firm's most recent ADV II statement (to be attached to this report).
- 2) Describe any censure by the SEC or any litigation pending against the firm.

None.

- 3) Is the firm aware of any potential conflicts of interest in managing SBI assets?

No.

IV. MISCELLANEOUS

- 1) Does the firm envision utilizing financial futures in its management of the SBI's account. Explain

Wentworth does not currently use, or plan to use, financial futures.

- 2) Notify the firm that State Street Bank will be managing its cash reserves.

Done.

- 3) Does the firm have any significant objections to funding its SBI account out of the current SBI's current holdings?

No.

BIOGRAPHIES

Paul A. Violich, CFA, CIC

*Chairman of the Board of Directors, Secretary, and Portfolio Manager
Stanford University: BA 1957, MBA 1962*

Mr. Violich entered the investment management profession in 1962 when he joined Brundage, Story and Rose in New York City. He joined Wentworth, Hauser and Violich in 1966. Mr. Violich devotes his time to economic and corporate research and portfolio management. He was awarded the Chartered Investment Counsel designation by the Investment Counsel Association in 1976 and became a Chartered Financial Analyst in 1979.

*Director of the Security Analysts of San Francisco;
Member of the New York Society of Security Analysts;
Member of the Institute of Chartered Financial Analysts.*

Richard F. de Graca

Vice President, Treasurer, and Portfolio Manager

Mr. de Graca has been in the investment securities profession since 1937, when he joined the investment banking firm of Blyth & Co., Inc., in San Francisco, and gained wide experience during the next fifteen years, not counting four years with the Air Force during World War II. In 1958 he joined the international investment banking firm White, Weld & Company, Inc. where he held a variety of responsibilities over twelve years and was a Vice President. A veteran of securities research, portfolio management and fixed-income securities management, he joined Wentworth, Hauser and Violich in 1970 and today is engaged in money market and bond research and portfolio management.

Past President of the Municipal Bond Club of San Francisco (1966-1967); Member of the San Francisco Bond Club; Member of the Security Analysts of San Francisco.

Bradford Hall

*Vice President - Administration
Wichita State University: BA 1951*

Upon graduation Mr. Hall served in the Air Force as a pilot. In 1955 he entered commercial banking, where he became a Vice President in charge of a lending division of Security Pacific National Bank. From 1969 to 1971 he was Vice President, Corporate Finance for the securities brokerage firm of Glore Forgan Staats, and from 1972 to 1977 he was an officer and stockholder of the Trust Company of the West, where he was responsible for marketing and account administration. He joined Wentworth, Hauser and Violich in 1977.

STATE OF MINNESOTA
EXTERNAL FIXED INCOME MANAGER INFORMATION

I. BACKGROUND DATA

- 1) Date of interview with Search Committee 2/15/84
- 2) Name of Firm: Western Asset Management
- 3) Address : 707 Wilshire Boulevard
Los Angeles, CA 90017
- 4) Telephone : (213) 614-3156
- 5) Contact : Win Neuger (portfolio manager)
- 6) Date Business Commenced: 1971
- 7) Affiliation with other firms (i.e., parent management companies, insurance companies, brokerage firms, investment banking firms, or other entities): Western Asset Management is a wholly-
owned subsidiary of First Interstate Bancorporation.
- 8) Ownership : First Interstate Bancorporation is a publicly-
held, California-based bank holding company.
- 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?

Investment Adviser

Western Asset Management (WAM) has moved equity management to a separate subsidiary of First Interstate Investment Services. At the same time, First Interstate acquired two independent equity management firms. As a result, WAM now manages fixed income portfolios only and is First Interstate's sole bond manager.

Personnel

- 1) Number of Investment Department personnel: 11
- 2) Number of fixed income portfolio managers: 4
- 3) Number of full-time fixed income security analysts : 2
- 4) Does firm have an in-house bond trader : No
- 5) Number of portfolio managers and investment analysts added in:
 past three years 3
- 6) Number of portfolio managers and investment analysts which have left firm in:
 past three years 0 their initiative 0 firm's initiative 0
- 7) Elaboration on answers to questions #5 and #6.

Win Neuger joined WAM in June 1982 as a strategist and senior portfolio manager. In addition, a research analyst and money market portfolio manager/analyst were added over the last three years.

- 8) Experience of fixed income investment personnel:

	<u>NUMBER OF YEARS</u>		
	<u>Average</u>	<u>Low</u>	<u>High</u>
Portfolio Managers	<u>9</u>	<u>3</u>	<u>14</u>
Security Analysts	<u>17</u>	<u>5</u>	<u>30</u>

- 9) Average number of accounts per manager: Accounts are managed on a team basis.
 Limit on number of accounts per manager : _____
- 10) Biographical data on key investment personnel, including education and work experience (attached to this report).

- 11) Describe the firm's financial incentives for investment managers.

In addition to salaries, WAM portfolio managers are eligible for bonuses based on: the profitability of WAM, revenue growth of WAM, and the individual portfolio managers' performances relative to a predetermined market index. First Interstate has made a concerted effort to separate WAM's operations, particularly with respect to compensation, from the rest of the bank.

- 12) Identify the member(s) of the firm who would most likely be directly responsible for managing the SBI's account.

All WAM portfolios are managed jointly by the firm's three portfolio managers. Win Neuger would be the SBI's primary contact.

- 13) How many accounts and total dollars does he (they) currently manage?

Neuger acts as liason for five accounts valued at \$1 billion.

- 14) Describe firm's experience with managing the money of public funds.

Alemeda County

Client Base

- 1) For accounts under management as of December 31, 1983 provide the following information:

<u>Accounts</u>	<u>Number</u>	<u>Total</u>	<u>Assets (market value in millions)</u>			<u>Percent of Total Assets Fully Discretionary</u>
			<u>Stocks</u>	<u>Bonds</u>	<u>Cash</u>	
Total *	37	\$2,122	0	\$1,171	\$951	100%
Fixed Income only	22	\$1,722	XXX	\$847	\$875	100%

*Includes fixed income portion of balanced accounts.

- 2) Account breakdown by number of fixed income accounts:

	<u>12-31-81</u>	<u>12-31-82</u>	<u>12-31-83</u>
Under \$10 million	<u>5</u>	<u>6</u>	<u>4</u>
\$10-\$50	<u>5</u>	<u>5</u>	<u>8</u>
\$50-\$100	<u>5</u>	<u>3</u>	<u>3</u>
\$100-\$200	<u>1</u>	<u>4</u>	<u>6</u>
Over \$200	<u>1</u>	<u>1</u>	<u>1</u>
Size of Largest Account		<u>\$415 million</u>	
Size of Smallest Account		<u>\$1.3 million</u>	

- 3) Describe any limitations the firm currently imposes or plans to impose regarding:

Number of Clients	None
Total assets under management	None
Maximum account size	None
Minimum account size	None

- 4) List the names, and the dollar sizes of firm's five largest fixed income accounts.

Pacific Telesis	\$415 million
Lockheed	250 million
First Interstate Retirement Account	185 million
Rockwell	145 million
Pacific American Income Shares (closed-end bond fund)	100 million

- 5) Provide the names and sizes of all accounts greater than \$5 million that the firm lost in 1981, 1982 and 1983.

None.

- 6) Describe firm's management fee schedule.

.500% first \$5 million
.25% - next \$45 million
.125% - next \$50 million
.100% - thereafter

- 7) Relevant information on past performance.

Performance results represent an equal-weighted average of all discretionary fixed income employee benefit accounts.

II. INVESTMENT PHILOSOPHY

- 1) Describe in broad terms the firm's overall fixed income investment management philosophy.

Western Asset Management (WAM) views bonds as a stabilizing element within a total portfolio context. It believes that investment risks are more effectively taken in the equity component of a total portfolio. Thus WAM's investment goal is to achieve consistent stable returns in the bond portfolio and thereby dampen the volatility of total portfolio returns.

The firm recognizes the importance of interest rates on fixed income portfolio returns. But WAM believes that it is extremely difficult to consistently forecast short-run movements in interest rates. Thus, the firm prefers to avoid making significant bets, either longer or short, on the near-term direction of rates. WAM's policy is to maintain portfolio duration within a 3-7 year band (and for all practical purposes that band is 4-6 years).

WAM believes that the majority of its valued-added comes from appropriate sector decisions. Based on its economic analyses, the firm will significantly overweight particular sectors, with a varying emphasis primarily on governments, corporates, and pass-throughs. Much less importance is placed on maturity and issue selection. WAM stresses the long-term nature of all its maturity, sector, and issue decisions, with an avoidance of sizable short-run portfolio restructuring.

III. INVESTMENT MANAGEMENT PROCESS

- 1) Describe the firm's management style with respect to asset allocation.

WAM is a minimal asset allocator, preferring to make only small, gradual movements in and out of cash over the course of an interest rate cycle. The firm does not attempt to anticipate short-term moves in interest rates.

- 2) List range of cash position of fixed income portfolio over last three years.

0-25%.

- 3) List the range of the average duration (or maturity if duration figures unavailable) of fixed income portfolio over last three years.

4-6 years.

- 3) Describe the firm's process for formulating, implementing and controlling fixed income investment strategy. In particular, discuss the subjects of economic analysis, interest rate forecasting and issue selection.

WAM's Fixed Income Strategy Group is composed of the firm's three portfolio managers. Its decisions are made on a consensus basis. The group meets informally as needed to modify the firm's economic and interest rate forecast and its investment strategy. At least once a quarter the group formally reviews its forecasts. The emphasis is on identifying the current point of the economy in the business and interest rate cycles and projecting the general trends over the next six months. Utilizing this analysis, the group also attempts to forecast the position and shape of yield curve over this period, analyze the total return impact on various maturities, and thereby select a maturity target for the portfolio.

The economic, interest rate and yield curve forecasts are also employed to select sector and quality weightings. In traditional fashion, projected yield spreads are compared with historical norms. As the economy peaks, the firm tends to move into governments. As the economy troughs, the portfolio emphasis shifts to lower quality issues.

The firm's issue selection focuses on identifying misperceived issues vis-a-vis the firm's economic and interest rate forecasts and identifying special situations that might result in misvaluations (e.g., issues created by mergers).

WAM employs two credit analysts, who combine their own research with that of outside credit rating organizations, to attempt to avoid negative surprises within the portfolio. Efforts are not made to anticipate rating changes.

- 4) Assuming the firm's managers have read the SBI's investment guidelines (i.e., restrictions concerning allowable investments and targets relating to risk and return), can they work under them?

The firm believes that the SBI's duration and quality guidelines are extremely consistent with its own investment style.

- 5) Will the SBI's account be managed on a separate basis? If not, explain?

Yes, however, subject to client restrictions, all accounts are managed in a similar manner.

- 6) Assuming that the SBI's account is one of the larger that the firm will manage, does the firm anticipate any problems in absorbing the SBI's assets with respect to investment process, philosophy etc.?

The firm manages roughly \$2 billion in fixed income assets and thus envisions no difficulty in taking on the SBI's account.

IV. ORGANIZATION CAPABILITIES

Fixed income research process

- 1) What are the firm's principle research and information sources?

WAM's primary research sources are Wall Street economists and fixed income analysts. It also utilizes the equity research produced by the equity management subsidiary of First Interstate.

- 2) How does the firm focus fixed income research.

Based on the firm's economic outlook, quality and sector decisions are made consistent with that forecast. Issues are then selected within these targets.

Trading

- 1) Give a description of the firm's trading operation.

The portfolio managers conduct most of WAM's trading, although trading assistants are utilized to monitor activity.

- 2) To what extent is the firm willing to allocate the commission dollars generated in the management of SBI assets to the SBI for its research purposes?

The firm is willing to make such arrangements with the SBI.

Communication

- 1) How does the firm communicate with clients?

Format and Frequency

Monthly asset listing.
Quarterly investment strategy paper.

Who in the organization would handle contact with the SBI?

Win Neuger

Will the firm's account manager be available for periodic visits to the SBI's offices?

Yes.

V. FINANCIAL VIABILITY AND ETHICS

- 1) Provide a copy of the firm's most recent ADV II statement (to be attached to this report).
- 2) Describe any censure by the SEC or any litigation pending against the firm.

None.

- 3) Is the firm aware of any potential conflicts of interest in managing SBI assets?

No.

IV. MISCELLANEOUS

- 1) Does the firm envision utilizing financial futures in its management of the SBI's account. Explain

The firm has not used financial futures for its clients yet, but it is closely studying the subject. WAM is interested in employing futures in situations where it finds particular bonds outside of its normal duration range attractive. By hedging the purchase of such issues it reduces the interest rate risk yet allows the firm to benefit from the non-market related return on these bonds.

- 2) Notify the firm that State Street Bank will be managing its cash reserves.

Done.

- 3) Does the firm have any significant objections to funding its SBI account out of the current SBI's current holdings?

No.



Win J. Neuger

Win J. Neuger, Vice President and Director of Fixed Income Management, joined Western Asset Management Company in June, 1982. He earned his A.B. in International Relations from Dartmouth College graduating Cum Laude and received his MBA from the Amos Tuck School of Business Administration at Dartmouth.

Prior to joining Western Asset, Mr. Neuger was associated with Northwestern National Bank of Minneapolis (Northwest Bancorp). He joined Northwestern in 1973 as an equity analyst specializing in financial industries and utilities. In 1976, Mr. Neuger was appointed Chairman of the Fixed Income Group and in 1980 became Vice President and Manager of Northwestern's Fixed Income Products Division. In this capacity he was responsible for a staff that developed the strategy for over \$1 billion in fixed income assets, performed credit and bond market research and actively managed \$600 million in fixed income portfolios.

Mr. Neuger is a Chartered Financial Analyst and a member of the Los Angeles Society of Financial Analysts and the Financial Analysts Federation. As Director of Fixed Income Management, his responsibilities include chairmanships of the Fixed Income Strategy and Implementation Groups and membership on the Investment Policy Group, Portfolio Review Group and Managing Committee. He also serves as an investment officer of Pacific American Liquid Assets, Inc. and Pacific American Income Shares, Inc., investment companies managed by Western Asset.



Kent S. Engel

Kent S. Engel, Vice President, joined First Interstate Bank of California in 1969. He received his B.A. Degree in Economics from California State University, Los Angeles.

Mr. Engel's initial responsibilities included those of Portfolio Manager in the court trust area in addition to security analysis. He subsequently worked on the management of fixed income securities for Western Asset Management Company, with special emphasis on private placements and bond swap analysis.

In recent years as Senior Portfolio Manager of the Fixed Income Department, Mr. Engel's primary responsibilities have focused on the research and management of fixed income securities for large retirement funds and other institutional clients. He also serves as Vice President and Portfolio Manager for Pacific American Income Shares, a NYSE listed closed-end bond fund. As a member of Western Asset's Fixed Income Policy Group, Mr. Engel plays an active role in the development of our investment strategy for fixed income portfolios.



W. Curtis Livingston

W. Curtis Livingston, President and Chief Executive Officer, joined Western Asset Management Company in December, 1980 as Senior Vice President and Director of Fixed Income Management. He graduated from Duke University, Durham, North Carolina, with a B.A. in Economics and Accounting, and received his M.B.A. from Dartmouth's Amos Tuck School.

Mr. Livingston began his career in the investment management business in 1970 after several years on Wall Street. In charge of fixed income investments for the Ford Foundation, New York, he organized and managed their active fixed income investment management program from 1970 to 1973. He then joined Fischer, Francis, Trees & Watts, a New York based fixed income counseling firm. There, as the senior non-founder and head portfolio manager, he spent six years in the development and management of FFTW's client assets. In 1979, Mr. Livingston joined FMR Investment Management Service, Boston, as a principal in the establishment of their fixed income management program.

His experience covers many aspects of investment management and the related organizational and administrative responsibilities.

Mr. Livingston is a member of the Jonathan Club and the Altadena Town and Country Club. He serves as a member of the Investment Committee of the College Endowment Funding Plan.

He is a senior officer of Pacific American Liquid Assets, Inc. and Pacific American Income Shares, Inc. investment companies managed by Western Asset. In addition, Mr. Livingston is Chief Operating Officer of First Interstate Investment Services, Western Asset's parent. As a Director of Western Asset, he also serves on the boards of her sister companies, Thomas L. Karsten Associates, Spoor Behrins Campbell and Young, and First Interstate Portfolio Lending Services, Inc.

Richard A. Miller

Richard A. Miller, Senior Vice President and Director of Marketing, was graduated from the California Maritime Academy in 1946 as a Third Mate, Ensign, USNR. Mr. Miller earned his B.S. degree in Business Administration, Finance Major, from UCLA in 1950. He graduated from the UCLA Executive Program in 1960, and earned a license as a Certified Financial Planner from the College for Financial Planning in 1979.

Upon graduation from UCLA he entered the investment business with Revel Miller & Company, which later merged into Hornblower & Weeks in 1960. He held positions of sales manager for both firms and was a Director and Western Division Manager for Hornblower & Weeks, Hemphill-Noyes from 1971 to 1977. In 1979 he became President of Wagenseller & Durst and resigned in 1980 to become Director of Marketing and Client Communications for Western Asset Management Company.

Mr. Miller was also the Chairman of the California District Conduct Committee of the National Association of Securities Dealers during 1979; is a founding member and current Vice President of The UCLA Foundation; is past Chairman of the UCLA Chancellor's Associates, Past Chairman of the UCLA Hospital Board of Trustees; and is a member of the University Club and the Santa Monica Beach Club.

FIXED INCOME MANAGER PORTFOLIO STATISTICS GLOSSARY

Table 1: Money Manager Rolling Time Period Analysis

Table 2: Money Manager Historical Returns

- Total Return** - A measure of investment performance which, for bond portfolios, includes interest income as well as the realized and unrealized appreciation or depreciation in the portfolio's market value.
- Real Return** - Total return less inflation as measured by the Consumer Price Index.
- Market Index Return** - Total return produced by the Merrill Lynch Master Bond Index. The index includes all publicly traded investment grades (BAA or better) bonds with a maturity greater than one year and a market capitalization greater than \$10 million. (It excludes foreigners and pass-throughs.) The index serves as a passive management bogey against which an active bond manager's performance can be compared.
- Total Standard Deviation of Returns** - Measure of the total risk of a portfolio of assets. Total standard deviation of returns is a statistical measure of the dispersion of portfolio returns. The higher (lower) a portfolio's historical standard deviation, the wider (narrower) the dispersion of returns or the more (less) a portfolio's historical returns have tended to deviate from its historical average return.
- Beta** - Degree to which the returns on the manager's fixed income portfolio are sensitive to movements in the bond market's return. By definition, the market has a beta of 1.0. Portfolios with betas greater (less) than 1.0 have above (below) average sensitivity to market moves.
- R2** - Diversification measure which represents the extent to which a manager's fixed income holdings statistically resemble the bond market. Low (high) diversification portfolios will experience returns which are not well (are well) correlated with those of the market. By definition, the market has a diversification measure of 1.0.

Alpha (Residual Return)

- Nonmarket-related component of a portfolio's return. A portfolio's alpha represents the return which a manager is able to earn above that produced by an unmanaged portfolio having identical market risk. A positive (negative) alpha indicates that a manager has outperformed (underperformed) a passive strategy on a risk-adjusted basis. Alpha is generally interpreted as representing the value added (subtracted) as a result of market timing and/or selection decisions on the part of the manager.

Residual Standard Deviation

- Residual risk of the portfolio which is due to independent or nonmarket factors. Residual risk captures the amount of portfolio variability caused by events that affect particular industries, market sectors, or individual securities. It is that portion of portfolio variability which cannot be explained by the market-related risk that the manager takes on.

Alpha/Residual

Standard Deviation - A measure of investment performance which compares the nonmarket related return or reward earned per unit of nonmarket related risk incurred.

Table 3: Money Manager Correlation Analysis - Total Returns

Table 4: Money Manger Correlation Analysis - Residual Returns

Correlation Coefficient

- A measure of the degree to which two managers' portfolio returns move together. The values of the correlation coefficient can range from -1.0 to +1.0. A perfect positive [+1.0] (negative [-1.0]) indicates that the two returns always move in the same (opposite) direction and in a constant proportion. A correlation coefficient less than +1.0 indicates that two managers' portfolio returns do not move in perfect lockstep and that total portfolio return volatility can be reduced by combining the two managers' portfolios.

Table 5: Total Portfolio Statistics (Representative Portfolio)

Market Value	- Total current value of fixed income assets in the manager's representative portfolio which could be generated by liquidating all assets in the portfolio.
Yield to Maturity	- The compounded annualized return that the portfolio would produce if it were held to maturity and all cash flows were reinvested at an interest rate equal to the yield to maturity.
Par Value	- The par or face value is the fixed amount of principal which the issuer agrees to pay to the bond holder at maturity.
Duration	- A measure of the average life of a bond or bond portfolio. Duration is a weighted average maturity where the weights are stated in present value terms. Specifically, the time in the future that a cash flow is received is weighted by the proportion that the present value of the cash flow contributes to the total present value or price of the bond.
Time to Maturity	- Number of years remaining until the average bond in the portfolio reaches maturity.
Current yield	- Annual coupon payment of the manager's bond portfolio divided by the market value of manager's bond portfolio.
Coupon	- The periodic interest payment received on the manager's bond portfolio stated as a percent of par value.
Moody Quality	- Rating given to fixed income securities by Moody's Corp. which indicates the financial strength of the issuer and other factors related to the likelihood of full and timely payment of interest and principal.
Sector	- Economic sector of the economy in which an issuer of fixed income securities conducts business.

MONEY MANAGER ROLLING TIME PERIOD ANALYSIS

ALLIANCE CAPITAL

<u>TIME PERIOD</u>	<u>TOTAL RETURN</u>	<u>REAL RETURN</u>	<u>MARKET INDEX</u>
7712 TO 7812	1.8	-7.1	1.4
7806 TO 7906	8.1	-2.8	7.7
7812 TO 7912	0.1	-13.2	2.3
7906 TO 8006	0.2	-14.1	4.1
7912 TO 8012	-2.1	-14.6	3.4
8006 TO 8106	-7.0	-16.6	-4.1
8012 TO 8112	4.9	-3.9	7.0
8106 TO 8206	9.7	2.6	12.4
8112 TO 8212	33.7	29.8	29.9
8206 TO 8306	32.5	30.0	28.9
8212 TO 8312	5.9	2.1	7.8

MONEY MANAGER ROLLING TIME PERIOD ANALYSIS

DISCOUNT CORPORATION

TIME PERIOD -----	TOTAL RETURN -----	REAL RETURN -----	MARKET INDEX -----
7712 TO 7812	-999.9	-999.9	1.4
7806 TO 7906	10.4	-0.5	7.7
7812 TO 7912	11.2	-2.1	2.3
7906 TO 8006	15.8	1.5	4.1
7912 TO 8012	15.3	2.8	3.4
8006 TO 8106	10.1	0.5	-4.1
8012 TO 8112	14.8	6.0	7.0
8106 TO 8206	17.1	10.0	12.4
8112 TO 8212	21.7	17.9	29.9
8206 TO 8306	17.1	14.6	28.9
8212 TO 8312	7.6	3.9	7.8

MONEY MANAGER ROLLING TIME PERIOD ANALYSIS

INVESTMENT ADVISERS

TIME PERIOD -----	TOTAL RETURN -----	REAL RETURN -----	MARKET INDEX -----
7712 TO 7812	2.2	-6.7	1.4
7806 TO 7906	7.0	-3.9	7.7
7812 TO 7912	6.4	-6.9	2.3
7906 TO 8006	11.2	-3.1	4.1
7912 TO 8012	7.5	-5.0	3.4
8006 TO 8106	0.3	-9.3	-4.1
8012 TO 8112	8.5	-0.4	7.0
8106 TO 8206	12.6	5.5	12.4
8112 TO 8212	30.1	26.2	29.9
8206 TO 8306	29.7	27.1	28.9
8212 TO 8312	10.0	6.3	7.8

MONEY MANAGER ROLLING TIME PERIOD ANALYSIS

LEHMAN BROTHERS

<u>TIME PERIOD</u>	<u>TOTAL RETURN</u>	<u>REAL RETURN</u>	<u>MARKET INDEX</u>
7712 TO 7812	4.5	-4.4	1.4
7806 TO 7906	7.8	-3.1	7.7
7812 TO 7912	6.4	-6.9	2.3
7906 TO 8006	9.4	-4.9	4.1
7912 TO 8012	8.4	-4.1	3.4
8006 TO 8106	3.5	-6.1	-4.1
8012 TO 8112	11.4	2.5	7.0
8106 TO 8206	14.4	7.3	12.4
8112 TO 8212	30.7	26.8	29.9
8206 TO 8306	27.4	24.9	28.9
8212 TO 8312	6.5	2.8	7.8

MONEY MANAGER ROLLING TIME PERIOD ANALYSIS

MILLER ANDERSON

<u>TIME PERIOD</u>	<u>TOTAL RETURN</u>	<u>REAL RETURN</u>	<u>MARKET INDEX</u>
7712 TO 7812	-999.9	-999.9	1.4
7806 TO 7906	-999.9	-999.9	7.7
7812 TO 7912	-999.9	-999.9	2.3
7906 TO 8006	-999.9	-999.9	4.1
7912 TO 8012	-999.9	-999.9	3.4
8006 TO 8106	-999.9	-999.9	-4.1
8012 TO 8112	4.1	-4.8	7.0
8106 TO 8206	16.8	9.8	12.4
8112 TO 8212	42.1	38.3	29.9
8206 TO 8306	38.8	36.3	28.9
8212 TO 8312	11.5	7.8	7.8

MONEY MANAGER ROLLING TIME PERIOD ANALYSIS

LOOMIS SAYLES

TIME PERIOD -----	TOTAL RETURN -----	REAL RETURN -----	MARKET INDEX -----
7712 TO 7812	1.4	-7.5	1.4
7806 TO 7906	7.4	-3.5	7.7
7812 TO 7912	2.8	-10.5	2.3
7906 TO 8006	6.3	-8.0	4.1
7912 TO 8012	5.0	-7.5	3.4
8006 TO 8106	-2.9	-12.5	-4.1
8012 TO 8112	7.0	-1.9	7.0
8106 TO 8206	12.3	5.3	12.4
8112 TO 8212	36.2	32.4	29.9
8206 TO 8306	36.4	33.9	28.9
8212 TO 8312	9.0	5.3	7.8

MONEY MANAGER ROLLING TIME PERIOD ANALYSIS

MORGAN STANLEY

<u>TIME PERIOD</u>	<u>TOTAL RETURN</u>	<u>REAL RETURN</u>	<u>MARKET INDEX</u>
7712 TO 7812	4.8	-4.1	1.4
7806 TO 7906	8.8	-2.2	7.7
7812 TO 7912	5.8	-7.5	2.3
7906 TO 8006	10.9	-3.4	4.1
7912 TO 8012	9.4	-3.1	3.4
8006 TO 8106	4.3	-5.4	-4.1
8012 TO 8112	20.4	11.5	7.0
8106 TO 8206	19.5	12.4	12.4
8112 TO 8212	30.6	26.8	29.9
8206 TO 8306	31.5	29.0	28.9
8212 TO 8312	10.2	6.5	7.8

MONEY MANAGER ROLLING TIME PERIOD ANALYSIS

NORWEST BANK MINNEAPOLIS

<u>TIME PERIOD</u>	<u>TOTAL RETURN</u>	<u>REAL RETURN</u>	<u>MARKET INDEX</u>
7712 TO 7812	4.5	-4.3	1.4
7806 TO 7906	9.5	-1.4	7.7
7812 TO 7912	1.1	-12.2	2.3
7906 TO 8006	3.9	-10.4	4.1
7912 TO 8012	1.1	-11.5	3.4
8006 TO 8106	-7.3	-16.9	-4.1
8012 TO 8112	2.0	-6.8	7.0
8106 TO 8206	10.2	3.1	12.4
8112 TO 8212	33.8	29.9	29.9
8206 TO 8306	31.0	28.5	28.9
8212 TO 8312	9.0	5.2	7.8

MONEY MANAGER ROLLING TIME PERIOD ANALYSIS

PACIFIC INVESTMENT MANAGEMENT

<u>TIME PERIOD</u>	<u>TOTAL RETURN</u>	<u>REAL RETURN</u>	<u>MARKET INDEX</u>
7712 TO 7812	5.2	-3.7	1.4
7806 TO 7906	9.4	-1.5	7.7
7812 TO 7912	4.2	-9.1	2.3
7906 TO 8006	8.4	-5.9	4.1
7912 TO 8012	4.9	-7.7	3.4
8006 TO 8106	-4.1	-13.7	-4.1
8012 TO 8112	6.7	-2.1	7.0
8106 TO 8206	13.1	6.0	12.4
8112 TO 8212	32.3	28.5	29.9
8206 TO 8306	31.1	28.5	28.9
8212 TO 8312	10.7	6.9	7.8

MONEY MANAGER ROLLING TIME PERIOD ANALYSIS

ROSENBERG CAPITAL

<u>TIME PERIOD</u>	<u>TOTAL RETURN</u>	<u>REAL RETURN</u>	<u>MARKET INDEX</u>
7712 TO 7812	5.7	-3.2	1.4
7806 TO 7906	9.7	-1.2	7.7
7812 TO 7912	4.0	-9.3	2.3
7906 TO 8006	7.3	-7.0	4.1
7912 TO 8012	4.6	-7.9	3.4
8006 TO 8106	-7.3	-16.9	-4.1
8012 TO 8112	11.0	2.2	7.0
8106 TO 8206	13.8	6.8	12.4
8112 TO 8212	17.8	14.0	29.9
8206 TO 8306	23.3	20.8	28.9
8212 TO 8312	8.9	5.1	7.8

MONEY MANAGER ROLLING TIME PERIOD ANALYSIS

T. ROWE PRICE

TIME PERIOD -----	TOTAL RETURN -----	REAL RETURN -----	MARKET INDEX -----
7712 TO 7812	4.6	-4.3	1.4
7806 TO 7906	9.2	-1.7	7.7
7812 TO 7912	8.0	-5.3	2.3
7906 TO 8006	9.8	-4.5	4.1
7912 TO 8012	2.8	-9.7	3.4
8006 TO 8106	-3.4	-13.0	-4.1
8012 TO 8112	6.8	-2.1	7.0
8106 TO 8206	12.7	5.7	12.4
8112 TO 8212	24.1	20.3	29.9
8206 TO 8306	24.1	21.6	28.9
8212 TO 8312	9.7	6.0	7.8

MONEY MANAGER ROLLING TIME PERIOD ANALYSIS

WENTWORTH HAUSER

<u>TIME PERIOD</u>	<u>TOTAL RETURN</u>	<u>REAL RETURN</u>	<u>MARKET INDEX</u>
7712 TO 7812	6.2	-2.6	1.4
7806 TO 7906	8.3	-2.6	7.7
7812 TO 7912	7.8	-5.5	2.3
7906 TO 8006	11.6	-2.7	4.1
7912 TO 8012	6.3	-6.3	3.4
8006 TO 8106	1.3	-8.3	-4.1
8012 TO 8112	11.9	3.0	7.0
8106 TO 8206	17.2	10.1	12.4
8112 TO 8212	32.3	28.5	29.9
8206 TO 8306	27.0	24.4	28.9
8212 TO 8312	9.6	5.9	7.8

MONEY MANAGER ROLLING TIME PERIOD ANALYSIS

WESTERN ASSET MANAGEMENT

TIME PERIOD -----	TOTAL RETURN -----	REAL RETURN -----	MARKET INDEX -----
7712 TO 7812	3.6	-5.2	1.4
7806 TO 7906	8.3	-2.6	7.7
7812 TO 7912	4.3	-9.0	2.3
7906 TO 8006	6.9	-7.4	4.1
7912 TO 8012	5.6	-6.9	3.4
8006 TO 8106	-0.9	-10.6	-4.1
8012 TO 8112	7.8	-1.0	7.0
8106 TO 8206	12.6	5.5	12.4
8112 TO 8212	32.2	28.4	29.9
8206 TO 8306	30.8	28.3	28.9
8212 TO 8312	9.6	5.9	7.8

MONEY MANAGER HISTORICAL RETURNS

8009 TO 8312

MANAGER -----	TOTAL RETURN -----
ALLIANCE CAPITAL	13.4
DISCOUNT CORPORATION	14.6
INVESTMENT ADVISERS	15.0
LEHMAN BROTHERS	15.1
LOOMIS SAYLES	16.4
MILLER ANDERSON	17.0
MORGAN STANLEY	19.0
NORWEST BANK MINNEAPOLIS	13.0
PACIFIC INVESTMENT MGMT.	15.2
ROSENBERG CAPITAL	12.0
T. ROWE PRICE	12.7
WENTWORTH HAUSER	15.3
WESTERN ASSET MANAGEMENT	15.4
ML BOND INDEX	13.8
CONSUMER PRICE INDEX	5.9
90 TREASURY BILLS	12.4

MONEY MANAGER HISTORICAL RETURNS

7712 TO 8312

MANAGER -----	TOTAL RETURN -----
ALLIANCE CAPITAL	6.8
DISCOUNT CORPORATION	-999.9
INVESTMENT ADVISERS	10.4
LEHMAN BROTHERS	11.0
LOOMIS SAYLES	9.7
MILLER ANDERSON	-999.9
MORGAN STANLEY	13.2
NORWEST BANK MINNEAPOLIS	8.0
PACIFIC INVESTMENT MGMT.	10.3
ROSENBERG CAPITAL	8.6
T. ROWE PRICE	9.1
WENTWORTH HAUSER	12.0
WESTERN ASSET MANAGEMENT	10.1
ML BOND INDEX	8.2
CONSUMER PRICE INDEX	8.5
90 TREASURY BILLS	11.3

MONEY MANAGER HISTORICAL RISK-RETURN ANALYSIS

8009 TO 8312

MANAGER	TOTAL RETURN	TSDEV	BETA	R2	ALPHA	RSDEV	AL/RDEV
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ALLIANCE CAPITAL	13.4	11.67	1.15	0.99	-0.50	1.38	-0.362
DISCOUNT CORP.	14.6	4.65	0.43	0.87	1.35	1.78	0.760
INVESTMENT ADVISERS	15.0	10.03	0.99	0.98	1.07	1.41	0.759
LEHMAN BROTHERS	15.1	9.19	0.91	0.98	1.24	1.34	0.929
LOOMIS SAYLES	16.4	11.75	1.16	0.98	2.25	1.55	1.450
MILLER ANDERSON	17.0	14.78	1.45	0.98	2.62	2.17	1.210
MORGAN STANLEY	19.0	8.78	0.80	0.85	4.94	3.60	1.373
NORWEST BANK MPLS	13.0	11.98	1.17	0.97	-0.84	2.25	-0.371
PIMCO	15.2	11.01	1.09	0.99	1.18	1.27	0.931
ROSENBERG CAPITAL	12.0	10.69	0.90	0.71	-1.39	5.98	-0.233
T. ROWE PRICE	12.7	7.40	0.72	0.95	-0.76	1.77	-0.428
WENTWORTH HAUSER	15.3	8.05	0.72	0.82	1.70	3.58	0.474
WESTERN ASSET MGMT	15.4	9.66	0.95	0.99	1.50	1.15	1.299

MONEY MANAGER CORRELATION ANALYSIS
TOTAL RETURNS
8009 TO 8312

MANAGER	1	2	3	4	5	6	7	8	9
1 ALLIANCE CAPITAL	1.000	0.926	0.990	0.991	0.994	0.976	0.913	0.984	0.987
2 DISCOUNT CORP.	0.926	1.000	0.912	0.936	0.910	0.918	0.883	0.900	0.919
3 INVESTMENT ADV.	0.990	0.912	1.000	0.980	0.986	0.986	0.898	0.993	0.997
4 LEHMAN BROTHERS	0.991	0.936	0.980	1.000	0.985	0.972	0.943	0.970	0.978
5 LOOMIS SAYLES	0.994	0.910	0.986	0.985	1.000	0.977	0.911	0.979	0.981
6 MILLER ANDERSON	0.976	0.918	0.986	0.972	0.977	1.000	0.902	0.985	0.991
7 MORGAN STANLEY	0.913	0.883	0.898	0.943	0.911	0.902	1.000	0.874	0.891
8 NORWEST BANK	0.984	0.900	0.993	0.970	0.979	0.985	0.874	1.000	0.993
9 PIMCO	0.987	0.919	0.997	0.978	0.983	0.993	0.891	0.993	1.000
10 ROSENBERG CAPITAL	0.799	0.827	0.809	0.810	0.800	0.853	0.834	0.774	0.831
11 T. ROWE PRICE	0.966	0.925	0.963	0.947	0.954	0.970	0.877	0.965	0.972
12 WENTWORTH HAUSER	0.913	0.843	0.902	0.924	0.886	0.892	0.893	0.914	0.899
13 WESTERN ASSET	0.995	0.927	0.981	0.988	0.988	0.976	0.915	0.979	0.985

MONEY MANAGER CORRELATION ANALYSIS
TOTAL RETURNS
8009 TO 8312

MANAGER	10	11	12	13
1 ALLIANCE CAPITAL	0.799	0.966	0.913	0.995
2 DISCOUNT CORP.	0.827	0.925	0.843	0.927
3 INVESTMENT ADV.	0.809	0.963	0.902	0.981
4 LEHMAN BROTHERS	0.810	0.947	0.924	0.988
5 LOOMIS SAYLES	0.800	0.954	0.886	0.988
6 MILLER ANDERSON	0.853	0.970	0.892	0.976
7 MORGAN STANLEY	0.834	0.877	0.893	0.915
8 NORWEST BANK	0.774	0.965	0.914	0.979
9 PIMCO	0.831	0.972	0.899	0.985
10 ROSENBERG CAPITAL	1.000	0.854	0.675	0.816
1 T. ROWE PRICE	0.854	1.000	0.892	0.972
12 WENTWORTH HAUSER	0.675	0.892	1.000	0.921
3 WESTERN ASSET	0.816	0.972	0.921	1.000

MONEY MANAGER CORRELATION ANALYSIS
RESIDUAL RETURNS
8009 TO 8312

MANAGER	1	2	3	4	5	6	7	8	9
1 ALLIANCE CAPITAL	1.000	0.053	0.358	0.457	0.594	-.466	-.020	0.340	-.013
2 DISCOUNT CORP.	0.053	1.000	-.189	0.300	-.280	-.056	0.192	-.225	-.138
3 INVESTMENT ADV.	0.358	-.189	1.000	-.051	0.205	0.269	-.247	0.738	0.806
4 LEHMAN BROTHERS	0.457	0.300	-.051	1.000	0.147	-.431	0.596	-.156	-.377
5 LOOMIS SAYLES	0.594	-.280	0.205	0.147	1.000	-.274	-.033	0.120	-.219
6 MILLER ANDERSON	-.466	-.056	0.269	-.431	-.274	1.000	-.167	0.433	0.561
7 MORGAN STANLEY	-.020	0.192	-.247	0.596	-.033	-.167	1.000	-.434	-.546
8 NORWEST BANK	0.340	-.225	0.738	-.156	0.120	0.433	-.434	1.000	0.750
9 PIMCO	-.013	-.138	0.806	-.377	-.219	0.561	-.546	0.750	1.000
10 ROSENBERG CAPITAL	-.667	0.211	-.389	-.359	-.554	0.225	0.274	-.594	-.145
11 T. ROWE PRICE	-.054	0.235	-.050	-.546	-.406	0.183	-.202	0.188	0.170
12 WENTWORTH HAUSER	0.283	0.009	0.094	0.476	-.219	-.068	0.361	0.313	0.006
13 WESTERN ASSET	0.606	0.074	-.199	0.293	0.150	-.452	0.034	0.066	-.203

MONEY MANAGER CORRELATION ANALYSIS
RESIDUAL RETURNS
8009 TO 8312

MANAGER	10	11	12	13
1 ALLIANCE CAPITAL	-.667	-.054	0.283	0.606
2 DISCOUNT CORP.	0.211	0.235	0.009	0.074
3 INVESTMENT ADV.	-.389	-.050	0.094	-.199
4 LEHMAN BROTHERS	-.359	-.546	0.476	0.293
5 LOOMIS SAYLES	-.554	-.406	-.219	0.150
6 MILLER ANDERSON	0.225	0.183	-.068	-.452
7 MORGAN STANLEY	0.274	-.202	0.361	0.034
8 NORWEST BANK	-.594	0.188	0.313	0.066
9 PIMCO	-.145	0.170	0.006	-.203
10 ROSENBERG CAPITAL	1.000	0.261	-.390	-.382
11 T. ROWE PRICE	0.261	1.000	0.112	0.177
12 WENTWORTH HAUSER	-.390	0.112	1.000	0.451
13 WESTERN ASSET	-.382	0.177	0.451	1.000

MONEY MANAGER HISTORICAL RISK-RETURN ANALYSIS

7712 TO 8312

MANAGER	TOTAL RETURN	TSDEV	BETA	R2	ALPHA	RSDEV	AL/RDEV
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ALLIANCE CAPITAL	6.8	13.81	1.16	0.99	-0.77	1.37	-0.564
DISCOUNT CORP.	-999.9	-999.90	-999.90	-999.90	-999.90	-999.90	-999.900
INVESTMENT ADVISERS	10.4	9.40	0.76	0.93	1.33	2.53	0.526
LEHMAN BROTHERS	11.0	8.12	0.65	0.90	1.47	2.67	0.549
LOOMIS SAYLES	9.7	12.63	1.05	0.98	1.58	1.74	0.908
MILLER ANDERSON	-999.9	-999.90	-999.90	-999.90	-999.90	-999.90	-999.900
MORGAN STANLEY	13.2	8.92	0.71	0.90	3.74	2.93	1.278
NORWEST BANK MPLS	8.0	13.67	1.14	0.98	0.33	2.06	0.162
PIMCO	10.3	11.51	0.96	0.98	1.80	1.85	0.972
ROSENBERG CAPITAL	8.6	11.02	0.85	0.85	-0.08	4.42	-0.019
T. ROWE PRICE	9.1	6.46	0.45	0.69	-0.82	3.70	-0.221
WENTWORTH HAUSER	12.0	8.47	0.67	0.88	2.50	3.01	0.830
WESTERN ASSET MGMT	10.1	10.14	0.85	0.98	1.29	1.45	0.889

MONEY MANAGER CORRELATION ANALYSIS
TOTAL RETURNS
7712 TO 8312

MANAGER	1	2	3	4	5	6	7	8	9
1 ALLIANCE CAPITAL	1.000	0.960	0.944	0.991	0.941	0.989	0.985	0.901	0.836
2 INVESTMENT ADV.	0.960	1.000	0.981	0.980	0.934	0.965	0.984	0.878	0.898
3 LEHMAN BROTHERS	0.944	0.981	1.000	0.965	0.950	0.937	0.962	0.862	0.890
4 LOOMIS SAYLES	0.991	0.980	0.965	1.000	0.952	0.982	0.989	0.897	0.861
5 MORGAN STANLEY	0.941	0.934	0.950	0.952	1.000	0.922	0.937	0.900	0.823
6 NORWEST BANK	0.989	0.965	0.937	0.982	0.922	1.000	0.990	0.892	0.825
7 PIMCO	0.985	0.984	0.962	0.989	0.937	0.990	1.000	0.916	0.878
8 ROSENBERG CAPITAL	0.901	0.878	0.862	0.897	0.900	0.892	0.916	1.000	0.808
9 T. ROWE PRICE	0.836	0.898	0.890	0.861	0.823	0.825	0.878	0.808	1.000
10 WENTWORTH HAUSER	0.937	0.918	0.919	0.926	0.921	0.946	0.935	0.825	0.768
11 WESTERN ASSET	0.990	0.977	0.970	0.993	0.953	0.983	0.991	0.905	0.871

MONEY MANAGER CORRELATION ANALYSIS
TOTAL RETURNS
7712 TO 8312

MANAGER	10	11
1 ALLIANCE CAPITAL	0.937	0.990
2 INVESTMENT ADV.	0.918	0.977
3 LEHMAN BROTHERS	0.919	0.970
4 LOOMIS SAYLES	0.926	0.993
5 MORGAN STANLEY	0.921	0.953
6 NORWEST BANK	0.946	0.983
7 PIMCO	0.935	0.991
8 ROSENBERG CAPITAL	0.825	0.905
9 T. ROWE PRICE	0.768	0.871
10 WENTWORTH HAUSER	1.000	0.947
11 WESTERN ASSET	0.947	1.000

MONEY MANAGER CORRELATION ANALYSIS
RESIDUAL RETURNS
7712 TO 8312

MANAGER	1	2	3	4	5	6	7	8	9
1 ALLIANCE CAPITAL	1.000	0.016	0.049	0.372	-.052	0.352	0.169	-.373	0.196
2 INVESTMENT ADV.	0.016	1.000	0.799	0.675	0.247	0.274	0.754	-.087	0.665
3 LEHMAN BROTHERS	0.049	0.799	1.000	0.614	0.518	0.012	0.532	-.066	0.585
4 LOOMIS SAYLES	0.372	0.675	0.614	1.000	0.312	0.084	0.477	-.276	0.532
5 MORGAN STANLEY	-.052	0.247	0.518	0.312	1.000	-.321	0.034	0.231	0.210
6 NORWEST BANK	0.352	0.274	0.012	0.084	-.321	1.000	0.550	-.307	0.064
7 PIMCO	0.169	0.754	0.532	0.477	0.034	0.550	1.000	0.125	0.680
8 ROSENBERG CAPITAL	-.373	-.087	-.066	-.276	0.231	-.307	0.125	1.000	0.208
9 T. ROWE PRICE	0.196	0.665	0.585	0.532	0.210	0.064	0.680	0.208	1.000
10 WENTWORTH HAUSER	0.099	0.149	0.277	-.075	0.294	0.370	0.165	-.272	-.048
11 WESTERN ASSET	0.366	0.580	0.734	0.626	0.340	0.162	0.587	-.106	0.639

MONEY MANAGER CORRELATION ANALYSIS
RESIDUAL RETURNS
7712 TO 8312

MANAGER	10	11
1 ALLIANCE CAPITAL	0.099	0.366
2 INVESTMENT ADV.	0.149	0.580
3 LEHMAN BROTHERS	0.277	0.734
4 LOOMIS SAYLES	-.075	0.626
5 MORGAN STANLEY	0.294	0.340
6 NORWEST BANK	0.370	0.162
7 PIMCO	0.165	0.587
8 ROSENBERG CAPITAL	-.272	-.106
9 T. ROWE PRICE	-.048	0.639
10 WENTWORTH HAUSER	1.000	0.374
11 WESTERN ASSET	0.374	1.000